As filed with the Securities and Exchange Commission on April 22, 2019

Registration No. 333-

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

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

SEQLL INC.
(Exact name of registrant as specified in its charter)

Delaware	3826	46-5319744
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

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

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

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

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

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

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

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐ (Do not check if a smaller reporting company)	Smaller reporting company	☒
Emerging growth company	☒		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price[2]	Amount of Registration Fee
Common Stock, $0.00001 par value per share[1]	$ 9,936,000	$1,205
Underwriters' Warrants[3][4]	—	—
Shares of Common Stock underlying Underwriters' Warrants	$ 540,000	$ 66
Total:	$10,476,000	$1,271

(1) Includes 202,500 shares that the underwriters have the option to purchase to cover over-allotments, if any.
(2) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(a) under the Securities Act of 1933, as amended, or the Securities Act.
(3) Registers warrants to be granted to the underwriters, or designees, for an amount equal to 5% of the number of the shares of common stock sold to the public, and assuming a per share exercise price equal to 125% of the price per share in this offering. See "Underwriting" on page 96 for information on underwriting arrangements.
(4) No registration fee required pursuant to Rule 457(g) under the Securities Act.

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

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

SUBJECT TO COMPLETION, DATED APRIL 22, 2019

PRELIMINARY PROSPECTUS

1,350,000 Shares of Common Stock

This is the initial public offering of our common stock. Prior to this offering there has been no public market for our common stock. We are offering 1,350,000 shares of common stock. We currently expect the initial public offering price to be between $5.40 and $6.40 per share.

We plan to apply to list our common stock on the Nasdaq Capital Market, or Nasdaq, under the symbol "SQL."

We are an "emerging growth company" as that term is defined in the Jumpstart Our Business Startups Act of 2012, and as such, have elected to take advantage of certain reduced public company reporting requirements.

Investing in our common stock involves a high degree of risk. Please read "Risk Factors" beginning on page 9 of this prospectus.

	Per Share	Total
Public offering price	$	$
Underwriting discounts and commissions(1)	$	$
Proceeds to us, before expenses	$	$

(1) Does not include warrants that are issuable by us to the underwriters for 5% of the shares of common stock sold in the offering at a price per share equal to 125% of the initial public offering price or certain out-of-pocket expenses of the underwriters that are reimbursable by us. See "Underwriting" beginning on page 96 of this prospectus for a description of the compensation payable to the underwriters.

We have granted to the underwriters an option to purchase up to 202,500 additional shares of common stock at the public offering price, less the underwriting discounts and commissions, for 45 days after the date of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Delivery of the shares of common stock is expected to be made on or about , 2019.

WallachBeth Capital, LLC

The date of this prospectus is , 2019

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We have not, and the underwriters have not, authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under the circumstances and in the jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

Through and including , 2019 (90 days after the date of this prospectus), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the obligation of dealers to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

MARKET AND INDUSTRY DATA

Certain of the market data and other statistical information contained in this prospectus, such as the size, growth and share of the services industry, are based on information from independent industry organizations and other third-party sources, industry publications, surveys and forecasts. The global DNA next generation sequencing market information referenced in this prospectus is based on *DNA Next Generation Sequencing Market* published by The Insight Partners on January 2019. The global RNA next generation sequencing market information referenced in this prospectus is based on *NGS-Based RNA Seq. Market* published by The Insight Partners on December 2018. Some market data and statistical information contained in this prospectus are also based on our management's estimates and calculations, which we derived from our review and interpretation of the independent sources, our internal market and brand research and our knowledge of the industries in which we operate. While we believe that each of these studies and publications is reliable, neither we nor the underwriters have independently verified market or industry data from third-party sources. We also believe our internal company research is reliable and the definitions of our market and industry are appropriate, though neither this research nor these definitions have been verified by any independent source. Information that is based on estimates, forecasts, projections or similar methodologies is inherently subject to uncertainties, and actual events or circumstances may differ materially from events and circumstances that are assumed in this information.

Although we are not aware of any misstatements regarding the industry data that we present in this prospectus, our estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under "Risk Factors," "Forward-Looking Statements," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this prospectus.

TRADEMARKS AND TRADE NAMES

We use our registered trademarks and trade names, such as "SeqLL," "tSMS," "DRS" and "Sequence the Lower Limit," in this prospectus. Solely for convenience, trademarks and trade names referred to in this prospectus appear without the ®and ™ symbols, but those references are not intended to indicate that we will not assert, to the fullest extent under applicable law, our rights, or that the applicable owner will not assert its rights, to these trademarks and trade names. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

GLOSSARY OF CERTAIN SCIENTIFIC TERMS

The medical and scientific terms used in this prospectus have the following meanings:

“cDNA” means complementary DNA created from RNA through the use of reverse transcriptase.

“DNA” means deoxyribonucleic acid, a self-replicating material present in nearly all living organisms as the carrier of genetic information.

“Double helix” is a structure formed by a pair of parallel helices intertwined around a common axis. DNA is a double helix.

“DRS” means Direct RNA Sequencing, a method for sequencing RNA molecules without conversion to complementary DNA (cDNA) or amplification via PCR.

“Epigenetic” is the changes in gene expression that do not involve changes in the DNA sequence.

“FDA” means the U.S. Food and Drug Administration.

“Flow cell” means an optical cell used for detection and measurement of biological samples.

“Gene” is a portion of a DNA that serves as the basic unit of heredity.

“Gene expression” is a process by which information from a gene is used for the synthesis of a functional product.

“Genome” is an organism’s complete set of DNA.

“Helix” is an extended spiral chain of molecules.

“Ligation” is a process of joining two DNA strands by chemical linkage.

“Microfluidics” is the science of manipulating and controlling fluids, usually in very small ranges.

“Next Generation Sequencing” means a high-throughput sequencing to sequence DNA and RNA molecules much more quickly and cheaply than the previously used techniques.

“NGS” means Next Generation Sequencing.

“Nucleic Acid” means a complex organic substance present in living cells such as DNA or RNA.

“Nucleotide bases” or “Nucleotides” are building blocks of nucleic acids and include adenine (“A”), cytosine (‘C”), guanine (“G”), thymine (“T”) and uracil (“U”).

“PCR” means Polymerase Chain Reaction and is a technique used to generate multiple copies (thousands to millions) of DNA sequences.

“RNA” means ribonucleic acid, a material present in all living cells which acts as a messenger carrying instructions from the DNA for controlling the synthesis of proteins.

“Transcript” is a single stranded RNA synthesized by transcription of DNA.

“Transcriptome” is an organism’s complete set of RNA molecules at an active cellular state.

“tSMS” means True Single Molecule Sequencing.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and does not contain all of the information that you should consider before investing in our common stock. This summary is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere in this prospectus. You should read this entire prospectus carefully, including the information set forth in the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes thereto contained in this prospectus, before making an investment decision. Unless the context requires otherwise, references in this prospectus to "we," "us," "our," "our company," or similar terminology refer to SeqLL Inc.

Overview

We are a life sciences instrumentation and services company focused on providing our True Single Molecule Sequencing (tSMS™) technology to the scientific and medical community in order to accelerate the understanding of the molecular mechanisms of disease and fundamental biological processes. We have developed and offer a unique, proprietary sequencing technology platform in the multi-billion-dollar Next Generation Sequencing ("NGS") market, ideally suited for emerging applications in the research and development of precision medicine and epigenetic investigations. Our technology advantage provides a simple method of quantifying DNA and RNA molecules at single molecule resolution, eliminating bias from PCR amplification or other preparation steps required by other technologies. Data produced by our tSMS platform generate accurate, reproducible molecular profiles, often revealing previously unknown characteristics and providing new insights into the biology being researched. Leveraging our expertise with the tSMS technology platform, we aim to provide the scientific and medical communities with tools for development of diagnostic and therapeutic applications that could lead to improved outcomes for patients with chronic and fatal diseases.

The global DNA NGS market is projected to grow from $6.82 billion in 2019 to $22.72 billion in 2025, representing a compound annual growth rate ("CAGR") of 21.7%. The global RNA NGS market is projected to grow from $1.63 billion in 2019 to $4.96 billion in 2025, representing CAGR of 24.4%. We believe the potential market for our products and services in the combined DNA NGS and RNA NGS market is approximately $1.03 billion in 2019 and is projected to grow to approximately $5.26 billion by 2025. Our tSMS platform is unique as it is a single molecule platform capable of sequencing billions of molecules in parallel, positions us as both competitive and complementary with other NGS platforms.

Our strategy is to generate revenue through product sales, sequencing services and research grants in applying our single molecule sequencing platform to develop a wide variety of DNA-based, RNA-based and epigenetics-based applications. Our customers are consumers of our NGS products and services, such as academic and government institutes, hospitals and medical centers, pharmaceutical and biotechnology companies, non-profit research organizations and agricultural genomics organizations. Our technology has potentially significant implications in DNA and RNA-based discovery of biomarkers for the early detection of diseases, specifically cardiovascular artery disease and epithelial cancer. As we unlock the inherent advantages of single molecule sequencing, we aim to integrate our tSMS platform in the development of novel applications in the rapidly emerging precision medicine market.

Our revenues, which were $1.3 million and $0.8 million for the year ended December 31, 2017 and 2018, respectively, have been constrained by our lack of marketing which the proceeds from this offering will address. Since inception we have incurred net losses, have used net cash in our operations and have funded our business and operations primarily through proceeds from promissory notes from our majority stockholder, private placement of equity securities and convertible notes. Following completion of our initial public offering, we are planning on raising additional funds in 2020. However, there can be no assurance that we will be successful in securing adequate funds.

Background on Genetic Sequencing

Genetic inheritance in living systems is conveyed through a naturally occurring information storage system known as deoxyribonucleic acid, or DNA. DNA stores information in linear chains of chemical bases known as adenine ("A"), cytosine ("C"), guanine ("G") and thymine ("T"). Inside living cells, these

chains usually exist in pairs bound together in a double helix by complementary base pairs. A “genome” is an organism’s complete set of DNA, which for humans consists of approximately three billion DNA base pairs. Ribonucleic acid, or RNA, is a molecule used by organisms to convey genetic information. A “transcriptome” is an organism’s complete set of RNA molecules at an active cellular state and includes both protein coding and noncoding RNA transcripts.

Studying genomes and transcriptomes helps scientists understand the inheritance of biological characteristics, developmental biology and normal and disease states of cells and organisms. Genetic variation accounts for many of the differences between individuals, such as eye color and blood group, and also affects a person’s susceptibility to certain diseases such as cancer, heart disease or diabetes, among others. Genetic variation can also determine a person’s response to drug therapies.

There are different sequencing technologies available for sequencing genetic material, each producing the sequence data in a unique format. Some of the technologies produce millions of sequence reads with a very short read length, generally less than 300 nucleotide bases. These technologies are generally referred as short read NGS platforms. Other technologies produce few thousand sequence reads of a very long read length, generally more than 1,000 nucleotide bases. These technologies are generally referred as long read NGS platforms. Both, the short as well as long read NGS technologies have their advantages in various settings. For *de novo* assembly of genomes and long RNA transcripts, the long contiguous reads from the long read NGS technologies are preferred. The short reads can be used to further fill in the gaps from the data. For the molecular counting application, a large amount of independent reads from the short read NGS technologies are preferred. Different genes are present in varying amounts in biological samples, and the success of the technique is highly dependent on the dynamic range of the detection technology.

Over the past two decades, researchers and clinicians have used NGS technologies to gain a deeper understanding of nucleic acids and the biological mechanisms they control. These areas of scientific advancement encompass the identification of disease-associated biomarkers, discovery of molecules for drug development, novel applications for early screening and diagnosis, and, more recently, the creation of genome editing technologies. Taken together, these technologies are having a profound impact on the lives of patients and hold the promise for delivering cures for many life-threatening diseases. While progress is being made on multiple fronts through the combined utilization of these technologies, there remains a wide gap between the expanding needs of researchers and the available tools with capabilities specialized to meet this recurring demand. This results in a significant market opportunity. Based upon our technology development, scientific collaborations and activities, and our understanding of these markets, we believe that the tSMS platform is uniquely positioned to address key segments of the life sciences market by providing access to a broad range of single molecule applications.

Our Solution

Our tSMS platform offers a single molecule solution for DNA and RNA sequencing by performing detection of nucleic acids without the need for complex sample manipulation. Researchers can choose to analyze from thousands to many billions of single molecules in a single experiment. This ability to analyze nucleic acids at single molecule resolution, without any library preparation, amplification, or ligation steps, is the main driver behind the highly accurate and reproducible data generated by our tSMS platform.

Our platform captures individual DNA and RNA molecules that range from less than 20 bases to more than 1 kilobase as an input. Our tSMS technology can perform sequencing analysis on short read as well as long read DNA samples. Unlike many other sequencing platforms, minimal amounts of sample preparation are required to use our tSMS technology. In addition, our system does not require the routine PCR amplification needed by most NGS systems, thereby avoiding systematic amplification bias. Our system still requires isolation and preparation of DNA or RNA samples; however, our system is adaptable to most purification and preparation kits and techniques that are currently available in the market and no additional or special steps are required to prepare the samples for sequencing.

The platform combines a patented fluorescence-based optical detection apparatus with a precision microfluidics and thermal control system to perform sequencing-by-synthesis reactions. The limitation of an optical-based detection system is longer sequencing time compared to non-optical sequencing platforms.

Furthermore, as with any short read-length platform, the reads must be long enough to provide sufficient information to unambiguously place them on a known template sequence, or to generate unambiguous overlaps to reconstruct the sequence if no template is available.

The real time image processing software, supplemented with a powerful machine learning module, overlays the images to produce sequence information for individual molecules as an output. We believe that our tSMS platform offers critical advantages over existing technologies as follows:

- Minimal Sample Preparation — Preserves the sample integrity, and avoids the bias and errors in the sequence data output;
- Greater Sensitivity — our unique, amplification and library-free sequencing technology enables detection of subtle changes in molecular profiles that we believe are undetectable with other methods;
- High Accuracy — Each molecule is sequenced individually without the need for phasing, which provides an accurate dataset across a broad range of molecular inputs; and
- Seamless Flexibility — Provides the ability to control throughput and apply diverse applications. The tSMS platform has the ability to scale the throughput across a range of small to large projects.

Beginning in 2017, we introduced a benchtop sequencer that reduces the physical space demands that the previous version of sequencer requires. The benchtop sequencer uses a redesigned system architecture that improved the instrument reliability.

Since our founding in 2014, we have developed relationships with a number of leading academic and scientific institutions around the globe who are also customers. Based upon feedback from these customers, we have made refinements to our platform that address their needs. As a consequence, we believe our platform has greater sensitivity and accuracy than our competitors'; however, as a tradeoff, our platform takes longer to produce results.

Our Business Strategy

Our mission is to empower researchers with improved genetic tools that enable scientists and physicians to better understand the molecular mechanisms of disease and the underlying biological systems. This knowledge is essential to the continued development of new breakthroughs in genomic medicine that address the critical concerns involved with today's precision medicine.

We generate our revenues through a combination of product sales, fee-for-sequencing services, and research grants. We plan to expand these revenues from recurring and prospective clients by the following key strategies:

- Provide the scientific community with a combination of sequencing services and NGS instrumentation to serve markets that we believe are inadequately addressed by existing technologies.
    - Assist in the development of new classes of RNA-based diagnostics.
    - Collaborate with researchers to enhance pharmacogenomics and biomarker discovery.
    - Support drug developers seeking a better understanding of the side-effects of their new drugs.
- Continue to innovate and develop new aspects of our products and technology, applications and instrumentation through scientific collaborations, including grants.
- Leverage our expertise and the broad applicability of the tSMS platform to grow into new markets through strategic collaborations, partnerships, existing data sets, and customers.
- Maintain a strong culture and network of technical resources while continuously attracting new talent to build an industry leading single molecule solutions company.

We have assembled an experienced management team, board of directors, scientific founders and advisory board who bring extensive industry experience to our Company and business strategy. The members of our team have deep experience in discovering, developing and commercializing with a particular focus on sequencing products and applications, having built emerging growth companies from the ground up and led management teams of larger established companies in diverse sectors of the economy.

As we expand product lines to address the diagnosis of disease, regulation by governmental authorities in the United States will become an increasingly significant factor in development, testing, production and marketing. Products that we develop in the molecular diagnostic markets, depending on their intended use, may be regulated as medical devices or in vitro diagnostic products ("IVDs") by the FDA. We have not sought FDA approval of our sequencers because to date we have marketed them for research purposes and not for clinical diagnostics. We will likely need to pursue regulatory approvals from the FDA when we attempt to enter the diagnostics market, which process is expensive, involves a high degree of risk and there is no assurance that we will be able to develop a commercially viable product.

Summary Risks Related to Our Business

Our business is subject to a number of risks, including risks that may prevent us from achieving our business objectives or may adversely affect our business, financial condition, results of operations, cash flows and prospects that you should consider before making a decision to invest in our common stock.

Since inception we have incurred net losses, have used net cash in our operations and have funded our business and operations primarily through proceeds from promissory notes from our majority stockholder, private placement of equity securities and convertible notes. We expect to continue to require significant future financing to fund our operating activities for the foreseeable future as we continue our research and development activities to develop products that can be commercialized to generate revenue. Our future capital needs are uncertain and our ability to obtain additional financing will be subject to a number of factors, including market conditions, our operating performance and investor sentiment. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our products, restrict our operations or obtain funds by entering into agreements on unattractive terms, which would likely have a material adverse effect on our business, stock price and our relationships with third parties with whom we have business relationships, at least until additional funding is obtained. As a result, substantial doubt exists about our ability to continue as a going concern as of the date hereof. The accompanying financial statements do not include any adjustment for the possible future effects on the recoverability and classification of recorded assets, or the amount and classification of liabilities that might be different should we be unable to continue as a going concern based on the outcome of the uncertainties described above. Other risks include, but are not limited to, the following:

- Our products and services may fail to achieve and sustain sufficient market acceptance at levels sufficient to support our costs.
- We may be unable to develop new products in a cost-effective manner, or at all.
- We have limited experience as a commercial company and may not be able to manage our growth effectively.
- We operate in a highly competitive industry and we may not be able to compete effectively.
- Rapidly changing technology could render our products, services or technology obsolete.
- We may be unable to adequately protect our intellectual property worldwide.
- Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for certain litigation that may be initiated by our stockholders which limits our stockholders' ability to obtain a different judicial forum for disputes with us or our directors, officers or employees.

- We have relied on our majority shareholder to fund our working capital needs, including portions of our overhead.

- We may be unable to raise additional funds in the future on favorable terms or at all.

For a more detailed discussion of some of the risks you should consider, you are urged to carefully review and consider the section titled “Risk Factors” beginning on page 9 of this prospectus.

Implications of Being an Emerging Growth Company

We qualify as an “emerging growth company,” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For as long as we remain an emerging growth company, we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies. These provisions include, but are not limited to:

- being permitted to have only two years of audited financial statements and only two years of related selected financial data and management’s discussion and analysis of financial condition and results of operations disclosure;

- an exemption from compliance with the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act;

- reduced disclosure about executive compensation arrangements in our periodic reports, registration statements and proxy statements; and

- exemptions from the requirements to seek non-binding advisory votes on executive compensation or golden parachute arrangements.

In addition, the JOBS Act permits emerging growth companies to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies. We are not choosing to “opt out” of this provision. We will remain an emerging growth company until the earliest of (i) the end of the fiscal year following the fifth anniversary of the completion of this offering, (ii) the first fiscal year after our annual gross revenues exceed $1.07 billion, (iii) the date on which we have, during the immediately preceding three-year period, issued more than $1.0 billion in non-convertible debt securities or (iv) the end of any fiscal year in which the market value of our common stock held by non-affiliates exceeds $700 million as of the end of the second quarter of that fiscal year.

Corporate Information

We were incorporated in Delaware on April 3, 2014. Our principal executive offices are located at 317 New Boston Street, Suite 210, Woburn, Massachusetts 01801, and our telephone number is (781) 460-6016. Our corporate website address is www.seqll.com. The information contained on or accessible through our website is not a part of this prospectus.

Our tSMS technology has been in development since 2004 at Helicos Biosciences Corporation (“Helicos”), which pioneered the first generation tSMS™ technology resulting in its commercialization as the HeliScope Genetic Analysis System. In 2013, Daniel Jones, a former scientist at Helicos, formed SeqLL as a limited liability company to further the development of tSMS. SeqLL then purchased much of our physical assets from Helicos, including, among other things, sequencers, laboratory equipment, internal servers, protocols and data analysis procedures through Helicos’ bankruptcy proceedings that began in 2012. In addition, we entered into a non-exclusive license agreement for certain intellectual property of Helicos and the pioneering tSMS technology. We then established a revenue producing sequencing services and instrumentation business while in parallel we re-designed the original Helicos technology with customer-friendly user interface and a reliable system architecture.

THE OFFERING

Common stock offered by us	1,350,000 shares.
Underwriters' over-allotment option	We have granted the underwriters an option for a period of 45 days from the date of this prospectus to purchase an additional 202,500 shares of common stock.
Common stock to be outstanding after this offering	9,753,775 shares.
Use of proceeds	We currently intend to use the net proceeds from this offering as follows: (1) approximately $1.0 million to expand our commercial operations to grow sequencing services; (2) approximately $500,000 to build additional sequencing instruments to support sequencing services expansion; (3) approximately $500,000 to build consumables and lab resources to support sequencing services expansion; (4) approximately $1.0 million to improve and update our tSMS technology and instruments to develop additional applications; (5) approximately $1.0 million to support and expand our marketing and business development efforts in the United States and internationally; (6) the repayment of two promissory notes totaling $270,000 plus outstanding accrued interest; and (7) the balance for working capital and other general corporate purposes. See "Use of Proceeds" on page 32.
Risk Factors	See "Risk Factors" on page 9 a discussion of certain of factors to consider carefully before deciding to purchase any shares of our common stock.
Nasdaq Capital Market Symbol	"SQL"

The number of shares of our common stock to be outstanding after this offering is based on 4,864,862 shares of common stock outstanding as of April 19, 2019, the conversion of all outstanding shares of our preferred stock consented to by a majority of holders of our Series A preferred stock, into an aggregate of 3,130,622 shares of our common stock, and the conversion of our outstanding convertible notes and promissory note consented to by the holder of such notes, into an aggregate of 408,291 shares of our common stock, which conversions will occur immediately prior to the closing of this offering and excludes as of such date:

- 596,396 shares of our common stock issuable upon the exercise of warrants, at a weighted average exercise price of $2.32 per share;
- 67,500 shares of our common stock that may be issued upon exercise of the Underwriters' Warrants at an exercise price of $7.38 , which represents 5% of the shares of common stock being offered hereby and 125% of an assumed public offering price of $5.90 , which is the midpoint of the initial public offering price range reflected on the cover of this prospectus;
- 916,208 shares of our common stock issuable upon the exercise of outstanding stock options under our 2014 Equity Incentive Plan, or the 2014 Plan; and
- 164,873 shares of our common stock reserved for future issuance under the 2014 Plan.

Unless otherwise indicated, all information contained in this prospectus assumes:

- the conversion of all outstanding shares of our preferred stock into an aggregate of 3,130,622 shares of our common stock, consented by a majority of holders of our Series A preferred stock to occur immediately prior to the closing of this offering;

- the conversion of our outstanding convertible notes and promissory note into an aggregate of 408,291 shares of our common stock consented to by the holder of such notes to occur immediately prior to the closing of this offering;
- the completion of the 1.85-for-1 reverse stock split of our common stock that became effective on April 17, 2019;
- no exercise by the underwriters of their over-allotment option for 202,500 shares of our common stock or the warrants to purchase 67,500 shares of our common stock;
- no exercise of outstanding options or warrants described above; and
- the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior to the closing of this offering.

SUMMARY FINANCIAL DATA

The following tables set forth a summary of our historical financial data as of, and for the periods ended on, the dates indicated below. The consolidated statements of operations data for the years ended December 31, 2018 and 2017, and balance sheets data as of December 31, 2018 and 2017 are derived from our audited consolidated financial statements included elsewhere in this prospectus.

The following summary financial information should be read in connection with, and is qualified by reference to, our financial statements and related notes thereto and the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this prospectus. Our historical results are not necessarily indicative of results to be expected in any future period.

	For The Years Ended December 31,	
	2018	2017
Consolidated Statements of Operations:		
Revenue		
Sales	$ 756,303	$ 1,138,052
Other revenue	22,765	200,700
Total revenue	779,068	1,338,752
Cost of sales	674,281	1,084,518
Gross profit	**104,787**	**254,234**
Operating expenses		
Research and development	1,039,260	974,531
General and administrative	1,466,814	806,897
Total operating expenses	2,506,074	1,781,428
Operating loss	**(2,401,287)**	**(1,527,194)**
Other income and expenses		
Gain on settlement of liabilities	182,439	
Debt conversion expense	(438,873)	
Interest and other expenses	(230,296)	(179,740)
Total other expenses, net	(486,730)	(179,740)
Net loss	**(2,888,017)**	**(1,706,934)**
Net loss per share – basic and diluted	**$ (0.59)**	**$ (0.35)**
Weighted average common shares – basic and diluted	**4,864,862**	**4,864,862**

	As of December 31, 2018		
	Actual	Pro Forma[1]	Pro Forma as Adjusted[2][3]
Balance Sheet Data:			
Cash	$ 64,694	$ 64,694	$6,613,535
Working capital	$ 448,237	$ 448,237	$6,997,078
Total assets	$1,180,277	$ 1,180,277	$7,729,118
Total liabilities	$1,566,690	$ 845,980	$ 845,980
Total stockholders' equity/(deficit)	$ (386,413)	$ 334,297	$6,883,138

(1) Gives effect to the conversion of all outstanding shares of our preferred stock into an aggregate of 3,130,622 shares of our common stock, and the filing and effectiveness of our amended and restated certificate of incorporation, and the conversion of our outstanding convertible notes and promissory note into an aggregate of 408,291 shares of our common stock, which conversions will occur immediately prior to the closing of this offering.

(2) Reflects, in addition to the pro forma adjustment set forth in footnote (1), the sale of 1,350,000 shares of our common stock in this offering at an assumed initial public offering price of $5.90 per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) A $1.00 increase or decrease in the assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, as applicable, each of cash, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $1.2 million, assuming the number of shares offered by us, as stated on the cover page of this prospectus, remains unchanged and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of one hundred thousand in the number of shares we are offering would increase or decrease, as applicable, each of cash, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by $536,900, assuming the assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following information about these risks, together with the other information appearing elsewhere in this prospectus, including our financial statements, the notes thereto and the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding to invest in our common stock. The occurrence of any of the following risks could have a material and adverse effect on our business, reputation, financial condition, results of operations and future growth prospects, as well as our ability to accomplish our strategic objectives. As a result, the trading price of our common stock could decline and you could lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations and stock price.

As we have incurred recurring losses and negative cash flows since our inception, there is no assurance that we will be able to continue as a going concern absent additional financing, which we may not be able to obtain on favorable terms or at all.

We have incurred net losses since our incorporation in 2014 and we cannot be certain if or when we will produce sufficient revenue from our operations to support our costs. Even if profitability is achieved in the future, we may not be able to sustain profitability on a consistent basis. We expect to continue to incur substantial losses and negative cash flow from operations for the foreseeable future. Our financial statements included with this Form S-1 have been prepared assuming that we will continue as a going concern. We have concluded that substantial doubt about our ability to continue as a going concern exists and our auditors have made reference to this in their audit report on our audited consolidated financial statements for the year ended December 31, 2018. As a result, it may be more difficult for the Company to attract investors. Our future is dependent upon our ability to obtain financing and upon future profitable operations from the sale of future sequencing products.

Our ability to obtain additional financing will be subject to a number of factors, including market conditions, our operating performance and investor sentiment. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue our operations or obtain funds by entering into agreements on unattractive terms, which would likely have a material adverse effect on our business, stock price and our relationships with third parties with whom we have business relationships, at least until additional funding is obtained. If we do not have sufficient funds to continue operations, we could be required to seek bankruptcy protection or other alternatives that would likely result in our stockholders losing some or all of their investment in us.

We do not have any credit facilities as a source of future funds, and there can be no assurance that we will be able to raise sufficient additional capital on acceptable terms, or at all. We may seek additional capital through a combination of private and public equity offerings, debt financings and strategic collaborations. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. Debt financing, if obtained, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, could increase our expenses and require that our assets secure such debt. Moreover, any debt we incur must be repaid regardless of our operating results.

We are an early, commercial-stage company with a limited operating history.

We were incorporated in 2014 and we have had limited sales to date. As such, we have limited historical financial data upon which to base our projected revenue, planned operating expenses or upon which to evaluate us and our commercial prospects. Based on our limited experience in developing and marketing our existing products and services as well as launching new products, we may not be able to effectively:

- drive adoption of our current and future products and services;
- attract and retain customers for our products and services;
- provide appropriate levels of customer training and support for our products and services;
- implement an effective marketing strategy to promote awareness of our products and services;

- develop, manufacture and commercialize new products or achieve an acceptable return on our manufacturing or research and development efforts and expenses;
- anticipate and adapt to changes in our market or predict future performance
- accommodate customer expectations and demands with respect to our products and services;
- grow our market share by marketing and selling our products and services to new and additional market segments;
- maintain and develop strategic relationships with vendors and manufacturers to acquire necessary materials for the production of our existing or future products;
- adapt or scale our manufacturing activities to meet potential demand at a reasonable cost;
- avoid infringement and misappropriation of third-party intellectual property;
- obtain any necessary licenses to third-party intellectual property on commercially reasonable terms;
- obtain valid and enforceable patents that give us a competitive advantage;
- protect our proprietary technology; and
- attract, retain and motivate qualified personnel.

If our tSMS sequencing instruments or sequencing services fail to achieve and sustain sufficient market acceptance, we will not generate expected revenue and our business may not succeed.

We cannot be sure that our current or future tSMS sequencers or services will gain acceptance in the marketplace at levels sufficient to support our costs. We must successfully develop and commercialize our technology for use in a variety of life science and other applications. Even if we are able to implement our technology and develop products successfully, we and/or our sales and distribution partners may fail to achieve or sustain market acceptance of our products across the full range of our intended life science and other applications. Our sequencing instruments require reagent kits and consumables in order to produce sequencing data at sufficient levels to generate expected revenue. We will need to increase our internal capabilities and collaborate with other partners in order to successfully expand sales of our reagent kits and consumables in the markets we seek to reach, which we may be unable to do at the scale required to support our business.

Our research and development efforts may not result in the benefits we anticipate, and our failure to successfully market, sell, and commercialize our current and future sequencing instruments and services products could have a material adverse effect on our business, financial condition and results of operations.

We have dedicated significant resources to developing sequencing instruments and services. We are also engaged in substantial and complex research and development efforts such as Direct RNA Sequencing (DRS™), single cell sequencing, biomarker discovery, and epigenetic modification detection, which, if successful, may result in the introduction of new products in the future. Our research and development efforts are complex and require us to incur substantial expenses. We may not be able to develop and commercialize new products, or achieve an acceptable return, if any, on our research and development efforts and expenses. There can also be no assurance that we will be able to develop and manufacture future sequencing instruments and applications as a result of our research and development efforts, or that we will be able to market, sell and commercialize the products that result from our research and development efforts. We will need to expand our internal capabilities and seek new partnerships or collaborations in order to successfully market, sell and commercialize the sequencing instruments and applications that we have developed in the markets we seek to reach.

If we are unable to successfully develop and timely manufacture our sequencing instruments and reagents, our business may be adversely affected.

In light of the highly complex technologies involved in our sequencing products, including instruments and reagents, there can be no assurance that we will be able to manufacture and commercialize our new sequencing instruments and reagents on a timely basis or provide adequate support for such products. The

commercial success of our sequencers and reagents depends on a number of factors, including performance and reliability, our anticipating and effectively addressing customer preferences and demands, the success of our sales and marketing efforts, effective forecasting and management of instrument and sequencing services demand, purchase commitments and inventory levels and effective management of manufacturing and supply costs. Our ability to manufacture benchtop sequencers and reagents could be negatively impacted by changes to personnel, hiring delays, resource availability, supply chain disruption, facilities disruption and may be insufficient to achieve customer acceptance and growth.

The development of our sequencing instruments and reagents is complex and costly, requiring successful systems integration and reagent quality to generate usable data for customers and collaborators. Problems in the design or quality of our products may have a material and adverse effect on our brand, business, financial condition, and operating results. Unanticipated problems with our products could divert substantial resources, which may impair our ability to support our new and existing products, and could substantially increase our costs. If we encounter development challenges or discover errors in our products late in our development cycle, we may be forced to delay product shipments or the scaling of manufacturing or supply. The expenses or losses associated with delayed or unsuccessful product development or lack of market acceptance of our new products could materially and adversely affect our business, financial condition and results of operations.

We must successfully manage new product introductions and transitions related to the tSMS technology, we may incur significant costs during these transitions, and they may not result in the benefits we anticipate.

The introduction of future products may lead to our limiting or ceasing development of further enhancements to our existing sequencing instruments and applications, as we focus our resources on new products, and could result in reduced marketplace acceptance and loss of sales of our existing sequencing instruments or sequencing services, materially adversely affecting our revenue and operating results. The introduction of new products may also have a negative impact on our revenue in the near-term as our current and future customers may delay or cancel orders of existing sequencing instruments or sequencing services in anticipation of new products and we may also be pressured to decrease prices for our existing products. Further, we could experience difficulty in managing or forecasting customer reactions, purchasing decisions or transition requirements with respect to newly-launched sequencing instruments or sequencing services. We could incur significant costs in completing the transitions, including costs of inventory write-downs of our products, as current or future customers transition to the new products. If we do not successfully manage these product transitions, our business, reputation and financial condition may be materially and adversely affected.

Our future capital needs are uncertain and we may need to raise additional funds to support those needs.

We believe that the net proceeds from this offering, together with our cash generated from commercial sales and research activity, will enable us to fund our operating expenses and capital expenditure requirements for several years. However, we will need to raise substantial additional capital in the future to:

- expand our sales and marketing efforts to further commercialize our products;
- enter into collaboration agreements, if any, or in-license other products and technologies;
- hire additional personnel;
- add operational, financial and management information systems;
- incur increased costs as a result of operating as a public company;
- lease additional laboratory space to accommodate expanded operations and increased human resources;
- expand our research and development efforts to improve our product offerings and to successfully launch new products; and
- seek FDA approval to market our existing products or new products utilized for diagnostic purposes.

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;
- the cost of our research and development activities;
- the success of our existing distribution and marketing arrangements and our ability to enter into additional arrangements in the future; and
- the effect of competing technological and market developments.

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, our stockholders may experience dilution. Future debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or equity financing 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. If we do not have, or are not able to obtain, sufficient funds, we may have to delay development or commercialization of our products. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations. Any of these factors could have a material adverse effect on our financial condition, operating results and business.

Comprehensive tax reform legislation could adversely affect our business and financial condition.

On December 22, 2017, President Trump signed into law the Tax Cuts and Jobs Act, or the TCJA, that significantly reforms the Internal Revenue Code of 1986, as amended. The TCJA, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal tax 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 annual taxable income and elimination of net operating loss carrybacks and modifying or repealing many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions generally referred to as “orphan drugs”). We continue to examine the impact this tax reform legislation may have on our business. However, the effect of the TCJA on our business, whether adverse or favorable, is uncertain and may not become evident for some period of time. We urge investors to consult with their legal and tax advisers regarding the implications of the TCJA on an investment in our common stock.

We rely on other companies for certain components and materials and intend to outsource sub-assembly manufacturing in the future. We may not be able to successfully assemble or manufacture reagents and instruments or scale the manufacturing process necessary to build and test multiple products on a full commercial basis, which could materially harm our business.

Our products are complex and involve a large number of unique components, many of which require precision in manufacturing that is performed in-house using third party components. The nature of our products requires significant use of customized components that are currently available only from a limited number of sources, and in some cases, single sources. If we are required to purchase these components from alternative sources, it could take several months or longer to qualify the alternative sources. If we are unable to secure a sufficient supply of these product components on a timely basis, or if these components do not meet our expectations or specifications for quality and functionality, our operations and manufacturing will be materially and adversely affected, we could be unable to meet customer demand and our business and results of operations may be materially and adversely affected.

The operations of our suppliers could be disrupted by conditions unrelated to our business or operations or that are beyond our control, including but not limited to international trade restrictions or changes resulting from factors beyond our control. If our suppliers are unable or fail to fulfill their obligations to us for any reason, we may not be able to manufacture our instruments or reagents and satisfy customer demand or our obligations under sales agreements in a timely manner, and our business could be harmed as a result. Our current manufacturing process is characterized by long lead times between the

placement of orders for and delivery of our products. If we have received insufficient components to manufacture our products on a timely basis to meet customer demand, our sales and our gross margin may be adversely affected and our business could be materially harmed. If we are unable to reduce our manufacturing costs and establish and maintain reliable, high-volume manufacturing suppliers as we scale our operations, our business could be materially harmed.

We may be unable to consistently manufacture our instruments and reagents to the necessary specifications or in quantities necessary to meet demand at an acceptable cost.

In order to successfully generate revenue from our products, we need to supply our customers with products that meet their expectations relating to read length, error rates and data yield in accordance with established specifications. There is no assurance that we will be able to manufacture our products so that they consistently achieve the product specifications and quality that our customers expect, including any products developed for clinical uses. Problems in the design or quality of our products may have a material adverse effect on our brand, business, financial condition, and operating results. There is also no assurance that we will be able to increase manufacturing output and decrease costs, or that we will be successful in forecasting customer demand or manufacturing and supply costs. Furthermore, we may not be able to increase manufacturing to meet anticipated demand or may experience downtime in our existing or new manufacturing facilities. An inability to manufacture sequencing instruments and reagents or provide sequencing services, that consistently meet specifications, in necessary quantities and at commercially acceptable costs, will have a negative impact, and may have a material adverse effect, on our business, financial condition and results of operations.

Rapidly changing technology in life sciences and diagnostics could make our technology obsolete unless we continue to develop and commercialize new and improved products and pursue new market opportunities.

The biotechnology industry is characterized by rapid and significant technological changes, frequent new product introductions and enhancements and evolving industry standards. Our future success will depend on our ability to continually improve our products, to develop and introduce new products that address the evolving needs of our customers on a timely and cost-effective basis and to pursue new market opportunities. These new market opportunities may be outside the scope of our proven expertise or in areas where the market demand is unproven, and new products and services developed by us may not gain market acceptance. Our inability to develop and introduce new products and to gain market acceptance of such products could harm our future operating results. Unanticipated difficulties or delays in replacing existing products with new products or other new or improved products in sufficient quantities to meet customer demand could diminish future demand for our products and harm our future operating results.

Increased market adoption of our products by customers may depend on the availability of sample preparation and informatics tools, some of which may be developed by third parties.

Our commercial success may depend in part upon the development of sample preparation and software third parties for use with our sequencing and data analysis workflow. We cannot guarantee that third parties will develop tools that our current and future customers will find useful with our sequencing instruments given that our sample preparation methods are uniquely tailored to single molecule sequencing. Similarly, as a direct result of sequencing methodology not requiring amplification and bridge PCR, the downstream data analysis tools required for informatics analysis are specialized. A lack of complementary sample preparation options and software to enable broader usability may impede the adoption of our technology and may materially and adversely impact our business.

We operate in a highly competitive industry and if we are not able to compete effectively, our business and operating results will likely be harmed.

Some of our current competitors, including Illumina, Inc., Pacific Bioscience of California, Inc., Thermo Fisher Scientific Inc., and Beijing Genomic Institute as well as other potential competitors, have greater name recognition, more substantial intellectual property portfolios, longer operating histories, significantly greater financial, technical, research and/or other resources, more experience in new product development, larger and more established manufacturing capabilities and marketing, sales and support functions, and/or more established distribution channels to deliver products to customers than we do. These

competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. In light of these advantages, even if our technology is more effective than the products or service offerings of our competitors, current and potential customers might purchase competitive products and services instead of our products. There are also several companies that are in the process of developing or have already developed new, potentially competing technologies, products and/or services. Increased competition may result in pricing pressures, which could harm our sales, profitability or market share. Our failure to further enhance our existing products and to introduce new products to compete effectively could materially and adversely affect our business, financial condition or results of operations.

Single molecule sequencers are highly complex, have recurring support requirements and could have unknown defects or errors, which may give rise to claims against us or divert application of our resources from other purposes.

Products using our technology are highly complex and may develop or contain undetected defects or errors. Despite testing, defects or errors may arise in our products, which could result in a failure to maintain or increase market acceptance of our products, diversion of development resources, injury to our reputation and increased warranty, service and maintenance costs. New products or enhancements to our existing products in particular may contain undetected errors or performance problems that are discovered only after delivery to customers. If our products have reliability or other quality issues or require unexpected levels of support in the future, the market acceptance and utilization of our products may not grow to levels sufficient to support our costs and our reputation and business could be harmed. We generally ship our sequencing instruments with one year of service included in the purchase price with an option to purchase one or more additional years of service. We also provide a warranty for our consumables, which is generally limited to replacing, or at our option, giving credit for any consumable with defects in material or workmanship. Defects or errors in our products may also discourage customers from purchasing our products. The costs incurred in correcting any defects or errors may be substantial and could materially and adversely affect our operating margins. If our service and support costs increase, our business and operations may be materially and adversely affected.

In addition, such defects or errors could lead to the filing of product liability claims against us or against third parties who we may have an obligation to indemnify against such claims, which could be costly and time-consuming to defend and result in substantial damages. Although we have product liability insurance, any product liability insurance that we have or procure in the future may not protect our business from the financial impact of a product liability claim. Moreover, we may not be able to obtain adequate insurance coverage on acceptable terms. Any insurance that we have or obtain will be subject to deductibles and coverage limits. A product liability claim could have a serious adverse effect on our business, financial condition and results of operations.

We depend on the continuing efforts of our senior management team and other key personnel. If we lose members of our senior management team or other key personnel or are unable to successfully retain, recruit and train qualified scientists, engineers and other personnel, our ability to maintain and develop our products could be harmed and we may be unable to achieve our goals.

Our future success depends upon the continuing services of members of our senior management team and scientific and engineering personnel. We compete for qualified management and scientific personnel with other life science companies, academic institutions and research institutions, particularly those focusing on genomics. If one or more of our senior executives or other key personnel were unable or unwilling to continue in their present positions, we may not be able to replace them easily or at all, and other senior management may be required to divert attention from other aspects of the business. In addition, we do not have “key person” life insurance policies covering any member of our management team or other key personnel. The loss of any of these individuals or any inability to attract or retain qualified personnel, including scientists, engineers and others, could prevent us from pursuing collaborations and materially and adversely affect our support of existing products, product development and introductions, business growth prospects, results of operations and financial condition.

A significant portion of our potential sales depends on customers' spending budgets that may be subject to significant and unexpected variation which could have a negative effect on the demand for our products.

Our instruments represent significant capital expenditures for our customers. Potential customers for our current or future products include academic and government institutions, genome centers, medical research institutions, clinical laboratories, pharmaceutical, agricultural, biotechnology, diagnostic and chemical companies. Their spending budgets can have a significant effect on the demand for our products. Spending budgets are based on a wide variety of factors, including the allocation of available resources to make purchases, funding from government sources which is highly uncertain and subject to change, the spending priorities among various types of research equipment and policies regarding capital expenditures during economically uncertain periods. Any decrease in capital spending or change in spending priorities of our current and potential customers could significantly reduce the demand for our products. Any delay or reduction in purchases by potential customers or our inability to forecast fluctuations in demand could harm our future operating results.

Delivery of our reagents could be delayed or disrupted by factors beyond our control, and we could lose customers as a result.

We rely on third-party carriers for the timely delivery of our products both domestically and internationally. As a result, we are subject to carrier disruptions and increased costs that are beyond our control. Any failure to deliver products to our customers in a safe and timely manner may damage our reputation and brand and could cause us to lose customers. If our relationship with any of these third-party carriers is terminated or impaired or if any of these carriers are unable to deliver our products, the delivery and acceptance of our products by our customers may be delayed, which could harm our business and financial results. Specific reagents utilized in our sequencing reactions are temperature-sensitive and require to be kept and stored in a temperature controlled method in order to properly ship. In addition, many of the raw materials used during the manufacturing process of our reagents require temperature control during shipment. The failure to deliver our products in a safe, temperature-controlled, and timely manner may harm our relationship with our customers, increase our costs and otherwise disrupt our operations.

We are, and may become, subject to governmental regulations that may impose burdens on our operations, and the markets for our products may be narrowed.

We are subject, both directly and indirectly, to the adverse impact of government regulation of our operations and markets. Moreover, the life sciences industry, which is expected to be one of the primary markets for our technology, has historically been heavily regulated. There are, for example, laws in several jurisdictions restricting research in genetic engineering, which may narrow our markets. At a minimum, biosafety regulations enforced by local government must be followed and updated should new regulations pass the approval process. Given the evolving nature of this industry, legislative bodies or regulatory authorities may adopt additional regulations that may adversely affect our market opportunities. Additionally, if ethical and other concerns surrounding the use of genetic information, diagnostics or therapies become widespread, there may be less demand for our products.

Our business is also directly affected by a wide variety of government regulations applicable to business enterprises generally and to companies operating in the life science industry in particular. Failure to comply with government regulations or obtain or maintain necessary permits and licenses could result in a variety of fines or other censures or an interruption in our business operations which may have a negative impact on our ability to generate revenue and the cost of operating our business. In addition, changes to laws and government regulations could cause a material adverse effect on our business as we will need to adapt our business to comply with such changes.

Our products could become subject to regulation by the U.S. Food and Drug Administration or other domestic and international regulatory agencies, which could increase our costs and impede or delay our commercialization efforts, thereby materially and adversely affecting our business and results of operations.

Our products are not currently subject to the FDA clearance or approval since they are not intended for use in the diagnosis or treatment of disease. However, in the future, certain of our products or related applications, such as those that may be developed for clinical uses, could be subject to FDA regulation, or

the FDA's regulatory jurisdiction could be expanded to include our products. Even where a product is exempted from FDA clearance or approval, the FDA may impose restrictions as to the types of customers to which we or our partners can market and sell our products. Such regulation and restrictions may materially and adversely affect our business, financial condition and results of operations. In the event that we fail to obtain and maintain necessary regulatory clearances or approvals for products that we develop for clinical uses, or if clearances or approvals for future products and indications are delayed or not issued, our commercial operations may be materially harmed. Furthermore, even if we are granted regulatory clearances or approvals, they may include significant limitations on the indicated uses for the product, which may limit the market for the product. We do not have experience in obtaining FDA approvals and no assurance can be given that we will be able to obtain or to maintain such approvals. Furthermore, any approvals that we may obtain can be revoked if safety or efficacy problems develop.

Due to material weakness in our internal controls, our ability to produce accurate financial statements on a timely basis could be impaired, which would adversely affect our business and our stock price.

Ensuring that we have adequate internal financial and accounting controls and procedures in place to produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be evaluated frequently. We may in the future discover areas of our internal financial and accounting controls and procedures that need improvement. Operating as a public company requires sufficient resources within the accounting and finance functions in order to produce timely financial information, ensure the level of segregation of duties, and maintain adequate internal control over financial reporting customary for a U.S. public company.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States (U.S. GAAP). Our management does not expect that our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within our company will have been detected.

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

Under Section 382 of the Internal Revenue Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating losses ("NOLs") to offset future taxable income. Significant changes in our stock ownership could result in us being unable to utilize a material portion of our NOLs even if we attain profitability.

Our sales cycle is unpredictable and lengthy, which makes it difficult to forecast revenue and may increase the magnitude of quarterly or annual fluctuations in our operating results.

The sales cycle for our sequencing instruments is lengthy because they represent a major capital expenditure and generally require the approval of our customers' senior management. This may contribute to substantial fluctuations in our quarterly or annual operating results, particularly during the periods in which our sales volume is low. Factors that may cause fluctuations in our quarterly or operating results include, without limitation, market acceptance for our products; our ability to attract new customers; publications of studies by us, competitors or third parties; the timing and success of new product introductions by us or our competitors or other changes in the competitive dynamics of our industry, such as consolidation; the amount and timing of our costs and expenses; changes in our pricing policies or those of our competitors; general economic, industry and market conditions; the regulatory environment; expenses associated with warranty costs or unforeseen product quality issues; the hiring, training and retention of key employees, including our ability to grow our sales organization; litigation or other claims against us for intellectual property infringement or otherwise; our ability to obtain additional financing as necessary; and changes or trends in new technologies and industry standards. Because of these fluctuations, it is likely that in some future quarters our operating results will fall below the expectations of securities analysts or investors.

Our operations involve the use of hazardous materials, and we must comply with environmental, health and safety laws, which can be expensive and may adversely affect our business, operating results and financial condition.

Our research and development and manufacturing activities involve the use of hazardous materials, including chemicals and biological materials. Our sequencing reagents such as tris(2-carboxyethyl)phosphine and acetonitrile include hazardous materials. Accordingly, we are subject to federal, state, local and foreign laws, regulations and permits relating to environmental, health and safety matters, including, among others, those governing the use, storage, handling, exposure to and disposal of hazardous materials and wastes, the health and safety of our employees, and the shipment, labeling, collection, recycling, treatment and disposal of products containing hazardous materials. Liability under environmental laws and regulations can be joint and several and without regard to fault or negligence. For example, under certain circumstances and under certain environmental laws, we could be held liable for costs relating to contamination at our or our predecessors' past or present facilities and at third-party waste disposal sites. We could also be held liable for damages arising out of human exposure to hazardous materials. There can be no assurance that violations of environmental, health and safety laws will not occur as a result of human error, accident, equipment failure or other causes. The failure to comply with past, present or future laws could result in the imposition of substantial fines and penalties, remediation costs, property damage and personal injury claims, investigations, the suspension of production or product sales, loss of permits or a cessation of operations. Any of these events could harm our business, operating results and financial condition. We also expect that our operations will be affected by new environmental, health and safety laws and regulations on an ongoing basis, or more stringent enforcement of existing laws and regulations. New laws or changes to existing laws may result in additional costs and may increase penalties associated with violations or require us to change the content of our products or how we manufacture them, which could have a material adverse effect on our business, operating results and financial condition.

Ethical, legal, privacy and social concerns or governmental restrictions surrounding the use of genetic information could reduce demand for our technology.

Our products may be used to provide genetic information about humans and other living organisms. The information obtained from our products could be used in a variety of applications which may have underlying ethical, legal, privacy and social concerns, including the genetic engineering or modification of agricultural products or testing for genetic predisposition for certain medical conditions. Governmental authorities could, for safety, social or other purposes, call for limits on or regulation of the use of genetic testing. Such concerns or governmental restrictions could limit the use of our products, which could have a material adverse effect on our business, financial condition and results of operations.

Disruption of critical information technology systems or material breaches in the security of our systems could harm our business, customer relations and financial condition.

Information technology ("IT") helps us to operate efficiently, interface with customers, maintain financial accuracy and efficiently and accurately produce our financial statements. IT systems are used extensively in virtually all aspects of our business, including sales forecast, order fulfillment and billing, customer service, logistics, and management of data from running samples on our products. Our success depends, in part, on the continued and uninterrupted performance of our IT systems. IT systems may be vulnerable to damage from a variety of sources, including telecommunications or network failures, power loss, natural disasters, human acts, computer viruses, computer denial-of-service attacks, unauthorized access to customer or employee data or company trade secrets, and other attempts to harm our systems. Certain of our systems are not redundant, and our disaster recovery planning is not sufficient for every eventuality. Despite any precautions we may take, such problems could result in, among other consequences, disruption of our operations, which could harm our reputation and financial results.

If we do not allocate and effectively manage the resources necessary to build and sustain the proper IT infrastructure, we could be subject to transaction errors, processing inefficiencies, loss of customers, business disruptions or loss of or damage to intellectual property through security breach. If our data management systems do not effectively collect, store, process and report relevant data for the operation of our business, whether due to equipment malfunction or constraints, software deficiencies or human error,

our ability to effectively plan, forecast and execute our business plan and comply with applicable laws and regulations will be impaired, perhaps materially. Any such impairment could materially and adversely affect our reputation, financial condition, results of operations, cash flows and the timeliness with which we report our internal and external operating results.

Security breaches and other disruptions could compromise our information and expose us to liability, which would cause our business and reputation to suffer.

In the ordinary course of our business, we collect and store sensitive data, including intellectual property, our proprietary business information and that of our customers, suppliers and business partners, and personally identifiable information of our employees, on our networks. The secure processing, maintenance and transmission of this information is critical to our operations. Despite our security measures, our IT infrastructure may be vulnerable to attacks by hackers, computer viruses, malicious codes, unauthorized access attempts, and cyber- or phishing-attacks, or breached due to employee error, malfeasance, faulty password management or other disruptions. Third parties may attempt to fraudulently induce employees or other persons into disclosing user names, passwords or other sensitive information, which may in turn be used to access our IT systems, commit identity theft or carry out other unauthorized or illegal activities. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. 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, disruption of our operations and damage to our reputation, which could divert our management's attention from the operation of our business and materially and adversely affect our business, revenues and competitive position. Moreover, we may need to increase our efforts to train our personnel to detect and defend against cyber- or phishing-attacks, which are becoming more sophisticated and frequent, and we may need to implement additional protective measures to reduce the risk of potential security breaches, which could cause us to incur significant additional expenses.

We are subject to certain U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations. We can face serious consequences for violations.

Among other matters, U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations, which are collectively referred to as Trade Laws, prohibit companies and their employees, agents, clinical research organizations, legal counsel, accountants, consultants, contractors, and other partners from authorizing, promising, offering, providing, soliciting, or receiving directly or indirectly, corrupt or improper payments or anything else of value to or from recipients in the public or private sector. Violations of Trade Laws can result in substantial criminal fines and civil penalties, imprisonment, the loss of trade privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. We also expect our non-U.S. activities to increase in time. We plan to engage third parties for collaborations, sales and distribution of sequencing products and we can be held liable for the corrupt or other illegal activities of our personnel, agents, or partners, even if we do not explicitly authorize or have prior knowledge of such activities.

Risks Related to Our Intellectual Property

Failure to secure patent or other intellectual property protection for our products and improvements to our products may reduce our ability to maintain any technological or competitive advantage over our current and potential competitors.

Our ability to protect and enforce our intellectual property rights is uncertain and depends on complex legal and factual questions. Our ability to establish or maintain a technological or competitive advantage over our competitors may be diminished because of these uncertainties. For example:

- we or our licensors might not have been the first to make the inventions covered by each of our pending patent applications or issued patents;
- we or our licensors might not have been the first to file patent applications for these inventions;

- the scope of the patent protection we or our licensors obtain may not be sufficiently broad to prevent others from practicing our technologies, developing competing products, designing around our patented technologies or independently developing similar or alternative technologies;
- our and our licensors' patent applications or patents have been, are and may in the future be, subject to interference, opposition or similar administrative proceedings, which could result in those patent applications failing to issue as patents, those patents being held invalid or the scope of those patents being substantially reduced;
- the current assignee of our intellectual property may elect to forego paying maintenance fees, placing us at risk to lose the licensed IP, or the assignee may neglect to enforce the intellectual property we license from them;
- we or our partners may not adequately protect our trade secrets;
- we may not develop additional proprietary technologies that are patentable; or
- the patents of others may limit our freedom to operate and prevent us from commercializing our technology in accordance with our plans.

The occurrence of any of these events could impair our ability to operate without infringing upon the proprietary rights of others or prevent us from establishing or maintaining a competitive advantage over our competitors.

The intellectual property that is important to our business is owned by other companies or institutions and licensed to us, and changes to the rights we have licensed may adversely impact our business.

We license the intellectual property that is important to our business from Fluidigm Corporation ("Fluidigm") (which obtained this intellectual property portfolio from Helicos) pursuant to a non-exclusive licensing agreement. In addition, we sub-license intellectual property that is important to our business from Arizona Science and Technology Enterprises LLC pursuant to a non-exclusive sublicense. If we fail to comply with the terms of the licenses, the licensors could terminate these licenses. If these third parties who license intellectual property to us fail to maintain the intellectual property that we have licensed, or lose rights to that intellectual property, the rights we have licensed may be reduced or eliminated, which could subject us to claims of intellectual property infringement. Termination of these licenses or reduction or elimination of our licensed rights may result in our having to negotiate new or reinstated licenses with less favorable terms, or could subject us to claims of intellectual property infringement in litigation or other administrative proceedings that could result in damage awards against us and injunctions that could prohibit us from selling our products. In addition, these two license agreements are non-exclusive and the licensors may license the technology to our competitors, which may result is significant competition for us.

In addition, we have limited rights to participate in the prosecution and enforcement of the patents and patent applications that we have licensed. As a result, we cannot be certain that these patents and applications will be prosecuted and enforced in a manner consistent with the best interests of our business. Further, because of the rapid pace of technological change in our industry, we may need to rely on key technologies developed or licensed by third parties, and we may not be able to obtain licenses and technologies from these third parties at all or on reasonable terms. The occurrence of these events may have a material adverse effect on our business, financial condition or results of operations.

A license agreement for intellectual property that is important to our business may be terminated in the event that Daniel Jones, our Chief Executive Officer, fails to continue to work full time for us.

As discussed above, we license certain intellectual property that is important to our business from Fluidigm (which obtained this intellectual property portfolio from Helicos) pursuant to a non-exclusive licensing agreement. The license agreement provides that Fluidigm has a right to terminate the license in the event Daniel Jones, our Chief Executive Officer, fails to continue to work full time for us for any reason, including his resignation, termination, death or otherwise. If we lose our rights to such intellectual property, the rights we have licensed may be reduced or eliminated, which could subject us to claims of intellectual

property infringement, require us to cease selling certain or all of our products, negotiate less favorable agreements or otherwise result in a loss of business. In addition, such language could prevent us from terminating Mr. Jones from his position when it would otherwise be favorable for stockholders or our business in general.

Our licensed intellectual property and future intellectual property will have limited window of enforcement.

In addition, our licensed intellectual property and future intellectual property will have limited window of enforcement. Substantially all of our licensed IP are expected to expire from 2021 – 2028, excluding any extension or adjustment of patent term that may be available. This gives us a limited window of opportunity to market and expand our proprietary technology and services. We may face development of similar technology from our competitors after the expiration of our IP portfolio which will impede our revenue and growth.

We may not be able to protect intellectual property and proprietary rights worldwide.

The majority of our intellectual property is licensed from third parties through non-exclusive license agreements. Although our company has accumulated trade secrets and know-hows to make the technology work effectively and reliably over the last decade, the other entities may attempt to commercialize this technology by gaining access to the intellectual property. As a result, we may encounter additional competition from third parties, and may require significant amount of time and resources to protect intellectual property and proprietary rights.

Filing, prosecuting, and defending patents on our product and other technologies in all countries throughout the world would be cost prohibitive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Intellectual property laws, and patent laws and regulations in particular, have been subject to significant variability either through administrative or legislative changes to such laws or regulations or changes or differences in judicial interpretation, and it is expected that such variability will continue to occur. Additionally, intellectual property laws and regulations differ by country. Variations in the patent laws and regulations or in interpretations of patent laws and regulations in the United States and other countries may diminish the value of our intellectual property and may change the impact of third-party intellectual property on us. Accordingly, we cannot predict the scope of the patents that may be granted to us with certainty, the extent to which we will be able to enforce our patents against third parties or the extent to which third parties may be able to enforce their patents against us.

If the scope of any patent protection we obtain is not sufficiently broad, or if we lose any of our patent protection, our ability to prevent our competitors from commercializing similar or identical sequencing technology and applications would be adversely affected.

The patent position of biotechnology companies generally is highly uncertain, involves complex legal and factual questions, and has been the subject of much litigation in recent years. As a result, the issuance, scope, validity, enforceability, and commercial value of our patent rights are highly uncertain. Our owned or in-licensed pending and future patent applications may not result in patents being issued which protect our tSMS platform, or other technologies or which effectively prevent others from commercializing competitive technologies and applications.

Our ability to stop third parties from making, using, selling, offering to sell, or importing products that infringe our intellectual property will depend in part on our success in obtaining and enforcing patent claims that cover our technology, inventions and improvements. With respect to both licensed and company-owned intellectual property, we cannot be sure that patents will be granted with respect to any of our pending patent applications or with respect to any patent applications filed by us in the future, nor can we be sure that any of our existing patents or any patents that may be granted to us in the future will be commercially useful in protecting our products and the methods used to manufacture those products. Moreover, even our issued patents do not guarantee us the right to practice our technology in relation to the commercialization of our products. The area of patent and other intellectual property rights in biotechnology is an evolving one with many risks and uncertainties, and third parties may have blocking patents that could be used to prevent us from commercializing our sequencing instruments and practicing our proprietary technology. Our issued patent and those that may be issued in the future may be challenged, invalidated, or circumvented, which could limit our ability to stop competitors from marketing related products or limit the length of the term of patent protection that we may have for our technology. In addition, the rights granted under any issued patents may not provide us with protection or competitive advantages against competitors with similar technology. Furthermore, our competitors may independently develop similar technologies. For these reasons, we may have competition for our products. Moreover, because of the extensive time required for development and testing of new sequencing instruments, it is possible that, before any particular product can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any advantage of the patent.

Moreover, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if patent applications we own or license issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents that we own or in-license may be challenged, narrowed, circumvented, or invalidated by third parties. Consequently, we do not know whether our tSMS platform or other technologies will be protectable or remain protected by valid and enforceable patents. Our competitors or other third parties may be able to circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner which could materially adversely affect our business, financial condition, results of operations and prospects.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and patents that we own or license may be challenged in the courts or patent offices in the United States and abroad. We or our licensors may be subject to a third-party reissuance submission of prior art to the USPTO or to foreign patent authorities or become involved in opposition, derivation, revocation, reexamination, post-grant and *inter partes* review, or interference proceedings or other similar proceedings challenging our owned or licensed patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, our owned or in-licensed patent rights, allow third parties to commercialize our tSMS platform technologies or other technologies and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, we, or one of our licensors, may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge our or our licensor’s priority of invention or other features of patentability with respect to our owned or in-licensed patents and patent applications. Such challenges may result in loss of patent rights,

loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our tSMS Platform and other technologies. Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us.

We may in the future co-own patent rights relating to future sequencing instruments, reagents, applications, or our tSMS platform with third parties. Some of our in-licensed patent rights are, and may in the future be, co-owned with third parties. In addition, our licensors may co-own the patent rights we in-license with other third parties with whom we do not have a direct relationship.

We could in the future be subject to legal proceedings with third parties who may claim that our products infringe or misappropriate their intellectual property rights.

Our products are based on complex, rapidly developing technologies. We may not be aware of issued or previously filed patent applications that belong to third parties that mature into issued patents that cover some aspect of our products or their use. In addition, because patent litigation is complex and the outcome inherently uncertain, our belief that our products do not infringe third-party patents of which we are aware or that such third-party patents are invalid and unenforceable may be determined to be incorrect. As a result, third parties have claimed, and may in the future claim, that we infringe their patent rights and have filed, and may in the future file, lawsuits or engage in other proceedings against us to enforce their patent rights. In addition, as we enter new markets, our competitors and other third parties may claim that our products infringe their intellectual property rights as part of a business strategy to impede our successful entry into those markets. Furthermore, parties making claims against us may be able to obtain injunctive or other relief, which effectively could block our ability to develop further, commercialize, or sell products or services, and could result in the award of substantial damages against us. Patent litigation between competitors in our industry is common. In defending ourselves against any of these claims, we could in the future incur, substantial costs, and the attention of our management and technical personnel could be diverted. We may be unable to modify our products so that they do not infringe the intellectual property rights of third parties. In some situations, the results of litigation or settlement of claims may require us to cease allegedly infringing activities which could prevent us from selling some or all of our products. The occurrence of these events may have a material adverse effect on our business, financial condition or results of operations.

In addition, in the course of our business, we may from time to time have access or be alleged to have access to confidential or proprietary information of others, which, though not patented, may be protected as trade secrets. Others could bring claims against us asserting that we improperly used their confidential or proprietary information, or that we misappropriated their technologies and incorporated those technologies into our products. A determination that we illegally used the confidential or proprietary information or misappropriated technologies of others in our products could result in us paying substantial damage awards or being prevented from selling some or all of our products, which could materially and adversely affect our business.

We have not yet registered some of our trademarks in all of our potential markets, and failure to secure those registrations could adversely affect our business.

Some of our trademark applications may not be allowed for registration, and our registered trademarks may not be maintained or enforced. In addition, in the U.S. Patent and Trademark Office and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings.

Risks Related to our Collaborations with Third Parties

Our future collaborations may be important to our business. If we are unable to maintain any of these collaborations, or if these collaborations are not successful, our business could be adversely affected

We have limited capabilities for technology development, sales, marketing or distribution. Accordingly, we may enter into collaborations with academic and commercial entities to provide us with important

technologies and funding for our programs and technology, and we may receive additional technologies and funding under these and other collaborations in the future. Any future collaborations we enter into, may pose a number of risks, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development and commercialization of any platform or may elect not to continue or renew development or commercialization programs or license arrangements based on changes in the collaborators' strategic focus or available funding, or external factors, such as a strategic transaction that may divert resources or create competing priorities;
- collaborators may provide insufficient funding for the research program;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our sequencing instruments and applications if the collaborators believe that the competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- biomarkers discovered in collaboration with us may be viewed by our collaborators as competitive with their own products, which may cause collaborators to cease to devote resources to the commercialization of our product;
- disagreements with collaborators, including disagreements over proprietary rights, contract interpretation or the preferred course of development, might cause delays or terminations of the research, development or commercialization of new platforms, might lead to additional responsibilities for us with respect to technology development, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- collaborators may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability;
- if a collaborator of ours is involved in a business combination, the collaborator might deemphasize or terminate the development or commercialization of any product licensed to it by us; and
- collaborations may be terminated by the collaborator, and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of the applicable sequencing technology. If our potential future collaborations do not result in the successful discovery, development and commercialization of products or if one of our collaborators terminates its agreement with us, we may not receive any future research funding or milestone potential payments under the collaboration. If we do not receive the funding we expect under these agreements, our development of our technology and applications could be delayed and we may need additional resources to develop products and our technology. All of the risks relating to product development, regulatory approval and commercialization described in this prospectus also apply to the activities of our therapeutic collaborators.

Additionally, if one of our potential future collaborators terminates its agreement with us, we may find it more difficult to attract new collaborators and our perception in the business and financial communities could be adversely affected.

Risks Related to this Offering and Ownership of Our Common Stock

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

Prior to this offering, there was no public market for shares of our common stock. The offering price for the shares of our common stock sold in this offering will be determined by negotiation between the underwriters and us. This price may not reflect the market price of our common stock following this offering. As a result, the trading price of our common stock is likely to be volatile, which may prevent you from being able to sell your shares at or above the public offering price. Our stock price could be subject to wide fluctuations in response to a variety of factors, which include:

- actual or anticipated fluctuations in our financial condition and operating results;
- announcements of technological innovations by us or our competitors;
- announcements by our customers, partners or suppliers relating directly or indirectly to our products, services or technologies;
- overall conditions in our industry and market;
- addition or loss of significant customers;
- changes in laws or regulations applicable to our products;
- actual or anticipated changes in our growth rate relative to our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, capital commitments or achievement of significant milestones;
- additions or departures of key personnel;
- competition from existing products or new products that may emerge;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- disputes or other developments related to proprietary rights, including patents, litigation matters or our ability to obtain intellectual property protection for our technologies;
- announcement or expectation of additional financing efforts;
- sales of our common stock by us or our stockholders;
- stock price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- reports, guidance and ratings issued by securities or industry analysts; and
- general economic and market conditions.

If any of the forgoing occurs, it would cause our stock price or trading volume to decline. Stock markets in general and the market for companies in our industry in particular have experienced price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of our common stock. You may not realize any return on your investment in us and may lose some or all of your investment.

We may be subject to securities litigation, which is expensive and could divert our management's attention.

The market price of our securities may be volatile, and in the past companies that have experienced volatility in the market price of their securities have been subject to securities class action litigation. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management's attention from other business concerns, which could seriously harm our business.

We have broad discretion in the use of the net proceeds from this offering and may invest or spend the proceeds in ways with which you disagree or that may not yield a return.

While we set forth our anticipated use for the net proceeds from this offering in the section titled "Use of Proceeds," our management will have broad discretion on how to use and spend any proceeds that we receive from this offering and may use the proceeds in ways that differ from the anticipated uses set forth in this prospectus. Investors in this offering will need to rely upon the judgment of our management with respect to the use of proceeds with only limited information concerning management's specific intentions. It is possible that we may decide in the future not to use the proceeds of this offering in the manner described in this offering. Our management may spend a portion or all of the net proceeds from this offering in ways that holders of our common stock may not desire or that may not yield a significant return or any return at all. Investors will receive no notice or vote regarding any such change and may not agree with our decision on how to use such proceeds. If we fail to utilize the proceeds we receive from this offering effectively, our business and financial condition could be harmed and we may need to seek additional financing sooner than expected. Pending their use, we may also invest the net proceeds from this offering in a manner that does not produce income or that loses value.

There is no existing market for our common stock and we do not know if one will develop to provide you with adequate liquidity.

Prior to this offering, there has not been a public market for our common stock. Although we will apply to have our common stock listed on the Nasdaq, an active trading market for our common stock may never develop or be sustained following this offering. You may not be able to sell your shares quickly or at the market price if trading in our common stock is not active. The initial public offering price for the shares will be determined by negotiations between us and the underwriters and may not be indicative of prices that will prevail in the trading market. You may not be able to sell your shares of our common stock at or above the price you paid in the offering. As a result, you could lose all or part of your investment. Further, an inactive market may also impair our ability to raise capital by selling shares of our common stock and may impair our ability to enter into strategic partnerships or acquire companies or products by using our shares of common stock as consideration.

Concentration of ownership by our principal stockholders may result in control by such stockholders of the composition of our board of directors.

Our existing significant stockholders, executive officers, directors and their affiliates beneficially own a significant number of our outstanding shares of common stock. As a result, these stockholders will be able to exercise a significant level of control over all matters requiring stockholder approval, including the election of directors. This control could have the effect of delaying or preventing a change of control of our company or changes in management and will make the approval of certain transactions difficult or impossible without the support of these stockholders.

Our failure to meet the continued listing requirements of Nasdaq could result in de-listing of our common stock.

If, after listing, we fail to satisfy the continued listing requirements of Nasdaq, such as the corporate governance requirements or the minimum closing bid price requirement, Nasdaq may take steps to de-list our common stock. Such a de-listing would likely have a negative effect on the price of our common stock and would impair your ability to sell or purchase our common stock when you wish to do so. In the event of a de-listing, we would take actions to restore our compliance with Nasdaq Marketplace Rules, but our common stock may not be listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the Nasdaq minimum bid price requirement or prevent future non-compliance with the Nasdaq Marketplace Rules.

If our shares become subject to the penny stock rules, it would become more difficult to trade our shares.

The SEC has adopted rules that regulate broker-dealer practices in connection with transactions in penny stocks. Penny stocks are generally equity securities with a price of less than $5.00, other than securities registered on certain national securities exchanges or authorized for quotation on certain

automated quotation systems, provided that current price and volume information with respect to transactions in such securities is provided by the exchange or system. If we do not obtain or retain a listing on Nasdaq and if the price of our common stock is less than $5.00, our common stock will be deemed a penny stock. The penny stock rules require a broker-dealer, before a transaction in a penny stock not otherwise exempt from those rules, to deliver a standardized risk disclosure document containing specified information. In addition, the penny stock rules require that before effecting any transaction in a penny stock not otherwise exempt from those rules, a broker-dealer must make a special written determination that the penny stock is a suitable investment for the purchaser and receive (i) the purchaser's written acknowledgment of the receipt of a risk disclosure statement; (ii) a written agreement to transactions involving penny stocks; and (iii) a signed and dated copy of a written suitability statement. These disclosure requirements may have the effect of reducing the trading activity in the secondary market for our common stock, and therefore stockholders may have difficulty selling their shares.

Future sales of shares by existing stockholders could cause our stock price to decline.

If our existing stockholders sell, or indicate an intent to sell, substantial amounts of our common stock in the public market after the 180-day contractual lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline significantly and could decline below the initial public offering price. After giving effect to this offering and based on 8,403,775 shares outstanding immediately prior to the offering, we will have outstanding 9,753,775 shares of common stock, assuming no exercise of outstanding options and warrants. Of these shares, 1,350,000 shares of common stock, plus any shares sold pursuant to the underwriters' option to purchase additional shares, will be immediately freely tradable, without restriction, in the public market. If our existing stockholders sell substantial amounts of our common stock in the public market, or if the public perceives that such sales could occur, this could have an adverse impact on the market price of our common stock, even if there is no relationship between such sales and the performance of our business. We also intend to register all shares of common stock that we may issue under our equity compensation plans. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the "Underwriting" section of this prospectus.

After the lock-up agreements pertaining to this offering expire and based on shares outstanding after this offering, additional shares will be eligible for sale in the public market. In addition, upon issuance, the 916,208 shares subject to outstanding options under our 2014 Plan and the shares reserved for future issuance under our 2014 Plan will become eligible for sale in the public market in the future, subject to certain legal and contractual limitations. If our existing stockholders sell substantial amounts of our common stock in the public market, or if the public perceives that such sales could occur, this could have an adverse impact on the market price of our common stock, even if there is no relationship between such sales and the performance of our business.

If you purchase shares of common stock in this offering, you will suffer immediate dilution of your investment.

The public offering price of our common stock will be substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our net tangible book value per share after this offering. Based on an assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, you will experience immediate dilution of $5.19 per share, representing the difference between our pro forma net tangible book value per share, after giving effect to this offering, and the assumed initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately 51.4% of the aggregate price paid by all purchasers of our stock but will own only approximately 14% of our common stock outstanding after this offering.

We are an "emerging growth company" and the reduced disclosure requirements applicable to emerging growth companies could make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act. We may remain an emerging growth company until as late as December 2023 (the fiscal year-end following the fifth anniversary of the completion of our initial public offering), though we may cease to be an emerging growth company earlier

under certain circumstances, including (1) if the market value of our common stock that is held by nonaffiliates exceeds $700 million as of any June 30, in which case we would cease to be an emerging growth company as of the following December 31, or (2) if our gross revenue exceeds $1.07 billion in any fiscal year. Emerging growth companies may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. Investors could find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, Section 102 of the JOBS Act also provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended, or the Securities Act, for complying with new or revised accounting standards. An emerging growth company can therefore delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

We will incur significant costs as a result of operating as a public company and our management expects to devote substantial time to public company compliance programs.

As a public company, we will incur significant legal, accounting and other expenses due to our compliance with regulations and disclosure obligations applicable to us, including compliance with the Sarbanes-Oxley Act, as well as rules implemented by the SEC and Nasdaq. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact, in ways we cannot currently anticipate, the manner in which we operate our business. Our management and other personnel will devote a substantial amount of time to these compliance programs and monitoring of public company reporting obligations and as a result of the new corporate governance and executive compensation related rules, regulations and guidelines prompted by the Dodd-Frank Act and further regulations and disclosure obligations expected in the future, we will likely need to devote additional time and costs to comply with such compliance programs and rules. These rules and regulations will cause us to incur significant legal and financial compliance costs and will make some activities more time-consuming and costlier.

To comply with the requirements of being a public company, we may need to undertake various actions, including implementing new internal controls and procedures and hiring new accounting or internal audit staff. The Sarbanes-Oxley Act requires that we maintain effective disclosure controls and procedures and internal control over financial reporting. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that information required to be disclosed in reports under the Securities Exchange Act of 1934, as amended, or the Exchange Act, is accumulated and communicated to our principal executive and financial officers. Our current controls and any new controls that we develop may become inadequate and weaknesses in our internal control over financial reporting may be discovered in the future. Any failure to develop or maintain effective controls when we become subject to this requirement could negatively impact the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we may be required to include in our periodic reports we will file with the SEC under Section 404 of the Sarbanes-Oxley Act, harm our operating results, cause us to fail to meet our reporting obligations or result in a restatement of our prior period financial statements. In the event that we are not able to demonstrate compliance with the Sarbanes-Oxley Act, that our internal

control over financial reporting is perceived as inadequate or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results and the price of our common stock could decline. In addition, if we are unable to continue to meet these requirements, we may not be able to remain listed on Nasdaq.

Our management team has limited experience managing a public company.

Most members of our management team have limited experience managing a publicly-traded company, interacting with public company investors and complying with the increasingly complex laws pertaining to public companies. Our management team may not successfully or efficiently manage our transition to being a public company subject to significant regulatory oversight and reporting obligations under the federal securities laws and the continuous scrutiny of securities analysts and investors. These new obligations and constituents will require significant attention from our senior management and could divert their attention away from the day-to-day management of our business, which could adversely affect our business, financial condition and operating results.

Because we have elected to use the extended transition period for complying with new or revised accounting standards for an emerging growth company our financial statements may not be comparable to companies that comply with public company effective dates.

We have elected to use the extended transition period for complying with new or revised accounting standards under Section 102(b)(1) of the JOBS Act. This election allows us to delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. As a result of this election, our financial statements may not be comparable to companies that comply with public company effective dates, and thus investors may have difficulty evaluating or comparing our business, performance or prospects in comparison to other public companies, which may have a negative impact on the value and liquidity of our common stock.

If securities or industry analysts do not publish research, or publish inaccurate or unfavorable research, about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend, in part, on the research and reports that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on us. If no securities or industry analysts commence coverage of us, the price for our common stock could be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business, our stock price could decline. In addition, if our operating results fail to meet the forecast of analysts, our stock price could decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause our stock price and trading volume to decline.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our certificate of incorporation and bylaws, as amended and restated, may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and bylaws include provisions that:

- provide for a staggered board of directors;
- authorize our board of directors to issue, without further action by the stockholders, up to 20,000,000 shares of undesignated preferred stock and up to approximately 80,000,000 shares of authorized but unissued shares of common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the Chairman of the Board, the Chief Executive Officer or the President;

- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;
- provide that our directors may be removed only for cause; and
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us.

Our Amended and Restated Certificate of Incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for certain litigation that may be initiated by our stockholders.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a claim of breach of a fiduciary duty or other wrongdoing by any of our directors, officers, employees or agents to us or our stockholders; (3) any action asserting a claim against us arising pursuant to any provision of the DGCL or our amended and restated certificate of incorporation or amended and restated bylaws; (4) any action to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or amended and restated bylaws; or (5) any action asserting a claim governed by the internal affairs doctrine. The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, employees or agents, which may discourage such lawsuits against us and our directors, officers, employees and agents. Stockholders who do bring a claim in the Court of Chancery could face additional litigation costs in pursuing any such claim, particularly if they do not reside in or near the State of Delaware. The Court of Chancery may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments or results may be more favorable to us than to our stockholders. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition. By agreeing to the exclusive forum provisions, investors will not be deemed to have waived our compliance obligations with any federal securities laws or the rules and regulations thereunder.

We do not anticipate paying any cash dividends on our common stock in the foreseeable future and, as such, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

We have never declared or paid cash dividends on our common stock. We do not anticipate paying any cash dividends on our common stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. In addition, and any future loan arrangements we enter into may contain, terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that involve substantial risks and uncertainties. The forward-looking statements are contained principally in the sections titled "Prospectus Summary," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," but are also contained elsewhere in this prospectus. In some cases, you can identify forward-looking statements by the words "may," "might," "will," "could," "would," "should," "expect," "intend," "plan," "objective," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue" and "ongoing," or the negative of these terms, or other comparable terminology intended to identify statements about the future, although not all forward-looking statements contain these words. These statements relate to future events or our future financial performance or condition and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. These forward-looking statements include, but are not limited to, statements about:

- the success, cost and timing of our product development activities, including statements regarding the timing of initiation and completion of our research and development programs;
- developments regarding next generation sequencing technologies;
- our expectations regarding the market size and growth potential for our business;
- the implementation of our strategic plans, including strategy for our business and related financing;
- our ability to maintain and establish future collaborations and strategic relationships;
- the rate and degree of market acceptance of our products;
- our ability to generate sustained revenue or achieve profitability;
- the potential for our identified research priorities to advance our technology;
- the pricing and expected gross margin for our products;
- our commercialization, marketing and manufacturing capability and strategy;
- our expectations related to the use of proceeds from this offering;
- our research and development plans including, among other things, statements relating to future uses, quality or performance of, or benefits of using, products or technologies;
- updates or improvements of our products;
- intentions regarding seeking regulatory approval for our products;
- our competitive position;
- our estimates of our expenses, ongoing losses, future revenue, capital requirements and our needs for, or ability to obtain, additional financing as necessary; and
- our ability to maintain our intellectual property position for our technology.

You should read this prospectus, including the section titled "Risk Factors," and the documents that we reference elsewhere in this prospectus and have filed as exhibits to the registration statement, of which this prospectus is a part, completely and with the understanding that our actual results may differ materially from what we expect as expressed or implied by our forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

These forward-looking statements represent our estimates and assumptions only as of the date of this prospectus regardless of the time of delivery of this prospectus or any sale of our common stock. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this prospectus. All subsequent forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to herein.

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately $6.5 million from the sale of the shares of common stock offered in this offering, or approximately $7.6 million if the underwriters exercise their option to purchase additional shares in full, based on an assumed initial public offering price of $5.90 per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each $1.00 increase (decrease) in the assumed initial public offering price of $5.90 per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $1.2 million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 100,000 in the number of shares we are offering would increase (decrease) the net proceeds to us from this offering, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, by approximately $536,900, assuming the initial public offering price stays the same.

We currently expect to use the net proceeds from this offering as follows: (1) approximately $1.0 million to expand our commercial operations to grow sequencing services; (2) approximately $500,000 to build additional sequencing instruments to support sequencing services expansion; (3) approximately $500,000 to build consumables and lab resources to support sequencing services expansion; (4) approximately $1.0 million to improve and update our tSMS technology and instruments to develop additional applications; (5) approximately $1.0 million to support and expand our marketing and business development efforts in the United States and internationally; (6) the repayment of the promissory notes totaling $270,000 plus outstanding accrued interest; and (7) the balance for working capital and other general corporate purposes.

Although we currently anticipate that we will use the net proceeds from this offering as described above, there may be circumstances where a reallocation of funds is necessary. If we are required to borrow funds for operations prior to closing this offering, then a portion of net proceeds will be used to repay such borrowed funds. Due to the uncertainties inherent in the technology development process, it is difficult to estimate with certainty the exact amounts of the net proceeds from this offering that may be used for the above purposes. The amounts and timing of our actual expenditures will depend upon numerous factors, including our sales and marketing and commercialization efforts, demand for our technology, our operating costs and the other factors described under “Risk factors” in this prospectus. Accordingly, our management will have flexibility in applying the net proceeds from this offering. An investor will not have the opportunity to evaluate the economic, financial or other information on which we base our decisions on how to use the proceeds.

DIVIDEND POLICY

We do not anticipate paying cash dividends on our common stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to support our operations and finance the growth and development of our business. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects, the requirements of current or then-existing debt instruments and other factors our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of December 31, 2018:

- on an actual basis;
- on a pro forma basis to reflect (1) the conversion of all outstanding shares of our preferred stock into 3,130,622 shares of our common stock, and the conversion of our outstanding notes and promissory note into an aggregate of 408,291 shares of our common stock immediately prior to the closing of this offering, (2) the filing and effectiveness of our amended and restated certificate of incorporation, which will occur immediately prior to the closing of this offering, as if such conversion had occurred on December 31, 2018; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of 1,350,000 shares of common stock in this offering at an assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only and our capitalization following the completion of this offering is subject to adjustment based on the initial public offering price of our common stock and other terms of this offering determined at pricing. You should read the following table in conjunction with "Use of Proceeds," "Selected Financial Data," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Description of Capital Stock" and other financial information contained in this prospectus, including the financial statements and related notes appearing elsewhere in this prospectus.

	As of December 31, 2018		
	Actual	Pro Forma	Pro Forma As Adjusted[1]
Cash and cash equivalents	$ 64,694	$ 64,694	$ 6,613,535
Total liabilities	$ 1,566,690	$ 845,980	$ 845,980
Preferred stock, $0.00001 par value; 8,779,762 and 4,017,857 shares authorized at December 31, 2018 and December 31, 2017, respectively; 5,791,665 and 3,854,165 shares issued and outstanding at December 31, 2018 and December 31, 2017, respectively	$ 58	—	—
Common stock, $0.00001 par value; 20,299,261 shares authorized at December 31, 2018 and December 31, 2017; 4,864,862 shares issued and outstanding at December 31, 2018 and December 31, 2017	$ 49	$ 84	$ 96
Additional paid-in capital	6,804,871	6,804,894	13,353,735
Accumulated deficit	(7,191,391)	(7,191,391)	(7,191,391)
Total stockholders' equity (deficit)	$ (386,413)	$ 334,297	$ 6,883,138

(1) A $1.00 increase or decrease in the assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, as applicable, each of cash, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $1.2 million, assuming the number of shares offered by us, as stated on the cover page of this prospectus, remains unchanged and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of one hundred thousand in the number of shares we are offering would increase or decrease, as applicable, each of cash, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by

$1.2 million, assuming the assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The number of shares of our common stock to be outstanding after this offering is based on 4,864,862 shares of common stock outstanding as of April 19, 2019, the conversion of all outstanding shares of our preferred stock consented to by a majority of holders of our Series A preferred stock, into an aggregate of 3,130,622 shares of our common stock, and the conversion of our outstanding convertible notes and promissory note consented to by the holder of such notes, into an aggregate of 408,291 shares of our common stock, which conversions will occur immediately prior to the closing of this offering and excludes as of such date:

- 596,396 shares of our common stock issuable upon the exercise of warrants, at a weighted average exercise price of $2.32 per share;
- 67,500 shares of our common stock that may be issued upon exercise of the Underwriters' Warrants at an exercise price of $7.38 , which represents 5% of the shares of common stock being offered hereby and 125% of an assumed public offering price of $5.90 , which is the midpoint of the initial public offering price range reflected on the cover of this prospectus;
- 916,208 shares of our common stock issuable upon the exercise of outstanding stock options under our 2014 Equity Incentive Plan, or the 2014 Plan; and
- 164,873 shares of our common stock reserved for future issuance under the 2014 Plan.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Our historical net tangible book value (deficit) is the amount of our total assets less our liabilities. Our historical net tangible book value (deficit) per share is our historical net tangible book value (deficit) divided by the number of shares of common stock outstanding as of December 31, 2018. Our historical net tangible book value (deficit) as of December 31, 2018, was approximately ($386,413), or ($0.08) per share of common stock. Our pro forma net tangible book value (deficit) as of December 31, 2018 was $334,297 or $0.04 per share of common stock, after giving effect to the conversion of all outstanding shares of our preferred stock into an aggregate of 3,130,622 shares of our common stock, and the conversion of our outstanding convertible notes and promissory notes (excluding the promissory notes totaling $270,000) into an aggregate of 408,291 shares of our common stock immediately prior to the closing of this offering.

Pro forma as adjusted net tangible book value (deficit) is our pro forma net tangible book value, after giving further effect to the sale of 1,350,000 shares of our common stock in this offering at an assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. This amount represents an immediate increase in pro forma net tangible book value (deficit) of $0.73 per share to our existing stockholders, and an immediate dilution of $5.19 per share to new investors participating in this offering.

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

Assumed initial public offering price per share		$ 5.90
Historical net tangible book value (deficit) per share as of December 31, 2018	$(0.08)	
Increase in pro forma net tangible book value (deficit) attributable to conversion of our preferred stock and notes	0.18	
Pro forma net tangible book value (deficit) per share as of December 31, 2018, before giving effect to this offering	0.10	
Increase in pro forma net tangible book value (deficit) per share attributable to new investors participating in this offering	0.73	
Pro forma as adjusted net tangible book value (deficit) per share after this offering		0.83
Dilution in pro forma net tangible book value (deficit) per share to new investors participating in this offering		5.07

A $1.00 increase or decrease in the assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, as applicable, the pro forma as adjusted net tangible book value (deficit) per share after this offering by approximately $0.13 per share and decrease or increase, as appropriate, the dilution in pro forma net tangible book value (deficit) per share to investors participating in this offering by approximately $0.87 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Similarly, a one hundred thousand share increase or decrease in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease, as appropriate, the pro forma as adjusted net tangible book value (deficit) after this offering by approximately $536,900 and decrease or increase, as appropriate, the dilution in pro forma net tangible book value (deficit) per share to investors participating in this offering by approximately $0.05, assuming the assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, remains the same, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma information discussed above is illustrative only and will change based on the actual initial public offering price, number of shares and other terms of this offering determined at pricing.

If the underwriters exercise in full their option to purchase 202,500 additional shares of our common stock in this offering, the pro forma as adjusted net tangible book value will increase to $0.93 per share, representing an immediate increase in pro forma net tangible book value to existing stockholders of $0.09 per share and a decrease in immediate dilution of $0.09 per share to new investors participating in this offering.

The following table sets forth, as of the date of this prospectus, on the pro forma as adjusted basis described above, the differences between our existing stockholders and the purchasers of shares of common stock in this offering with respect to the number of shares of common stock purchased from us, the total consideration paid to us and the weighted average price paid per share paid to us, based on an assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting underwriting discounts and commissions and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Weighted Average Price per Share
	Number	Percent	Amount	Percent	
Existing stockholders	8,403,775	86.16%	$ 7,525,688	48.6%	$0.90
New investors	1,350,000	13.84%	$ 7,965,000	51.4%	$5.90
Total	9,753,775	100%	$15,490,688	100%	$1.59

If the underwriters exercise in full their option to purchase additional shares of our common stock in this offering, the number of shares held by existing stockholders will be reduced to 84.40% of the total number of shares of common stock that will be outstanding upon completion of this offering, and the number of shares of common stock held by new investors participating in this offering will be further increased to 15.60% of the total number of shares of common stock that will be outstanding upon completion of the offering, before any sales by any Selling Stockholders of any of the shares of common stock registered concurrently with this offering.

To the extent that any outstanding options or warrants are exercised, new options are issued under our 2014 Plan or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering. If all outstanding options and warrants as of April 19, 2019, other than the option held by the underwriters, were exercised, then our existing stockholders, including holders of such options and warrants, would own 88.02% and our new investors would own 11.98% of the total number of shares of our common stock outstanding upon the completion of this offering. In such event, the total consideration paid by our existing stockholders, including the holders of such options and warrants, would be approximately $9,166,729, or 53.5%, the total consideration paid by our new investors would be $7,965,000, or 46.5% of the total consideration for our common stock outstanding upon the completion of this offering, and, the average price per share paid by our existing stockholders would be $0.92 and the average price per share paid by our new investors would be $5.90.

A $1.00 increase or decrease in the assumed initial public offering price of $5.90 per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, as appropriate, the total consideration paid by new investors by $1.2 million, assuming the number of shares we are offering, as set forth on the cover page of this prospectus, remains the same, 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. Similarly, each increase or decrease of one hundred thousand shares in the number of shares offered by us would increase or decrease, as appropriate, the total consideration paid by new investors by $536,900, assuming that the assumed initial price to the public remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We may choose to raise additional capital through the sale of equity or equity-linked securities due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that any options are issued under our equity incentive plan or we issue additional shares of common stock or equity-linked securities in the future, there will be further dilution to investors purchasing in this offering.

The number of shares of our common stock to be outstanding after this offering is based on 4,864,862 shares of common stock outstanding as of April 19, 2019 and 3,130,622 shares of our common stock issuable upon the conversion of our preferred stock and the conversion of our outstanding convertible notes and promissory note into an aggregate of 408,291 shares of our common stock and excludes as of such date:

- 596,396 shares of our common stock issuable upon the exercise of warrants, at a weighted average exercise price of $2.32 per share;
- 67,500 shares of our common stock that may be issued upon exercise of the Underwriters' Warrants at an exercise price of $7.38, which represents 5% of the shares of common stock being offered hereby and 125% of an assumed public offering price of $5.90 , which is the midpoint of the initial public offering price range reflected on the cover of this prospectus;
- 916,208 shares of our common stock issuable upon the exercise of outstanding stock options under our 2014 Plan; and
- 164,873 shares of our common stock reserved for future issuance under the 2014 Plan.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion of our financial condition and results of operations in conjunction with "Selected Financial Data" and our financial statements and related notes included elsewhere in this prospectus. This discussion and analysis and other parts of this prospectus contain forward-looking statements based upon current beliefs, plans and expectations that involve risks, uncertainties and assumptions. Our actual results and the timing of selected events could differ materially from those anticipated in these forward-looking statements as a result of several factors, including those set forth under "Risk Factors" and elsewhere in this prospectus. You should carefully read the "Risk Factors" section of this prospectus to gain an understanding of the important factors that could cause actual results to differ materially from our forward-looking statements. Please also see the section entitled "Cautionary Note Regarding Forward-Looking Statements and Industry and Market Data" in this prospectus.

Overview

We are a life sciences instrumentation and services company focused on providing our tSMS™ technology to the scientific and medical community in order to accelerate the understanding of the molecular mechanisms of disease and fundamental biological processes. We have developed and offer a unique, proprietary sequencing technology platform in the multi-billion-dollar NGS market, ideally suited for emerging applications in the research and development of precision medicine and epigenetic investigations. Our technology advantage provides a simple method of quantifying DNA and RNA molecules at single molecule resolution, eliminating bias from PCR amplification or other preparation steps required by other technologies. Data produced by our tSMS platform generate accurate, reproducible molecular profiles, often revealing previously unknown characteristics and providing new insights into the biology being researched. Leveraging our expertise with the tSMS technology platform, we aim to provide the scientific and medical communities with tools for development of diagnostic applications that could lead to improved outcomes for patients with chronic and fatal diseases.

Our strategy is to generate revenue through product sales, sequencing services and research grants in applying our single molecule sequencing platform to develop a wide variety of RNA-based applications. Our customers are consumers of our NGS products and services as academic and government institutes, hospitals and medical centers, pharmaceutical and biotechnology companies, non-profit research organizations and agricultural genomics organizations. Our technology has implications in RNA-based discovery of biomarkers for the early detection of diseases, specifically cardiovascular artery disease and epithelial cancer. As we unlock the inherent advantages of single molecule sequencing, we aim to integrate our tSMS platform in the development of novel applications in the rapidly emerging precision medicine market.

Since our incorporation in 2014, we have devoted substantially most of our efforts to business planning, research and development. The Company incurred net losses of $2,888,017 and $1,706,934 and had negative cash flow from operating activities of $1,781,864 and $1,125,597 for the year ended December 31, 2018 and 2017, respectively, and had an accumulated deficit of $7,191,391 as of December 31, 2018. These condition among others raise substantial doubts about the Company's ability to continue as a going concern. The Company's ability to continue to operate is dependent upon raising additional funds to finance its activities.

Recent Developments

During 2019, the Company has entered into a series of convertible promissory notes with St. Laurent Investments, amounting to $545,000. These convertible promissory notes accrue interest at 10% per annum and are convertible at the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing. In connection with these convertible promissory notes, the Company is obligated to issue warrants to purchase the number of common shares equal to 6% of the total amount of shares related to the conversion of these convertible promissory notes at the exercise price equal to the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing.

Going Concern and Management's Plan

Our consolidated financial statements are prepared based on the assumption that we will continue as a going concern, which contemplates the realization of assets and liquidation of liabilities in the normal course of business. We face certain risks and uncertainties that are present in many emerging growth companies regarding product development and commercialization, limited working capital, recurring losses and negative cash flow from operations, future profitability, ability to obtain future capital, protection of patents, technologies and property rights, competition, rapid technological change, navigating the domestic and major foreign markets' regulatory environment, recruiting and retaining key personnel, dependence on licensing agreements and lack of sales and marketing activities. These risks and other factors raises substantial doubt about our ability to continue as a going concern as of the date of the filing of this Registration Statement.

We have relied exclusively on private placements with a small group of accredited investors, primarily by William St. Laurent, our founder, to finance our business and operations. We do not have any credit facilities as a source of future funds. If we are not successful in securing additional outside financing, there are no assurances that Mr. St. Laurent will continue to fund us to an adequate level of financing needed for the long-term development and commercialization of our products.

We are looking at ways to add an additional revenue stream to offset some of our expenses. We are planning on raising additional funds in 2020 following the completion of this initial public offering. In addition, we are seeking alternative options to add additional cash. However, no assurance can be given that we will be successful in securing adequate funds that may be required. If we are unable to raise additional capital when required or on acceptable terms, we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our products, restrict our operations or obtain funds by entering into agreements on unattractive terms, which would likely have a material adverse effect on our business, stock price, and our relationships with third parties with whom we have business relationships, at least until additional funding is obtained.

Doubts exist about our ability to continue as a going concern as of the date of the filing of this Registration Statement. The accompanying consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of recorded assets, or the amounts and classification of liabilities that might be different should we be unable to continue as a going concern based on the outcome of these uncertainties described above. Our management and Board of Directors believe that the net proceeds from this offering and our existing financial resources are adequate to satisfy our expected liquidity requirements for several years.

Results of Operations

Overview

Since our incorporation in 2014, we have devoted substantially most of our efforts to business planning, research and development. The Company incurred net losses of $2,888,017 and $1,706,934 and had negative cash flow from operating activities of $1,781,864 and $1,125,597 for the year ended December 31, 2018 and 2017, respectively, and had an accumulated deficit of $7,191,391 as of December 31, 2018. These condition among others raise substantial doubts about the Company's ability to continue as a going concern. The Company's ability to continue to operate is dependent upon raising additional funds to finance its activities.

Results of Operations

Comparison of the Years Ended December 31, 2018 and 2017

The following table represents selected items in our consolidated statements of operations for the years ended December 31, 2018 and 2017:

	Years Ended December 31,		
	2018	2017	Change
Revenue			
Sales	$ 756,303	$ 1,138,052	$ (381,749)
Other revenue	22,765	200,700	(177,935)
Total revenue	779,068	1,338,752	(559,684)
Cost of sales	674,281	1,084,518	(410,237)
Gross profit	**104,787**	**254,234**	**(149,447)**
Operating expenses			
Research and development	1,039,260	974,531	64,729
General and administrative	1,466,814	806,897	659,917
Total operating expenses	2,506,074	1,781,428	724,646
Operating loss	(2,401,287)	(1,527,194)	874,093
Other income and expenses			
Gain on settlement of liabilities	182,439	—	182,439
Debt conversion expense	(438,873)	—	438,878
Interest and other expenses	(230,296)	(179,740)	50,556
Total other expenses, net	(486,730)	(179,740)	306,990
Income/(Loss) from operations before Taxes	(2,888,017)	(1,706,934)	1,181,083
Provision for income taxes	—	—	
Net Loss	$(2,888,017)	$(1,706,934)	1,181,083

Comparison of Years Ended December 31, 2018 and 2017.

Revenues

Revenues earned during the year ended December 31, 2018 were $779,068 as compared to revenues of $1,338,752 during the year ended December 31, 2017. During 2018, revenues were generated through product sales of $186,643, sequencing services of $549,725, and consumables of $19,935 and grant income of $22,765 as compared to product sales of $639,790, sequencing services of $398,011, and consumables of $100,251 and grant income of $200,700 during the year ended December 31, 2017. The decrease was primarily a result of the company focusing on continued growth of sequencing services revenue, which increased 38% over the prior year's twelve months, and not manufacturing additional tSMS instruments that generated approximately one half of the 2017 revenue.

Gross Profit

Gross profits earned during the year ended December 31, 2018 were $104,787 as compared to gross profits of $254,234 during the year ended December 31, 2017. During 2018, gross profits were generated primarily through services revenues, which increased 54%, as compared to primarily greater product sales and grants for the year ended December 31, 2017. The decrease was primarily a result of lower cost of sales for increased services volume and a decrease in product revenues with higher gross margins.

Research and Development Expenses

Research and Development expenses increased by $64,729, or 7%, from $974,531 for the year ended December 31, 2017 to $1,039,260 for the year ended December 31, 2018. The Company continued its commitment to R&D with investments at the same level as the previous year.

General and Administrative Expenses

General and administrative expenses increased by $659,917, or 82%, from $806,897 for the year ended December 31, 2017 to $1,466,814 for the year ended December 31, 2018. The increase is primarily due to outside professional services to prepare for our public offering and future operations as a public entity.

Interest and Other Expense

We recognized interest and other expenses of $230,296 and $179,740 during the year ended December 31, 2018 and 2017 respectively, representing an increase of $50,556, or 28%. The increase was in interest expense due to an increase in our outstanding convertible notes that grew $1,795,000 during the year to a net total of $990,710 after the exchange to preferred stock on September 30. We recognized a one-time extraordinary debt conversion expense of $438,873 during the year ended December 31, 2018, versus no similar expense in the year ended December 31, 2017.

Net Loss

Our net loss for the year ended December 31, 2018 increased by $1,181,137, or 69%, to $2,888,071 as compared to $1,706,934 for the year ended December 31, 2017. The increase was primarily attributable to increased expenses for outside professional services necessary to prepare for our public offering and future operations as a public entity as well as a one time debt conversion expense of $438,873 associated with a significant warrant issuance.

Liquidity and Capital Resources

We have incurred losses since our incorporation in 2014 and negative cash flows from operating activities for the year ended December 31, 2018, 2017 and 2016. As of December 31, 2018, we had an accumulated deficit of $7.2 million. Since inception, we have funded our operations primarily through private placements of equity and convertible debt securities as well as from modest sales coming from operations. As of December 31, 2018, we had $64,694 of cash.

Through December 31, 2018, we issued 2,666,665 shares of Series A-2 preferred stock, at a purchase price of $1.68 per share, to certain accredited investors, of which 729,165 shares were issued in 2016. The gross proceeds from the Series A-2 preferred stock was $4,479,998 and we incurred offering expenses of $18,674.

From January 9, 2018 to December 27, 2018 we received proceeds aggregating $1,795,000 pursuant to the issuance of convertible promissory notes (the “Notes”), and five-year warrants for the purchase of 34,633 shares of our common stock (the “Warrants”). The Notes bear interest at 10% per annum. On September 30, 2018, the Notes along with all outstanding prior senior convertible notes from the same lender totaling $3,135,000 were exchanged for (i) 1,866,071 shares of Series A-2 Preferred Stock; (ii) a warrant for 486,486 shares of common stock exercisable at $2.16 per share; (iii) a warrant for 60,506 shares of common stock exercisable at $2.16 per share and (iv) a 1-year promissory note for $360,710 bearing 10% interest per annum and convertible at the lower of $3.10 per share of a 20% discount to the share price paid by the purchasers of equity securities in the Company’s next equity financing.

On March 15, 2018, the Company negotiated a final settlement payment for the promissory notes issued to Helicos Biosciences Company (the “Helicos Notes”) in the amount of $105,000. The amount of the final settlement for the Helicos Notes was a result of a negotiation following a disagreement among the parties that resulted in the Company withholding payment and the holder of the note purporting to demand payment and accelerate amounts due thereunder. The parties settled all disputes with respect to the Helicos Notes and entered into a settlement agreement fixing the settlement amount at $105,000 with each party releasing the other party for all liability in connection with such actions preceding the settlement. The principal and interest outstanding at December 31, 2017 on the Helicos Notes was $287,439. The Helicos Note was cancelled and forgiven upon acceptance of payment of $105,000.

We do not have any credit facilities as a source of future funds, and there can be no assurance that we will be able to raise sufficient additional capital on acceptable terms, or at all. As a result, substantial doubt existed about our ability to continue as a going concern as of the date of the filing of this registration

statement. The accompanying consolidated financial statements do not include any adjustment to reflect the possible future effects on the recoverability and classification of recorded assets, or the amounts and classification of liabilities that might be different should we be unable to continue as a going concern.

Based upon our working capital as of December 31, 2018, we require additional equity and or debt financing in order to meet our obligations as they become due after June 30, 2019. We will require significant amounts of additional capital to continue to fund our operations and commence and complete our projected increased research and development activities. We currently have limited resources to access to fund our negative cash flows from operations and if we are not able to obtain additional cash resources, we will have to shrink considerably our operations. We will continue seeking additional financing sources to meet our working capital requirements, make continued investment in research and development and make capital expenditures needed for us to maintain and expand our business. We may not be able to obtain additional financing on terms favorable to us, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us when we require it, or if we expend capital on projects that are not successful, our ability to continue to support our business growth and to respond to business challenges could be significantly limited, or we may have to cease our operations. These factors, among others, raise substantial doubt about our ability to continue as a going concern. If we raise additional funds through further issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock, including shares of common stock sold in this offering.

Cash Flows

Year ended December 31, 2018 and 2017

The following table sets forth the primary sources and uses of cash and cash equivalents for each of the periods presented.

	For the Year Ended December 31,	
	2018	**2017**
Cash proceeds provided by (used in):		
Operating activities	$(1,781,864)	$(1,125,597)
Investing activities	—	$ (11,081)
Financing activities	$ 1,816,500	$ 959,483
Net increase (decrease) in cash and cash equivalents	$ 34,636	$ (177,195)

Net cash used in operating activities

Net cash used in operating activities was approximately $1.8 million and $1.1 million for the year ended December 31, 2018 and 2017, respectively. The increase in cash used in operating activities in 2018 compared to 2017 is primarily related to increased professional services and payroll to prepare for our public offering and future operations as a public entity.

We anticipate increasing significantly our research and development efforts and combined with our elevated general and administrative costs in preparation for our future operations as a public entity will generate negative cash flows from operating activities for the foreseeable future.

Net cash used in investing activities

Net cash used in investing activities was $0 and $11,081 for the year ended December 31, 2018 and 2017. The costs incurred related to leasehold improvements to the laboratory space.

Net cash provided by (used in) financing activities

Net cash provided from financing activities was approximately $1.8 million and $1.0 million for the year ended December 31, 2018 and 2017, respectively. This increase is due to increased funding to pay for professional services and payroll in preparation for our public offering and future operations as a public entity.

Recent Accounting Pronouncements

In June 2018, Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2018-07, Compensation — Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting. ASU 2018-07 expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees. An entity should apply the requirements of Topic 718 to nonemployees awards except for specific guidance on inputs to an option pricing model and the attribution of cost. ASU 2018-07 specifies that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor's own operations by issuing share-based payment awards, and that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under Topic 606 Revenue from Contracts with Customers. The Company is currently evaluating the impact of adopting this guidance.

In January 2017, FASB issued ASU No. 2017-01, Clarifying the Definition of a Business ("ASU 2017-01"). The standard clarifies the definition of a business by adding guidance to assist entities in evaluating whether transactions should be accounted for as acquisitions of assets or businesses. ASU 2017-01 is effective for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Under ASU 2017-01, to be considered a business, the assets in the transaction need to include an input and a substantive process that together significantly contribute to the ability to create outputs. Prior to the adoption of the new guidance, an acquisition or disposition would be considered a business if there were inputs, as well as processes that when applied to those inputs had the ability to create outputs. Early adoption is permitted for certain transactions. Adoption of ASU 2017-01 may have a material impact on the Company's consolidated financial statements if it enters into future business combinations.

In August 2016, FASB issued ASU No. 2016-15, Classification of Certain Cash Receipts and Cash Payments (a consensus of the Emerging Issues Task Force) ("ASU 2016-15"). The amendments in ASU 2016-15 address eight specific cash flow issues and apply to all entities that are required to present a statement of cash flows under ASC Topic 230, Statement of Cash Flows. The amendments in ASU 2016-15 are effective for public business entities for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. Early adoption is permitted, including adoption during an interim period. Adoption of ASU 2016-15 will not have a material impact on the Company's consolidated financial statements.

In March 2016, FASB issued ASU No. 2016-09, Improvements to Employee Share-Based Payment Accounting ("ASU 2016-09"). ASU 2016-09 simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. Early adoption of ASU 2016-09 did not have a material impact on the Company's consolidated financial statements.

In February 2016, FASB issued ASU No. 2016-02, Leases (Topic 842) ("ASU 2016-02"). ASU 2016-02 addresses the financial reporting of leasing transactions. Under current guidance for lessees, leases are only included on the balance sheet if certain criteria, classifying the agreement as a capital lease, are met. This update will require the recognition of a right-of-use asset and a corresponding lease liability, discounted to the present value, for all leases that extend beyond 12 months. For operating leases, the asset and liability will be expensed over the lease term on a straight-line basis, with all cash flows included in the operating section of the statement of cash flows. For finance leases, interest on the lease liability will be recognized separately from the amortization of the right-of-use asset in the statement of operations and the repayment of the principal portion of the lease liability will be classified as a financing activity while the interest component will be included in the operating section of the statement of cash flows. This guidance is effective for annual and interim reporting periods beginning after December 15, 2019 as the Company is an emerging growth company. Early adoption is permitted. The Company has not yet completed the analysis of how adopting this guidance will affect its consolidated financial statements.

In January 2016, FASB issued ASU 2016-01 ("ASU 2016-01"), which amends the guidance in U.S. GAAP on the classification and measurement of financial instruments. Changes to the current guidance primarily affect the accounting for equity investments, financial liabilities under the fair value option, and

the presentation and disclosure requirements for financial instruments. In addition, the ASU clarifies guidance related to the valuation allowance assessment when recognizing deferred tax assets resulting from unrealized losses on available-for-sale debt securities. The new standard is effective for fiscal years and interim periods beginning after December 15, 2017, and upon adoption, an entity should apply the amendments by means of a cumulative-effect adjustment to the balance sheet at the beginning of the first reporting period in which the guidance is effective.

In May 2014, FASB issued Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers (Topic 606) ("ASU 2014-09"), which supersedes existing revenue recognition guidance. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods and services. The standard defines a five-step process to achieve this principle and requires companies to use more judgment and make more estimates than under the previous guidance. These judgments and estimates include identifying performance obligations in the customer contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. ASU 2014-09 also requires additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts. The new standard is effective for fiscal years and interim periods beginning after December 15, 2018, as the Company is an emerging growth company. The Company is currently evaluating the impact of adopting this guidance.

Critical Accounting Policies and Estimates

Long-Lived Assets

The Company assesses, on an annual basis, the recoverability of the carrying amount of long-lived assets used in continuing operations. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flow expected to be generated by the asset. A loss is recognized when expected future cash flow (undiscounted and without interest) are less than the carrying amount of the asset. The impairment loss is determined as the difference by which the carrying amount of the asset exceeds its fair value. No impairment was recognized during the periods ending December 31, 2017 and 2016.

Stock-based Compensation

The Company's stock-based compensation program grants awards which may include stock options and restricted stock awards. The fair values of stock option grants are estimated as of the date of the grant using the Black-Scholes option valuation model. The fair values of restricted stock awards are based on fair value of Company's common stock on the date of the grant. The fair values of the stock-based awards, including the actual forfeitures, are then expensed over the requisite service period, generally the vesting period, for each award.

For awards granted to consultants and non-employees, compensation expense is recognized over the vesting period of the awards, which is generally the period during which services are rendered by such consultants and non-employees.

Derivative Liabilities

During 2017, we issued warrants for a variable number of shares of common stock at an adjustable price. We determined that these warrants are derivative instruments pursuant to FASB ASC 815 "Derivatives and Hedging."

The accounting treatment of derivative financial instruments requires that we record the warrants as a liability at fair value and mark-to-market the instruments at fair values as of each subsequent balance sheet date. Any change in fair value is recorded as a change in the fair value of derivative liabilities for each reporting period at each balance sheet date.

Financial Accounting Standards Board ("FASB") Accounting Standards Codification "ASC 820," Fair Value Measurements and Disclosures, (FASB ASC 820), defines fair value, and establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives

the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy are described below:

Level 1: Quoted prices for identical assets and liabilities traded in active exchange markets, such as the New York Stock Exchange.

Level 2: Observable inputs other than Level 1 including quoted prices for similar assets or liabilities, quoted prices in less active markets, or other observable inputs that can be corroborated by observable market data. Level 2 also includes derivative contracts whose value is determined using a pricing model with observable market inputs or can be derived principally from or corroborated by observable market data.

Level 3: Unobservable inputs supported by little or no market activity for financial instruments whose value is determined using pricing models, discounted cash flows methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgement or estimation; also includes observable inputs for non-binding single dealer quotes not corroborated by observable market data.

Fair value is a market-based measure considered from the perspective of the market participant rather than an entity-specific measure. Therefore, even when market assumptions are not readily available, the Company's own assumptions are set to reflect those that market participants would use in pricing the asset or liability at the measurement date.

The only liabilities measured at fair value on a recurring basis are the derivative warrants which represent Level 3 liabilities. In 2018, management made the determination that the warrants to purchase common stock were no longer required to be recorded as derivative liabilities. Therefore, $8,474 of warrant liability was reclassified to additional paid-in capital.

Revenue Recognition

Revenue from genetic sequencing services and equipment sales are recognized when there is persuasive evidence of an arrangement, service has been rendered or product has been delivered, the sales price is determinable, and collectability is reasonably assured. Service is deemed to be rendered when the results have been reported to the customer who ordered the sequencing. To the extent that sequencing services have been prepaid, but results have not yet been reported, recognition of all related revenue is deferred until results are reported.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined in the rules and regulations of the SEC. We do not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or for any other contractually narrow or limited purpose.

JOBS Act

Section 107 of the JOBS Act provides that an "emerging growth company" can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. In other words, an emerging growth company can delay the adoption of new or revised accounting standards until those standards would otherwise apply to private companies. We have irrevocably elected to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

For as long as we remain an emerging growth company under the recently enacted JOBS Act, we will, among other things:

- be permitted to have only two years of audited financial statements and only two years of related selected financial data and management's discussion and analysis of financial condition and results of operations disclosure;
- be entitled to rely on an exemption from compliance with the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to the Sarbanes-Oxley Act;
- be entitled to reduced disclosure obligations about executive compensation arrangements in our periodic reports, registration statements and proxy statements; and
- be exempt from the requirements to seek non-binding advisory votes on executive compensation or golden parachute arrangements.

Although we are still evaluating the JOBS Act, we currently intend to take advantage of some or all of the reduced regulatory and reporting requirements that will be available to us so long as we qualify as an "emerging growth company." Among other things, this means that our independent registered public accounting firm will not be required to provide an attestation report on the effectiveness of our internal control over financial reporting so long as we qualify as an emerging growth company, which may increase the risk that weaknesses or deficiencies in our internal control over financial reporting go undetected. Likewise, so long as we qualify as an emerging growth company, we may elect not to provide you with certain information, including certain financial information and certain information regarding compensation of our executive officers, that we would otherwise have been required to provide in filings we make with the SEC, which may make it more difficult for investors and securities analysts to evaluate our company. As a result, investor confidence in our company and the market price of our common stock may be materially and adversely affected.

BUSINESS

Overview

We are a life sciences instrumentation and services company focused on providing our tSMS™ technology to the scientific and medical community in order to accelerate the understanding of the molecular mechanisms of disease and fundamental biological processes. We have developed and offer a unique, proprietary sequencing technology platform in the multi-billion-dollar NGS market, ideally suited for emerging applications in the research and development of precision medicine and epigenetic investigations. Our technology advantage provides a simple method of quantifying DNA and RNA molecules at single molecule resolution, eliminating bias from PCR amplification or other preparation steps required by other technologies. Data produced by our tSMS platform generate accurate, reproducible molecular profiles, often revealing previously unknown characteristics and providing new insights into the biology being researched. Leveraging our expertise with the tSMS technology platform, we aim to provide the scientific and medical communities with tools for development of diagnostic applications that could lead to improved outcomes for patients with chronic and fatal diseases.

Our strategy is to generate revenue through product sales, sequencing services and research grants in applying our single molecule sequencing platform to develop a wide variety of RNA-based applications. Our customers are consumers of our NGS products and services as academic and government institutes, hospitals and medical centers, pharmaceutical and biotechnology companies, non-profit research organizations and agricultural genomics organizations. Our technology has implications in RNA-based discovery of biomarkers for the early detection of diseases, specifically cardiovascular artery disease and epithelial cancer. As we unlock the inherent advantages of single molecule sequencing, we aim to integrate our tSMS platform in the development of novel applications in the rapidly emerging precision medicine market.

Background on Genetic Sequencing

Genetic inheritance in living systems is conveyed through a naturally occurring information storage system known as deoxyribonucleic acid, or DNA. DNA stores information in linear chains of chemical bases known as adenine (“A”), cytosine (“C”), guanine (“G”) and thymine (“T”). Inside living cells, these chains usually exist in pairs bound together in a double helix by complementary base pairs. A “genome” is an organism’s complete set of DNA, which for humans consists of approximately three billion DNA base pairs. Ribonucleic acid, or RNA, is a molecule used by organisms to convey genetic information. A “transcriptome” is an organism’s complete set of RNA molecules at an active cellular state and includes both protein coding and noncoding RNA transcripts.

Genetic sequencing is the process of determining the order of nucleotide bases (A, C, G, or T) in a sample. This consists of three phases: sample preparation, physical sequencing, and analysis. Generally, the first step of sample preparation is either to shear the target genome into multiple small fragments or, depending on the amount of sample DNA or RNA available, amplify the target region using a variety of molecular methods. In the physical sequencing phase, the individual bases in each fragment are identified in order, creating individual sequence reads. The number of individual bases identified contiguously is defined as “*read length*.” The sequencing throughput is generally defined as the product of the number of individual sequence reads and the average read length of the sequence reads. In the analysis phase, bioinformatics software is used to align overlapping reads, which allows the original genome to be assembled into contiguous sequence.

Studying genomes and transcriptomes helps scientists understand the inheritance of biological characteristics, developmental biology and normal and disease states of cells and organisms. Genetic variation accounts for many of the differences between individuals, such as eye color and blood group, and also affects a person’s susceptibility to certain diseases such as cancer, heart disease or diabetes. Genetic variation can also determine a person’s response to drug therapies.

A trend in healthcare is towards ‘personalized medicine’ to enable more accurate diagnosis and treatment through better understanding of each individual patient’s disease. We believe that a greater understanding of the genome will lead to this new healthcare paradigm where diseases are understood at

the molecular level, allowing patients to be diagnosed according to genetic information, in many instances earlier and more accurately, and be treated with drugs designed to work on specific molecular targets. The goal is to offer precision personalized medicine that will identify disease earlier, reduce healthcare costs, and enable more appropriate and effective treatment for better outcomes and quality of life. To date, this has largely been done through genomic testing, which provides information about a patient's predisposition to disease or likely response to medication, due to each individual's unique constellation of genes. However, DNA testing is, in most cases, a static readout that does not change through a patient's lifetime or disease course. It does not provide information about the patient's current health status. It is increasingly understood that the RNA transcriptome provides dynamic information about the current state of the body that can be used to assess health, to detect early signs of disease and to enable physicians to select the appropriate treatment, monitor response to treatment and detect unwanted side effects.

Cell-free Nucleic Acids as Disease Biomarkers: Most of the DNA and RNA in the body are inside the cells, but a small amount of nucleic acids is also found in biological fluids such as blood, saliva, and urine. This material is generally referred to as cell-free DNA ("cfDNA") and cell-free RNA ("cfRNA"). Analysis of these free-floating molecules can lead to multiple applications such as early disease detection, drug selection, and treatment monitoring. For example, large amount of cell-free DNA material might indicate a bacterial infection or sepsis in very early stages. Another such example is cfRNA analysis for detection, diagnosis, and monitoring of malignant diseases such as cancer. The cfRNA transcripts are differentially expressed between normal and cancerous tissues. These transcripts can be used as a reliable biomarker for cancer screening and diagnostic applications. Analysis of cfRNA can be used to measure dynamic changes in the gene expression, allow oncologists to evaluate disease status, predict outcomes from anti-tumoral therapies and monitor the disease after treatment.

Sequencing Technologies: There are different sequencing technologies available for sequencing genetic material, each producing the sequence data in a unique format. Some of the technologies produce millions of sequence reads with a very short read length, generally less than 300 nucleotide bases. These technologies are generally referred as short read NGS platforms. Other technologies produce several thousand sequence reads of a very long read length, generally more than nucleotide 1000 bases. These technologies are generally referred as long read NGS platforms. Both, the short as well as long read NGS technologies have their advantages in various settings. For *de novo* assembly of genomes and long RNA transcripts, the long contiguous reads from the long read NGS technologies are preferred. The short reads can be used to further fill in the gaps from the data. For the molecular counting application, a large amount of independent reads from the short read NGS technologies are preferred. Different genes are present in varying amounts in biological samples, and the success of the technique is highly dependent on the dynamic range of the detection technology.

Most single molecule sequencing technologies do not require amplification, though many of the long read technologies still require complex sample manipulation prior to sequencing. This is especially true for sequencing of RNA molecules.

Our single molecule solution eliminates the need for PCR, adapter ligation, and other bias inducing steps. The ability to directly observe billions of single molecules in rapid succession allows our system to observe sequence contexts and cell type variation that present challenges for existing technologies. Unlike many other sequencing platforms, minimal amounts of sample preparation are required. In addition, our system does not require the routine PCR amplification needed by most NGS systems, thereby avoiding systematic amplification bias. Our system still requires isolation and preparation of DNA or RNA samples; however, our system is adaptable to most purification and preparation kits and techniques that are currently available in the market and no additional or specialized steps are required to prepare the samples for sequencing.

Market Opportunity

The market for our products and services is segmented into two major categories, DNA NGS and RNA NGS, offering a combined addressable market opportunity of approximately $1.03 billion in 2019 that is projected to grow to $5.26 billion by 2025 at a CAGR of 31.2%.

DNA NGS market opportunity: The global DNA NGS market is projected to grow from $5.75 billion in 2018 to $22.72 billion in 2025 at a CAGR of 21.7% from 2018-2025. Our customers in the DNA NGS market largely consist of academic and research institutes and forensic labs. Collectively, academic and research institutes and forensic labs, pathology labs and diagnostic centers represent a projected 58.4% of the end user market share in 2019. The versatility of the tSMS platform can be applied across our near-term target segments of drug discovery, precision medicine and other novel applications. We intend to focus our commercialization efforts on academic and research institutes and forensic labs in North America and Europe, and will eventually expand it to the Asia Pacific region. North America and Europe represent 69.9% of the global market in 2019.

RNA NGS market opportunity: The global RNA NGS market is projected to grow from $1.41 billion in 2018 to $7.98 billion in 2027 at a CAGR of 19.3%. We intend to leverage our simplified workflow, which reduces bias and misrepresentation caused by various enzymatic steps that other technologies utilize, to accelerate market penetration. The RNA NGS market can be segmented by products and services, end users, applications, and sequencing technologies. Research and academic centers, pharmaceutical and biotech companies, and pathology labs forensic labs and diagnostic centers represent a projected 76.7% share of the end users in 2019. Our simplified and mature RNA sequencing approach will facilitate a broad application pool across diagnostics, drug discovery, precision medicine and biomarker discovery field. We will offer RNA sequencing platform and consumables, sequencing services and data analysis products featuring our tSMS technology to such potential customers. Furthermore, we intend to focus on commercialization of our products in North America, Europe and Asia Pacific regions which collectively account for 81.2% of the global market geographically in 2019.

Our tSMS technology platform produces data with potential diagnostic implications, detecting biomarkers for cardiovascular diseases and various types of cancer, and offers an optimal solution for use in RNA sequencing applications. We anticipate using these strengths to capture a portion of the growing multi-billion dollar NGS market. We strive to build and control intellectual property around the instruments, consumables, and methods that enable these applications to strengthen our market position. The major consumers of the NGS include academic and government institutes, hospitals and medical centers, pharmaceutical and biotechnology companies, non-profit research organizations and agri-genomics organizations. We will market our sequencing technology, optimized for accurate analysis of genetic information, for development of potentially high growth applications in rapidly emerging sectors such as RNA-based diagnostics, precision medicine and epigenetic analysis. Many of our target customers are engaged in drug discovery, biomarker discovery, and companion diagnostics for supporting clinical trials.

There are multiple short read and long read NGS technologies available in the market that partially address the need for accurate and sensitive analysis of genetic information. These technologies can further be classified based on the resolution of the technology as single molecule-sequencing technology and amplification-based technologies. Over the past two decades, the researchers and clinicians have used these technologies to gain a deeper understanding of nucleic acids, to study the biomarkers associated with diseases, to identify molecules for new drug discovery, to create novel applications for early screening and diagnosis, and more recently to create genome-editing. While researchers are making progress on various fronts by utilizing a combination of these technologies, there remains a wide gap between the needs of the research community and the capabilities of existing sequencing tools. The gap is affecting the speed and potential of the research, and is a result of the inherent limitations of current technologies. These limitations are summarized below:

- Biased results: The short-read polymerase chain reaction (PCR) sequencing technology requires a large number of DNA molecules during the sequencing process. To generate enough DNA molecules, an amplification step is required during sample preparation. This amplification process can introduce errors known as amplification bias. The effect of this bias is that resulting copies are not uniformly representative of the original template DNA, causing skewed data representation in the final results.

- Inefficient library preparation: Many of our competitors use systems requiring multi-step sample preparation protocols to prepare sample libraries before sequencing. This library preparation technique is inefficient, capturing only a fraction of the informative input material.

The process selectively captures the molecules which are present in large quantities while losing lower frequency molecules, thus not producing a true representation of the input material. The library preparation protocol limits the minimal amount of input sample. The library preparation steps also add significant burden on the sample preparation.

- Inadequate throughput: Applications such as RNA transcriptome, gene expression and biomarker discovery require accurate quantification of data. The long read single molecule technologies fall short due to smaller number of strand throughput required to substantiate the presence or absence of a biomarker. The short-read amplification technology fall short due to a skewed data representation caused by the non-linear amplification bias present in the system.

- Lower sensitivity: In cases where the original template DNA contains regions of relatively high G-C content or relatively high A-T content, the amplification process tends to under-represent these regions. As a result, these regions, which may contain entire genes, can be completely missed. The non-linear nature of the amplification thus limits its ability to detect subtle changes in the genetic signature.

Our Solution

Our tSMS platform offers a leading single molecule sequencing solution for DNA and RNA sequencing by performing unbiased detection of nucleic acids without the need for complex sample manipulation. Our tSMS platform incorporates high resolution, cost-effective and accurate technology to detect low levels of DNA and RNA. For example, RNA sequencing on the SeqLL platform detects transcripts regardless of abundance and with high accuracy in quantifying gene expression changes associated with certain disease. SeqLL's unique, amplification and library-free sequencing technology enables detection of subtle changes in RNA transcript levels that are undetectable with other methods because of the above-mentioned limitations.

Our platform derives the sequencing information directly from the sample itself, not a copy of the sample. It does not require amplification at any stage of the process and offers simple, straight-forward sample preparation protocols. The technology uses a single stranded DNA and RNA material with length that range from less than 20 bases to more than 1000 bases as an input. The platform then captures the material on a glass surface and uses a patented fluorescence based optical detection apparatus combined with a precision microfluidics system to perform a sequencing-by-synthesis reaction on the input sample. The single molecule fluorescence signal from millions of individual strands is captured by images using a high sensitivity camera during multiple cycles of nucleotide incorporation. Our powerful image analysis system processes these images to produce the sequence data as an output. The output data contains millions of individual unique sequences with the average read length between 35 – 60 nucleotide bases, with a range of 20 – 100 nucleotide bases. This length is sufficient to allow unambiguous identification of the origin of each sequence.

The single molecule resolution of the sequence data in association with a sub 100 nucleotide base read length positions the SeqLL platform as the only commercially available short read single molecule sequencer available in the market. The amplification based short read technologies are already helping the scientists in the field of research, diagnostics and therapeutics. By giving the short-read technology the power of single molecule resolution, we believe that our tSMS technology offers critical advantages over existing technologies, including:

- Minimal Sample Preparation — The tSMS platform offers a simple sample preparation process. The DNA strands are cut in shorter sizes, converted into single strands, and then tagged with a universal surface capture primer. By avoiding the complex multi-step library preparation method, the sample integrity is preserved, and the bias and errors in the sequence data output exhibited by other methods are avoided.

- Greater Sensitivity — The tSMS platform offers a high level of sensitivity as each strand is identified and synthesized irrespective of its abundance in the sample. In the existing amplification-based technologies, low expressing transcripts are typically masked due to preferences and may be missed or have their numbers minimized in the final data analysis. The

simplified sample preparation along with single molecule resolution facilitates the unbiased, proportionate representation of input sample, even of the low expressing transcripts and constructs. This allows for obtaining more accurate information earlier, and for clinical treatments or decisions to be made sooner.

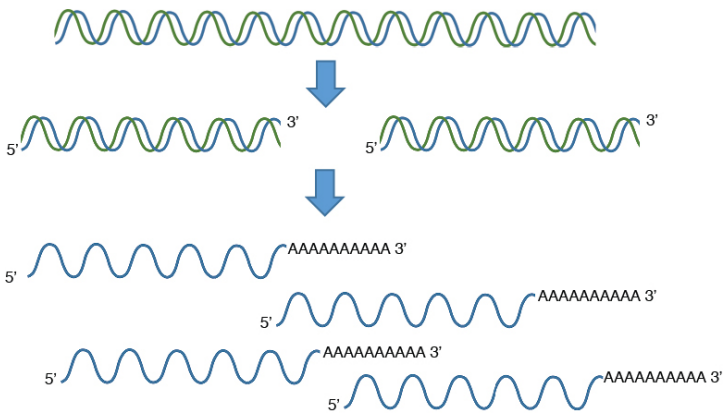
- High Accuracy — The tSMS platform provides an accurate set of data and results as well as a broader range of molecules to be evaluated. The ability to count each individual molecule, combined with simplified sample preparation and greater sample sensitivity, yields an accurate quantitative representation of sample in the final data. Our technology has been demonstrated to produce robust accurate short reads for a variety of applications.

- Seamless Flexibility — Our tSMS platform provides flexibility in two main aspects — throughput and applications. The tSMS platform has the ability to scale the throughput across a range of small to large projects. The programmable instrument workflow and modular design of consumables provide flexibility to choose the sample coverage and read length required for the final data. The simplified sample preparation allows for analysis of any genetic material that can be attached to a glass surface.

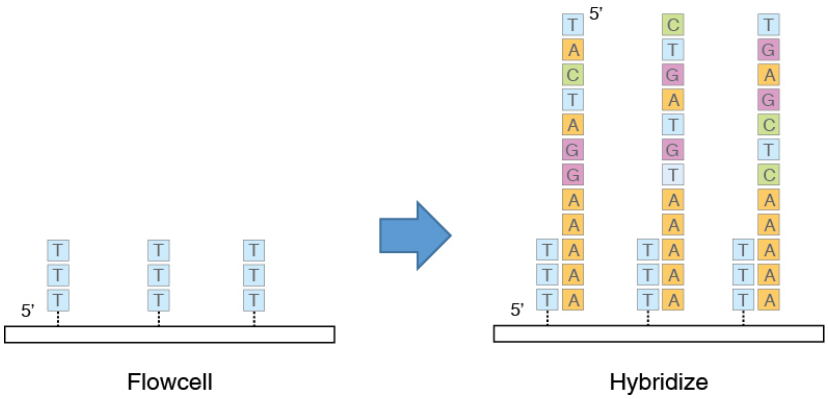
Our Gene Sequencing Methodology

The patented tSMS technology is the essence of the tSMS platform. The gene sequencing methodology takes genetic material as input and produces sequence data as an output through sequentially processing the following five major steps.

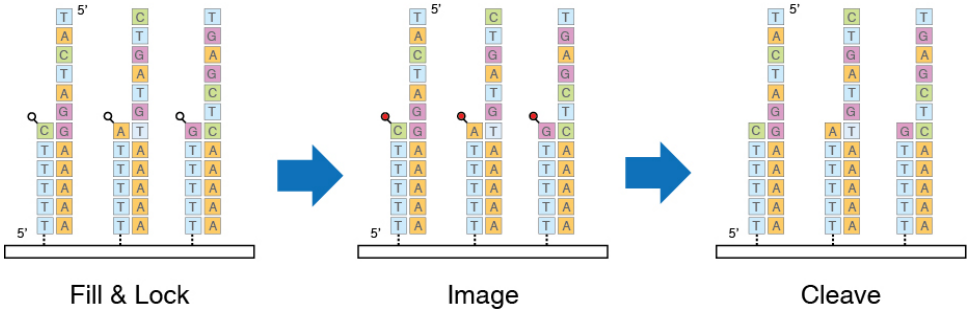
1. Sample preparation: A double helix strand is cut in to fragments of 100 – 200 nucleotides in length. In the case of the cfDNA and cfRNA material, this step is not necessary as cell-free strands are generally short and fit the profile of the input material. The strand fragments are then denatured to a single strand, and a polyA universal priming sequence is added to one end of each strand as shown in the following figure.



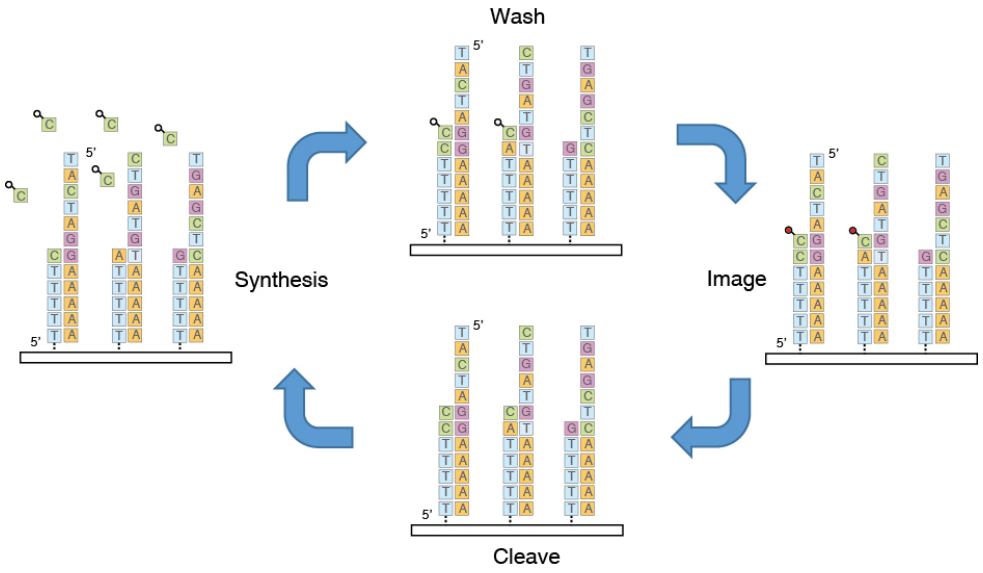
2. Sample loading: The strands are hybridized in a flowcell with billions of universal oligo T capture sites mobilized on the flowcell surface. The tSMS method typically utilizes a dT50 primer to initiate sequencing from a 3′ poly-A tail, although other capture primers may be used to increase the specificity of sample hybridization.



3. Template registration: Once hybridized, a “Fill & Lock” step fills up the rest of the open bases from the Poly-A tail followed by the addition of fluorescently labeled nucleotides to the start of the strand. A laser illuminates the flow cell and the camera records the location of each captured sample strand. The flow cell is moved in sequential steps to allow the camera to cover its entire active area. The dye molecules are then cleaved and washed away.



4. tSMS sequencing-by-synthesis:



a. Synthesis: DNA polymerase enzyme and the first of the four types of novel fluorescently labeled nucleotides are added. If the nucleotide is complementary to the next base in the template strand, the polymerase will add it to the primer strand. The nucleotides are designed to inhibit the polymerase from incorporating more than one base at a time on the same strand.

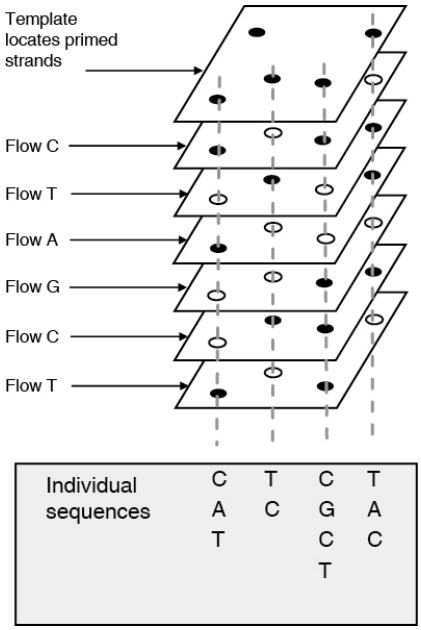
b. Wash: Excess polymerase and unincorporated nucleotides are then washed away. This step ensures that only the incorporated nucleotides are available for fluorescence imaging.

c. Image: The narrow bandwidth laser illuminates the flowcell surface to excite the fluorescently labeled nucleotides. The camera records the locations where fluorescently labeled nucleotides were added.

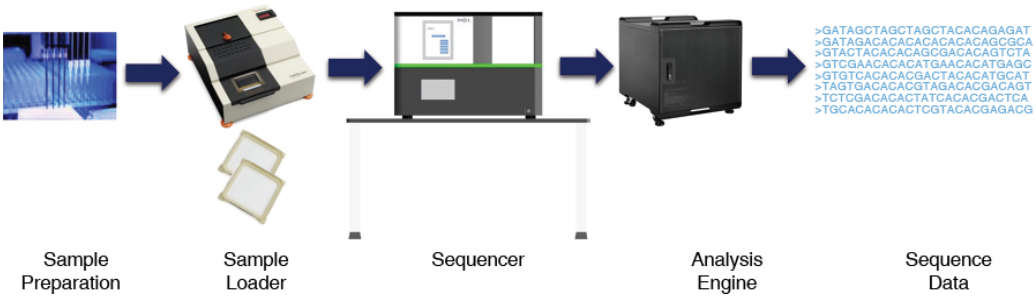
d. Cleave: The fluorescent dye molecules are then cleaved from the labeled nucleotides and washed away. This step ensures that these molecules are fluoresced only for that particular nucleotide addition cycle.

The process is repeated with each of the four types of labeled nucleotides until a desired sequence length is reached. As an example, repeating this cycle 120 times adds an average of more than 33 nucleotides to the primer strand. In sequencing, this is known as the “read length.”

5. Data processing: The image analysis computer analyzes the series of images from each cycle and determines the sequence of bases in the template strand. The sequence is "read" by correlating the position of a fluorescent molecule in its vertical track with the knowledge of which base was added at that cycle. The sequence data is packaged in standard sequencing data formats for further bioinformatics analysis.



Our True Single Molecule Sequencer (tSMS)



As described under our gene sequencing methodology above, the tSMS single molecule sequencing system combines a simplified operation with powerful capabilities to directly sequence original samples of RNA and DNA. The tSMS system consists of four major components:

1. Consumables: The flowcells and reagent kit are the major components of the consumables that the instrument needs at the start of every new run. The custom flowcell features 25 discrete flow channels, and each channel of the flowcell has millions of capture probes deposited on the cover glass. The sequencing samples are loaded in to the flowcell channels using the sample loader. The sequencing run can sequence up to two flowcells in a single run. The reagent kit for the sequencing run consists of custom prepackaged bottles that store proprietary tSMS chemistry reagents and wash buffers for the system. All of the flowcells and reagent kits are barcoded, so the sequencer can scan and store the barcodes as a part of the experiment setup procedure.

2. Sample Loader: The sample loader facilitates loading the billions of tailed single strands on to the glass surface of the standard 25 channel flowcell. A temperature-controlled chamber improves the hybridization efficiency and houses a mechanism to hold a standard flowcell used in the system. The proprietary sample loading block design helps to keep the transfer volume to near zero microliter, while the system offers precision control of loading the sample in 25 discrete channels without any cross-contamination. The input material volume for the sample loader can be as little as 20 microliters.

3. tSMS Sequencer: The sequencer accepts up to two flowcells for a sequencing run, allowing sequencing of up to 50 individual samples in a single run. The benchtop sequencer is a fully automated device that combines a Total Internal Reflection Fluorescence (TIRF) microscopy technique with a high precision, temperature-controlled microfluidics system. The microfluidics system houses the reagent kit required to perform tSMS chemistry, and uses high precision pumps and valves to formulate the chemistry just-in-time for delivery to the flowcell chamber during each chemistry cycle. The two flowcell design maximizes the machine utilization by performing the chemistry cycle on one flowcell while the other flowcell is going through the imaging cycle, and vice-a versa. The flowcells are mounted on a high speed, high accuracy multi-axis stage that moves the flowcell along the channel with nanometer grade precision. The high-power optics system consists of a narrow bandwidth laser to provide the excitation signal, while the high-fidelity imaging system uses a highly sensitive camera for capturing the single molecule signal emitted by the fluorophores. All of these subsystem operations are integrated and controlled by an on-board computer in a completely automated fashion over the course of the run. A simple touch screen based graphical user interface walks the user through an intuitive run setup. A typical run on the sequencer captures 3 to 6 million images containing information about billions of individual single molecules in the strands.

4. Image Analysis Engine: The image analysis engine processes the images captured by the sequencer camera, aligns them with the template image at individual position, and creates the sequence data file to be used for further bioinformatics analysis. It features a high-power CPU array with large storage capacity hard drives specifically designed for intensive image analysis and storage purposes. The image analysis engine runs parallel to the camera, processing the images as soon as camera starts imaging the flowcell. The image analysis engine software monitors the instrument status and automatically uploads the sequence data at the end of the run at a user-configurable network location.

   The instrument has a web-based interface for remote monitoring that updates the key sequencing metrics and the instrument status in real time. The database system of the instrument stores the detailed logs of the instrument for both the record keeping and troubleshooting purposes.

Future Products

In the future, we expect to enter the clinical diagnostics market by partnering with biotech and pharma companies to develop RNA-based diagnostics. We plan to develop a clinical grade tSMS sequencer and to secure FDA clearance for use of the instrument for one or more clinical diagnostic tests. We intend to commercialize diagnostic tests where the tSMS platform offers accurate diagnostic capability, such as non-invasive prenatal testing (NIPT) for early pregnancy and high BMI mothers (below current detection levels), liquid biopsy for oncology, microbiome analysis, and RNA transcriptome-based diagnostics for cardiovascular disease, infection and others. We will look to increase industry visibility and expand our reach globally for both sequencing services and instrument sales through strategic customer relationships and partnerships with larger organizations that can increase global support, supply and distribution. Through those partnerships, we plan to identify new, high value, cutting edge applications that are uniquely enabled by its amplification-free, short-read, direct DNA and RNA sequencing technology.

The accuracy, sensitivity, and simplicity of the tSMS platform allows the technology to be applied for developing assays and instruments used for quality control of manufactured therapeutic products, including gene therapy technologies. We plan to explore commercial stage partnerships with therapeutics companies.

As we expand product lines to address the diagnosis of disease, regulation by governmental authorities in the United States will become an increasingly significant factor in development, testing, production and marketing. Products that we develop in the diagnostic markets, depending on their intended use, may be regulated as IVDs by the FDA. Each medical device that we wish to distribute commercially in the U.S. will likely require us to seek either 510(k) clearance or approval of a pre-market approval application (PMA) from the FDA prior to marketing the device for in-vitro diagnostic use. Clinical trials related to our regulatory submissions may take years to complete and represent a significant expense. The 510(k) clearance pathway usually takes from three to 12 months, but can take longer. The PMA pathway is more costly, lengthy and uncertain, and can take from one to three years, or longer.

We have not sought FDA approval of our sequencers because to date we have marketed them for research purposes and not for clinical diagnostics. We will likely need to pursue regulatory approvals from the FDA when we attempt to enter the diagnostics market, which process is expensive, involves a high degree of risk and there is no assurance that we will be able to develop a commercially viable product. Even if our products are authorized and approved by FDA, we must still meet the challenges of successful marketing, distribution and customer acceptance. We do not intend to use proceeds from this offering to pursue FDA approval. We will raise additional funds prior to pursuing FDA approval.

Markets for Our Technology

The initial target market for our instruments and sequencing services has been the life sciences research and development market where we provide solutions for a variety of applications including drug discovery, biomarker discovery and companion diagnostics. This market includes laboratories associated with universities, scientific research centers, and government institutions, and biotechnology and pharmaceutical companies. In the future, we plan to enter the clinical diagnostics sector by partnering with biotech and pharmaceutical companies to develop diagnostic testing products using our technology in order to provide personalized genetic data and analysis to individual consumers.

There are a number of emerging markets for sequencing-based tests, including molecular diagnostics, which represent significant potential opportunities for us. The development of these markets is subject to variability driven by ongoing changes in the competitive landscape, evolving regulatory requirements, government funding of research and development activities, and macroeconomic conditions. Introductions of new technologies and products, while positive to the overall development of these markets, may result in greater competition for the limited financial resources available. As we expand into these emerging markets, the development of our business will be impacted by the variability of the factors affecting the growth of these markets.

The SeqLL technology is tailored for the following applications:

- Life sciences research and development: NGS technologies are accelerating the discovery and development of more effective new drugs. The complex nature of biological pathways, disease mechanisms and multiple drug targets requires an accurate, unbiased, and sensitive molecular counting platform. Single molecule sequencing, with its unparalleled linear quantitative accuracy in a large scale expression analysis could enable high-throughput screening of promising drug leads. During clinical trials, our technology could potentially be used for companion diagnostics to generate individual gene profiles that can provide valuable information on likely response to therapy, toxicology or risk of adverse events. The tSMS platform may also enable more precise selection of patient pools and individualization of therapy.
- Liquid biopsy: Liquid biopsy is emerging as a simple and non-invasive alternative to the traditional tissue biopsy approach for disease screening and monitoring. A simple draw of blood vial contains millions of tiny fragments of cell-free DNA/RNA material with lengths of order of 100 – 200bp, which carry informative signature of cancer and other life-threatening diseases even in a very early stage of the disease progression. With its quantitative accuracy, simple sample preparation methodology, and its ability to accurately sequence fragmented short reads, SeqLL’s single molecule sequencing offers the best suited solution for liquid biopsy.

- Infectious disease: Infectious diseases are disorders caused by bacteria, viruses, and fungi. All of these organisms contain DNA and RNA. The detection and sequencing of the DNA and RNA from pathogens provides medically actionable information for diagnosis, treatment and monitoring of the infections. Accurate sequence information could also help to predict drug resistance.
- Clinical diagnostics: The amplification and ligation free sequencing method allows SeqLL to identify subtle changes in the RNA transcript levels that are undetectable with other methods because of amplification bias and loss of low-level transcripts inherent to the other technologies. The power of tSMS technology can help to address the large unmet need for biomarker discovery to diagnose diseases such as cardiovascular diseases and cancer at very early stages.
- Microbiome analysis: Microbial communities in and on the body show uniform bacterial diversity in healthy individuals. Drugs and diet can disrupt the microbial diversity, and thereby can affect disease progression and treatment efficacy. SeqLL's technology can accurately quantify the gene signature for all bacteria present and capture a real time snapshot of the microbiome. This data can be used by physicians for disease treatment by applying methods to encourage growth of beneficial microbes and eliminate harmful microbes.

Competition

Given the market opportunity, there are a significant number of competing companies offering DNA sequencing equipment or consumables. These include Illumina, Inc., Pacific Biosciences of California, Inc., Thermo Fisher Scientific, Inc., Qiagen N.V., and Oxford Nanopore Technologies, Ltd. Based on published revenue data, Illumina, Inc. leads the NGS technology with approximately 75% of the market share, followed by Pacific Biosciences of California, Inc. and Oxford Nanopore Technologies, Ltd. We believe that we are uniquely positioned among the competition to be the only company offering the high strand throughput with a power of single molecule resolution.

Our competitors have greater financial, technical, research and/or other resources than we do. These companies also have larger and more established manufacturing capabilities and marketing, sales and support functions. We expect the competition to intensify within this market. The increased competition may result in pricing pressures, which could harm our sales, profitability or market share. In order for us to successfully compete against these companies, we will need to demonstrate that our products deliver superior performance and value. We will also need to continually improve the breadth and depth of current and future products and applications.

Our Business Strategy

Our mission is to empower researchers with improved genetic tools that enable scientists and physicians to better understand the molecular mechanisms of disease and the underlying biological systems. This knowledge is essential to the continued development of new breakthroughs in genomic medicine that address the critical concerns involved with today's personalized medicine.

We generate our revenues through a combination of product sales, fee-for-sequencing services, and research grants. We plan to expand these revenues from recurring and prospective clients by the following key strategies:

- Provide the scientific community with a combination of sequencing services and NGS instrumentation to serve markets that we believe are inadequately addressed by existing technologies.
    - Assist in the development of new classes of RNA-based diagnostics.
    - Collaborate with researchers to enhance pharmacogenomics and biomarker discovery
    - Support drug developers seeking a better understanding of the side-effects of their new drugs.
- Continue to innovate and develop new aspects of our products and technology, applications and instrumentation through scientific collaborations, including grants.

- Leverage our expertise and the broad applicability of our tSMS platform to grow into new markets through strategic collaborations, partnerships, existing data sets, and customers.

- Maintain a strong culture and network of technical resources while continuously attracting new talent to build an industry leading single molecule solutions company.

We have assembled an experienced management team, board of directors, scientific founders and advisory board who bring industry experience to our Company and business strategy. The members of our team have deep experience in discovering, developing and commercializing with a particular focus on sequencing products and applications.

Marketing, Sales, Service and Support

SeqLL's business model is focused on offering a comprehensive and reliable solution that drives adoption, acceptance, customer loyalty, customer confidence, revenue growth and shareholder value. We plan to focus on addressing specific markets for which there are not currently adequate solutions. This will require education and demonstration of added value by helping customers to meet program timelines, providing data that supports their programs, and implementing custom solutions to meet each customer's specific objectives. We currently generate revenue by selling to existing customers and through collaborative, research-focused efforts that create the additional sales opportunities. In the future, we plan on developing a dedicated sales force comprised of full-time employees complemented by regional sales consultants focused on the NGS market. To accelerate instrument and sequencing services sales, we will seek to build relationships with established sales and marketing organizations around the globe. We will benefit from quick access to large customer bases associated with these organizations while also controlling internal sales costs.

To achieve recurring growth for our service revenues and earn new customers, we are implementing the following initiatives to increase market awareness of the tSMS platform:

1. Defining our value proposition in terms of commercial value and solution to customer needs, as related to platform flexibility, speed to solution, and comprehensive quality of the genetic information provided.

2. Updating customer portal to focus on the variety of applications and the solutions model SeqLL provides through sequencing products. The solutions model includes a multi-tiered scope from straight sample sequencing project to a comprehensive application development program. This approach will attract small companies without adequate resources as well as large companies looking for research support.

3. Creating new literature that highlights our technology, instruments and capabilities. This includes brochures, white papers, application notes, case studies, and solution's value proposition marketing material.

4. Implementing new customer facing programs including trade show participation, posters and presentations to showcase the solutions for commercial needs, and attending scientific conferences that publish the research data from the SeqLL platform.

5. Expanding visibility in segment verticals with email campaigns, segment organization participation, and by creating integrated training and education programs as a part of services and instrument sales process.

6. Research collaborations with key opinion leaders (KOLs) to address critical, high potential needs and publish the findings in the peer-reviewed scientific journals.

   SeqLL believes this approach maximizes value to customers and shareholders by supporting the largest possible number of customers in each vertical segment:

   - Those choosing to outsource important aspects of drug research and development

   - Those choosing to outsource until it is financially beneficial to internalize the capability

- Those requiring access to proven and experienced infrastructure to meet surge or unexpected demand from market influences — direction changes, mergers or acquisition of pipeline candidates.

Customers

Our customer base is focused on academic research, biomarker discovery, and diagnostic product development. These customers over the years have produced scientific achievements through collaborative research efforts.

The versatility of the technology is demonstrated by our broad base of users that currently span research institutions, commercial laboratories, genome centers, clinical laboratories, government and academic institutions, sequencing service providers, and pharmaceutical companies. The majority of our current customers are early adopters of genomics technology including tSMS. A significant portion of the funding for these developing technologies has historically come from research grants provided by government agencies and non-profit research centers. We often collaborate with customers to drive innovation in the field of genomic sciences through grant funded research activities.

Manufacturing

We have the capability to manufacture all sequencing consumables and instrumentation at the SeqLL facility. We believe that by manufacturing all system components internally results in greater trade secret protection for our proprietary formulations and mechanics, a higher degree of customer satisfaction in our services business, and lower production costs. In the future, we may outsource some of the non-proprietary reagents and basic instrumentation sub-assemblies for parallel inventory production ramp-ups. Relationships to various contract manufacturing organizations have already been established and we believe several are prepared to provide these services once production demand exceeds internal capacities.

Our current manufacturing staff at SeqLL is comprised of 1 engineer and 2 technicians who each have more than 10 years of experience in the tSMS product line. Although currently small in size, the manufacturing team has tremendous experience in the tSMS platform and has the ability to adapt to future needs on both the hardware and consumable sides. In addition, the group has a wealth of knowledge in FDA product clearance and working in an FDA regulated environment. The team can take credit for having built each commercially available tSMS instrument since its origin in 2006, totaling 27 instruments.

We are planning on establishing a controlled manufacturing process and environment. We plan to implement ISO standards, Five Sigma, and lean techniques. We plan on creating work cells for efficiency and material control for both consumables and instrumentation. Implementation of quality assurance in manufacturing documentation and processes is our top priority as we continue the path towards releasing a clinical grade tSMS sequencer and securing FDA clearance.

The current facilities are adequate and have additional room to expand to meet our manufacturing needs for at least the next two years. Beyond that, we may need to lease additional space in the future to incorporate additional manufacturing lab, test, and assembly capabilities.

Research and Development

Our research and development efforts focus on maintaining our advantage in single molecule sequencing. These efforts leverage our team’s involvement and continuing development of the tSMS technology for over a decade. The tSMS technology blends a number of scientific disciplines, namely optics, micro-fluidics, biochemistry and molecular biology, systems engineering, and bioinformatics. Over the years we have continuously established strong relationships with technology leaders and leading academic centers which augments and complements our internal research and development efforts.

Some of our research and development accomplishments include:

- Production of a second generation tSMS sequencer in benchtop form-factor;
- Optimized sample preparation, flowcell, and reagent tSMS processes;
- Innovated machine learning based on image analysis algorithms;

- Co-authored multiple publications in scientific journals; and
- Received multiple NIH grant awards for technology development

We plan to continue our investment in research and development to enhance the performance and expand the application base of our current products, and introduce additional products based on our technology. In addition, our engineering team will continue their focus on increasing instrument component and system reliability, reducing costs, and implementing additional system flexibility and versatility through the enhancement of existing products and development of new products.

Intellectual Property

Developing and maintaining a strong intellectual property position is an important element of our business. We maintain the intellectual property through a combination of licenses, patent protection and trade secrets.

We have sought, and will continue to seek, patent protection for our technology, for improvements to our technology, as well as for any of our other technologies where we believe such protection will be advantageous. In 2013, as part of the Helicos bankruptcy proceedings, we entered into two non-exclusive license agreements:

License Agreement by and between us and Helicos Biosciences Corporation dated March 15, 2013 ("Helicos License").

We have entered and fully paid for a non-exclusive, royalty free license agreement to license, for the life of such patents, over 60 patents covering all areas of our technology, including design, methods and chemistry from Helicos. As part of the Helicos bankruptcy proceedings, Fluidigm obtained the rights to this patent portfolio. The license may be terminated by Fluidigm in the event we sub-license or assign any of the intellectual to a third party. In addition, Fluidigm has a right to terminate the license in the event Daniel Jones, our Chief Executive Officer, fails to continue to work full time for us or if we fail to use reasonable care in the investigation, testing or solicitation of government approvals with respect to the intellectual property. In addition, the license will automatically terminate in the event we dissolve, cease to conduct business, file a petition for bankruptcy, assign all of our assets to a receiver or trustee or in the event we have an involuntary bankruptcy petition initiated against us that is not dismissed within sixty days. This license is provided to us on an "as is" basis only and without any representations or warranty, express or implied, regarding the intellectual property and the use thereof. This patent portfolio is expected to expire 2021 through 2028.

Sub-License Agreement between us and Helicos Biosciences Corporation dated March 15, 2013

As part of the Helicos bankruptcy proceeding, Arizona Science and Technology Enterprises LLC ("AZCT") agreed that Helicos could sub-license the license agreement between Helicos and AZCT to us with respect to 10 patents owned by AZCT for the life of such patents. The sub-license is non-exclusive and fully-paid. The sub-license may be terminated by AZCT in the event we sub-license or assign any of the patents to a third party or if we fail to use reasonable care in the investigation, testing or solicitation of government approvals with respect to the patents. In addition, the sub-license will automatically terminate in the event we dissolve, cease to conduct business, file a petition for bankruptcy, assign all of our assets to a receiver or trustee or in the event we have an involuntary bankruptcy petition initiated against us that is not dismissed within sixty days.

As of February 20, 2019, we own 1 pending U.S. patent application. Our issued and pending patents cover various aspects of our sequencing technology, and we expect to continue to file new patent applications to protect the improvements to our technologies.

We have trademarked the Company name (SeqLL) and design logo, as well as the phrases "tSMS," and "Sequence the Lower Limit." We protect trade secrets, know-how, copyrights, and trademarks, as well as continuing technological innovation and licensing opportunities to develop and maintain our competitive position. 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.

Employees

As of April 12, 2019, we had 10 full-time and 7 part-time employees. None of our employees are represented by a collective bargaining agreement, and we have never experienced any work stoppage. We believe we have good relations with our employees.

Properties and Facilities

We lease approximately 11,000 square feet of combined office, laboratory and manufacturing space in Woburn, Massachusetts for our headquarters and operations. We also lease bench space and key equipment at a chemistry incubator facility located in Woburn, MA. We anticipate leasing additional space in the Boston, MA biotech corridor as our needs grow.

Legal Proceedings

From time to time we may be involved in various disputes and litigation matters that arise in the ordinary course of business. We are currently not a party to any material legal proceedings.

Corporation Information

We were incorporated in Delaware on April 3, 2014. Our principal executive offices are located at 317 New Boston Street, Suite 210, Woburn, Massachusetts 01801, and our telephone number is (781) 460-6016. Our corporate website address is www.seqll.com. The information contained on or that can be accessed through our website is not incorporated by reference into this prospectus.

MANAGEMENT

Executive Officers and Directors

The following table provides information regarding our key employees and directors as of April 17, 2019:

Name	Age	Position(s)
Executive Officers		
Daniel Jones	39	President, Chief Executive Officer and Director
John W. Kennedy	62	Chief Financial Officer and Secretary
Key Employees		
Erik Volke	39	Director of Operations
Abhijeet Shinde	38	Director of Engineering
Non-Employee Directors		
William C. St. Laurent	54	Chairman and Director
Douglas Miscoll	58	Director
David Pfeffer	60	Director

Executive Officers

Daniel Jones has been our co-founder, President, and a member of our Board of Directors since our inception. He has served as Chief Executive Officer since May 2018. Prior to becoming our CEO, he was President from inception to May 2018. Mr. Jones has over 15 years of biotechnology industry experience, including 12 plus years in single molecule research. Prior to founding SeqLL, Mr. Jones held various positions at Helicos Biosciences, a publicly traded biotechnology tools company. During his career at Helicos Biosciences, his responsibilities included applications development, instrument prototyping and validation, customer support, and bioinformatics analysis, as well as sales and operations. In 2008, Mr. Jones ran the first ever direct RNA sequencing experiments while at Helicos. From December 2003 to March 2007, Mr. Jones worked at U.S. Genomics in the Methods Development group and on development of their Trilogy 2020 Single Molecule Analyzer and Direct miRNA assays. From December 2002 to December 2003, Mr. Jones worked at EXACT Sciences on their ColoGuard assay, a non-invasive, now FDA-approved molecular diagnostic for colorectal cancer. Mr. Jones has authored or co-authored 4 publications and is named on multiple patents or patent applications. He holds a Bachelor of Science degree from Trinity College and has studied Biotechnology and Bioinformatics at Brandeis University and the University of Massachusetts.

We believe Mr. Jones' experience in the pharmaceutical industry as well as his extensive understanding of our business, operations, and strategy qualifies him to serve on our board of directors.

John W. Kennedy has served as our Chief Financial Officer and Secretary since August 2018. Previously, Mr. Kennedy served as a business consultant to us from February 2017 to August 2018. Mr. Kennedy has 34 years of experience in management, consulting, and investment banking. From January 1994 to July 2018 Mr. Kennedy ran Kennedy Partners Corp., a boutique merchant banking company where he has assisted numerous companies as their investment banker and CFO raising hundreds of millions of growth capital and completing over a dozen mergers & acquisitions, including several years as the FINRA Managing Principal for two US Broker-Dealers of Brazilian banks operating in the US, Banco FonteCindam SA and Banco Fibra SA. In prior years Mr. Kennedy worked at The Board of Governors of the Federal Reserve System, Peat, Marwick, Mitchell & Co., Morgan Stanley & Co., and D.H. Blair Investment Banking & Co., where he served as Managing Director of Investment Banking conducting private equity investments, private equity placements and IPOs for a wide variety of emerging growth companies. He currently has a FINRA Series 82 license. He graduated from Union College with a B.A. in Economics and has an M.B.A. in Finance and International Business Management from New York University.

Key Employees

Erik Volke has served as our Director of Operations since August 2018 and comes with over 16 years of experience in Manufacturing Engineering, Operations management, Quality Assurance, as well as R&D in the fields of biotechnology, medical device instrumentation and FDA ISO 13485 environments. Prior to joining SeqLL, Erik worked in manufacturing engineering, quality, and production management roles during his time at Affymetrix, Helicos Biosciences, Life Technologies, and T2BioSystems. Starting with the company in 2015 as a Senior Manufacturing Engineer, Mr. Volke has managed hardware and consumable manufacturing, service operations, and facilities at SeqLL. He was also instrumental in the design of the second generation tSMS sequencer. He served as the product quality manager while at T2 BioSystems where Mr. Volke managed product quality and documentation to the FDA clearance of that company product from 2011 to 2015. Prior to T2, he managed a team of instrument and consumable manufacturing technicians at Life Technologies to release an Open Array platform to market from 2010 to 2011 and transitioned the facility to a high-volume site. Mr. Volke worked at Helicos BioSciences from 2007 to 2010 where he managed instrument production and continuous hardware improvement. He has a combined 7 years of experience with SeqLL tSMS working at SeqLL as well as Helicos. Prior to Helicos, his experience includes design transfer from engineering to production and product lifecycle management at Affymetrix from 2002 to 2007. Mr. Volke holds a Bachelor of Science degree in Manufacturing Engineering Technology from Wentworth Institute of Technology, Boston MA, 2002.

Abhijeet Shinde, M.S. has served as our Director of Engineering since June 2014. Mr. Shinde's expertise includes system integration, prototyping, motion control, troubleshooting and diagnosis, FDA design control management, and project management. Prior to joining SeqLL, Mr. Shinde worked as Senior Control Systems Engineer at Ivenix, a medical device company developing smart infusion pump, from 2012 to 2014 where he managed control system algorithm design and development for accurate flow control, fault identification and alarm system. From 2010 to 2012, Mr. Shinde worked as Systems Engineering Manager at Cambridge Endo to develop FDA approved surgical instruments for laparoscopic surgery to provide low cost alternative to expensive surgical robots. Mr. Shinde worked at Helicos Biosciences as a Staff Mechanical Engineer and Senior Engineer from 2006 to 2010 where he led system engineering efforts from concept to commercialization phase of the world's first single molecule sequencer 'Heliscope'. He gained in-depth knowledge of single molecule sequencing instrumentation by developing and servicing a variety of sequencers at Helicos Biosciences. Prior to joining Helicos, from 2004 to 2006 Mr. Shinde designed and prototyped a 6-axis robot for automated repair of thin walled aerospace structures using laser deposition technology at H&R Technologies. Mr. Shinde has authored and co-authored multiple peer-reviewed journal publications in the field of control systems and structural health monitoring. Mr. Shinde holds a Master of Science in Mechanical Engineering from Worcester Polytechnic Institute, MA and a Bachelor of Science in Mechanical Engineering from the University of Pune, India.

Non-Employee Directors

William C. St. Laurent has served as a member of our Board of Directors since our incorporation in 2014 and its Chairman since September 2015. Mr. St. Laurent has over thirty years of experience in leading companies, developing and executing strategy, including building businesses from the ground up. Mr. St. Laurent is currently chief executive officer of St. Laurent Properties, LLC in Orlando, Florida, and Vancouver, Washington; president of Consolidated Forest Products, Inc., in Perry, Florida, American Mulch & Groundcover, LLC in Central Florida and The St. Laurent Institute in Vancouver, Washington, where he is also a co-founder and Board member since 2005. Mr. St. Laurent is also co-founder and the chairman of the board of True Bearing Diagnostics in Washington, D.C., a biotech research company. He is also the founder of St. Laurent Land & Cattle Co., Inc., based in Eagle Point, Oregon, which raises beef with no hormones or antibiotics and has 125 acres of vineyards in development. Mr. St. Laurent serves on the board of People's Bank of Commerce of Oregon. Mr. St. Laurent served as vice chairman of Western Bank from 1989 until the bank sold in 1996. Mr. St. Laurent is heavily involved in community and charitable work and is currently Treasurer for the Florida Lacrosse Association and Braveheart Lacrosse Club, where he occasionally coaches youth lacrosse, as well as a board member for the St. Laurent Family Foundation and the City of Vancouver Aviation Advisory Committee. Mr. St. Laurent earned his Bachelor of Science degree from Cornell University.

We believe Mr. St. Laurent's experience in the industry and executive management experience qualifies him to serve on our board of directors.

Douglas Miscoll has served as a member of our Board of Directors since October 2015. Mr. Miscoll is the Managing Member of Ravello Precision Partners, which was founded in 2015, and manages a hedge fund focused on genomic biology companies. Mr. Miscoll founded Ravello Partners LLC, an affiliate of the Ravello Precision Partners, and a registered investment adviser, in 2010. Ravello Partners currently manages discretionary portfolios for families and small institutions focused on biotechnology and genomic medicine companies. From 1999 until 2009, Mr. Miscoll was a Managing Director at Newlight Management, where he was responsible for managing all aspects of two private equity funds and a hedge fund with total assets over $135 million focused on technology, media and communications companies. He originated and directed the firm's public market investment activities. Previously, from 1994 to 1995, he was a Managing Director of Northgate Ventures, a venture capital fund focused on early stage technology companies. Mr. Miscoll was a founding member of the management team that created K-III Communications, a leveraged build-up in the publishing and information services industries sponsored by Kohlberg Kravis Roberts & Co. Mr. Miscoll received an MBA from Georgetown University, a Graduate Certificate from Templeton College, Oxford University, and a BA from Santa Clara University.

We believe Mr. Miscoll's executive management experience qualifies him to serve on our board of directors.

David Pfeffer has served as a member of our Board of Directors since September 2018. Mr. Pfeffer has over 30 years of experience in diverse roles in financial services; leading companies, developing and executing strategy, building businesses up from the ground floor and driving innovation to grow in today's ultra-competitive and dynamic global economy. Mr. Pfeffer is currently the EVP and CFO of Oppenheimer Funds, a $250 billion asset manager, since 2004. From 2000 to 2004, Mr. Pfeffer worked as Institutional CFO at Citigroup Asset Management. During 1984 to 2000, Mr. Pfeffer served as CFO and Controller at JP Morgan where he gained significant international experience serving as CFO of JPM Brazil for 5 years in São Paulo and supporting JPM's global business during his 16-year tenure. Since 2009 Mr. Pfeffer has been an Independent Director and the Audit Committee Chairman at ICI Mutual Insurance Co. Mr. Pfeffer is a Certified Public Accountant and Chartered Global Management Accountant and has his FINRA Series 99 Operations Professional license. He graduated Cum Laude from the University of Delaware with a B.S. in Accounting.

We believe Mr. Pfeffer's experience in corporate governance and capital markets qualifies him to serve on our board of directors.

Family Relationships

There are no family relationships between or among any of our directors or executive officers. There are no family relationships among our officers and directors and those of our subsidiaries and affiliated companies.

Board Composition and Classified Board Structure

Our business and affairs are organized under the direction of our board of directors, which currently consists of four members. Upon the closing of this offering, our board of directors will be divided into three classes: Class I (William C. St. Laurent), Class II (David Pfeffer) and Class III (Douglas Miscoll, Daniel Jones). The term of office of the initial Class I directors will expire at the first annual meeting of the stockholders following the closing of this offering, the term of office of the initial Class II directors will expire at the second annual meeting of the stockholders following the closing of this offering, and the term of office of the initial Class III directors will expire at the third annual meeting of the stockholders following the closing of this offering. At each annual meeting of stockholders, commencing with the first annual meeting of stockholders following the closing of this offering, each of the successors elected to replace the directors of a class whose term shall have expired at such annual meeting shall be elected to hold office for a three-year term and until the third annual meeting next succeeding his or her election and until his or her respective successor shall have been duly elected and qualified or until his or her death, resignation, or removal.

The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling and direction to our management. Our board of directors meets on a regular basis. Upon completion of this offering, our bylaws will be amended and restated to provide that the authorized number of directors may be changed only by resolution of the board of directors. We have no formal policy regarding board diversity. Our priority in selection of board members is identification of members who will further the interests of our stockholders through his or her established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business and understanding of the competitive landscape.

Director Independence

The Nasdaq Marketplace Rules require a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the Nasdaq Marketplace Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent and that audit committee members also satisfy independence criteria set forth in Rule 10A-3 under the Exchange Act.

Under Rule 5605(a)(2) of the Nasdaq Marketplace Rules, a director will only qualify as an "independent director" if, in the opinion of our board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3 of the Exchange Act, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors, or any other board committee, accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries.

Our board of directors has reviewed the composition of our board of directors and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that each of William St. Laurent, Doug Miscoll and David Pfeffer is an "independent director" as defined under Rule 5605(a)(2) of the Nasdaq Marketplace Rules. Our board of directors also determined that the directors who will each serve on our audit committee, our compensation committee, and our nominating and corporate governance committee following this offering, satisfy the independence standards for such committees established by the SEC and the Nasdaq Marketplace Rules, as applicable. In making such determinations, our board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining independence, including the beneficial ownership of our capital stock by each non-employee director.

Board Committees

Our board of directors will establish three standing committees — audit, compensation, and nominating and corporate governance — each of which will operate under a charter approved by our board of directors. Prior to the completion of this offering, copies of each committee's charter will be posted on the Investor Relations section of our website, which is located at www.seqll.com. Each committee has the composition and responsibilities described below. Our board of directors may from time to time establish other committees.

Audit Committee

Our audit committee consists of David Pfeffer who is the chair of the committee and Douglas Miscoll. Our board of directors has determined that each of the members of our audit committee satisfies the Nasdaq Marketplace Rules and SEC independence requirements. The functions of this committee include, among other things:

- evaluating the performance, independence and qualifications of our independent auditors and determining whether to retain our existing independent auditors or engage new independent auditors;

- reviewing and approving the engagement of our independent auditors to perform audit services and any permissible non-audit services;
- reviewing our annual and quarterly financial statements and reports, including the disclosures contained under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations," and discussing the statements and reports with our independent auditors and management;
- reviewing with our independent auditors and management significant issues that arise regarding accounting principles and financial statement presentation and matters concerning the scope, adequacy and effectiveness of our financial controls;
- reviewing our major financial risk exposures, including the guidelines and policies to govern the process by which risk assessment and risk management is implemented; and
- reviewing and evaluating on an annual basis the performance of the audit committee, including compliance of the audit committee with its charter.

Our board of directors has determined that David Pfeffer qualifies as an "audit committee financial expert" within the meaning of applicable SEC regulations and meets the financial sophistication requirements of the Nasdaq Marketplace Rules. In making this determination, our board of directors has considered Mr. Pfeffer's extensive financial experience and business background. Both our independent registered public accounting firm and management periodically will meet privately with our audit committee.

Compensation Committee

Our compensation committee will consist of Doug Miscoll and David Pfeffer. Our Board has determined that each of the members of our compensation committee satisfies the Nasdaq Marketplace Rules independence requirements. The functions of this committee include, among other things:

- reviewing, modifying and approving (or if it deems appropriate, making recommendations to the full board of directors regarding) our overall compensation strategy and policies;
- reviewing and approving the compensation, the performance goals and objectives relevant to the compensation, and other terms of employment of our executive officers;
- reviewing and approving (or if it deems appropriate, making recommendations to the full board of directors regarding) the equity incentive plans, compensation plans and similar programs advisable for us, as well as modifying, amending or terminating existing plans and programs;
- reviewing and approving the terms of any employment agreements, severance arrangements, change in control protections and any other compensatory arrangements for our executive officers;
- reviewing with management and approving our disclosures under the caption "Compensation Discussion and Analysis" in our periodic reports or proxy statements to be filed with the SEC; and
- preparing the report that the SEC requires in our annual proxy statement.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee will consist of Douglas Miscoll, who is the chair of the committee, and David Pfeffer. Our board of directors has determined that each of the members of this committee satisfies the Nasdaq Marketplace Rules independence requirements. The functions of this committee include, among other things:

- identifying, reviewing and evaluating candidates to serve on our board of directors consistent with criteria approved by our board of directors;

- evaluating director performance on our board of directors and applicable committees of our board of directors and determining whether continued service on our board of directors is appropriate;
- evaluating, nominating and recommending individuals for membership on our board of directors; and
- evaluating nominations by stockholders of candidates for election to our board of directors.

Scientific Advisory Board

Our executive team is supported by our Scientific Advisory Board. The members of our Scientific Advisory Board provide scientific advice regarding our tSMS technology to our executive team. Each member of our Scientific Advisory Board was selected based on experience with our tSMS technology and familiarity with our tSMS sequencers. The members of our Scientific Advisory Board are not required to provide any particular services to us and are not currently compensated.

Bradley Bernstein, MD, Ph.D. — Professor of Pathology, Harvard Medical School, HHMI Investigator, Sr. Associate Member of the Broad Institute. SeqLL collaborator and co-inventor on patent application describing single molecule ChIP-Seq application on the HeliScope.

Patrice Milos, Ph.D. — Healthcare Executive, formerly CEO, Claritas Genomics, formerly CSO, Helicos. Dr. Milos was responsible for scientific strategy and applications development at Helicos from 2007 to 2012. She is a vocal advocate of the technology and advises SeqLL on scientific and business strategy.

Philip Kapranov, Ph.D. — Professor and Director, Institute of Genomics at HuaQiao University, Xiamen, China. Former Helicos employee and long-time collaborator of SeqLL, Dr. Kapranov's laboratory purchased the first SeqLL HeliScope in China, which his lab uses for their work on non-coding RNA.

Tim McCaffrey, MD, Ph.D. — Professor of Medicine and Director, Division of Genomic Medicine, George Washington University. Dr. McCaffrey is a close collaborator of SeqLL and has used the tSMS platform to identify several panels of RNA transcripts that are highly predictive biomarkers in the fields of cardiovascular disease, infection and inflammation. He has co-founded a company to commercialize diagnostics based on those discoveries.

Claes Wahlstaedt, MD, Ph.D. — Director, Center for Therapeutic Innovation and Assoc. Dean for Therapeutic Innovation, University of Miami Health System. Dr. Wahlstaedt is an internationally recognized leader in the discovery of novel drug therapies with a long-standing interest in genomics and epigenetics. Dr. Wahlstaedt advises SeqLL on applications development and scientific strategy.

Code of Business Conduct and Ethics

Prior to the closing of this offering, our board of directors will adopt a written code of conduct that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. We intend to post on our website a current copy of the code and all disclosures that are required by law or Nasdaq Marketplace Rules concerning any amendments to, or waivers from, any provision of the code.

Board Leadership Structure

Our board of directors is free to select the Chairman of the board of directors and a Chief Executive Officer in a manner that it considers to be in the best interests of our company at the time of selection. Currently, Daniel Jones serves as our Chief Executive Officer and William St. Laurent serves as Chairman of the board of directors. We currently believe that this leadership structure is in our best interests and strikes an appropriate balance between our Chief Executive Officer's responsibility for the day-to-day management of our company and the Chairman of the board of directors' responsibility to provide oversight. As our founder, Mr. St. Laurent provides a strong link between management and our board of directors, which we believe promotes clear communication and enhances strategic planning and implementation of corporate strategies. Our board has not designated a lead independent director.

Our board of directors, as a whole and also at the committee level, plays an active role overseeing the overall management of our risks. Our Audit Committee reviews risks related to financial and operational items with our management and our independent registered public accounting firm. Our board of directors is in regular contact with our Chief Executive Officer and Chief Financial Officer, who report directly to our board of directors and who supervise day-to-day risk management.

Role of Board in Risk Oversight Process

We face a number of risks, including those described under the caption “Risk Factors” contained elsewhere in this prospectus. Our board of directors believes that risk management is an important part of establishing, updating and executing on our business strategy. Our board of directors has oversight responsibility relating to risks that could affect our corporate strategy, business objectives, compliance, operations, and the financial condition and performance. Our board of directors focuses its oversight on the most significant risks facing us and, on our processes, to identify, prioritize, assess, manage and mitigate those risks. Our board of directors receives regular reports from members of our senior management on areas of material risk to us, including strategic, operational, financial, legal and regulatory risks. While our board of directors has an oversight role, management is principally tasked with direct responsibility for management and assessment of risks and the implementation of processes and controls to mitigate their effects on us.

EXECUTIVE COMPENSATION

The following table sets forth total compensation paid to our named executive officers for the years ended December 31, 2018 and 2017. Individuals we refer to as our "named executive officers" include our Chief Executive Officers and our Chief Financial Officer whose salary and bonus for services rendered in all capacities exceeded $100,000 during the fiscal year ended December 31, 2018. Currently, we do not have employment agreements with any of our executive officers, although we may enter into employment agreements with our officers in the future.

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)	Non-Equity Incentive Plan Compensation ($)	Nonqualified Deferred Compensation Earnings ($)	All Other Compensation ($)	Total ($)
Daniel Jones	2018	140,000	0	438,900	0	0	0	578,900
Chief Executive Officer[1]	2017	140,000	0	0	0	0	0	140,000
Elizabeth Reczek	2018	62,000	0	0	0	0	0	62,000
Former Chief Executive Officer[2]	2017	155,000	0	0	0	0	0	155,000
John W. Kennedy	2018	74,000	0	332,500	0	0	0	406,500
Chief Financial Officer[3]	2017	60,000	0	0	0	0	0	60,000

(1) Mr. Jones became our CEO on May 28, 2018. Prior to May 28, 2018, he was our President.

(2) Ms. Reczek served as our CEO in 2017 and up to May 17, 2018 when she resigned from the Company.

(3) Mr. Kennedy served as a business consultant to us until August 2017 and not as our Chief Financial Officer.

Through December 31, 2018, we paid $276,000 in salary to our executive officers. The Company also granted 508,106 stock options to various executives, directors and key employees to purchase 508,106 shares of the Company's common stock at an exercise price equal to $2.46 per share.

SeqLL Inc. 2014 Equity Incentive Plan

Our board of directors and our stockholders originally approved our 2014 Equity Incentive Plan, or the 2014 Plan, in April 2014. Our 2014 Plan allows for the grant of equity-based awards to our and our affiliates' officers, employees, directors and key persons. We are amending and restating our 2014 Plan in connection with this offering. Our board of directors approved the amendment and restatement of our 2014 Plan on September 28, 2018 and our stockholders approved it on April 15, 2018. Our stockholders are expected to approve the amendment and restatement of our 2014 Plan prior to effectiveness of this registration statement. The description below is of our 2014 Plan as amended and restated, except as otherwise noted.

Purpose

The purpose of our 2014 Plan, as amended and restated, is to encourage and enable our and our affiliates' officers, employees, directors and other key persons (including consultants and prospective employees) upon whose judgment, initiative and efforts we largely depend for the successful conduct of our business to acquire a proprietary interest in our company.

Eligibility

Participants in our 2014 Plan may include full or part-time officers, employees, directors and key persons (including advisors and consultants) of our company or our affiliates who are selected to receive awards from time to time by the administrator in its sole discretion.

Administration

Our 2014 Plan is administered by our compensation committee, or, if at any time our compensation committee is not in existence, our board of directors. In addition, to the extent applicable law permits, our board of directors may delegate any of its authority under our 2014 Plan to another committee or one or more officers, and our compensation committee may delegate any of its authority hereunder to a sub-committee or to one or more officers, except that no such delegation is permitted with respect to awards made to individuals who are subject to Section 16 of the Exchange Act unless the delegation is to another committee consisting entirely of "nonemployee directors" within the meaning of Rule 16b-3 of the Exchange Act. Subject to the provisions of our 2014 Plan, the administrator has the power to administer the plan, including but not limited to, the power to select the eligible officers, employees, directors, and key employees to whom awards are granted; to determine the number of shares to be covered by each award; to determine the terms and conditions of any award and to amend any outstanding award.

Authorized Shares

As of April 10, 2019, prior to the amendment and restatement of our 2014 Plan in connection with this offering, a total of 1,081,081 shares of our common stock were authorized for issuance under our 2014 Plan. Of those shares, 916,208 were subject to outstanding awards and 164,873 shares remained available for future awards under our 2014 Plan. Following the amendment and restatement of our 2014 Plan, there will be a total of 1,891,891 shares reserved for future awards. All of the authorized shares may be issued pursuant to incentive stock options. The shares available for issuance may be authorized but unissued shares or shares reacquired by us and held in its treasury. The share reserve under our 2014 Plan is depleted by the maximum number of shares, if any, that may be issuable under an award as determined at the time of grant. However, awards that may only be settled in cash (determined at the time of grant) do not deplete the share reserve.

If (1) an award lapses, expires, terminates or is cancelled without the issuance of shares, (2) it is determined during or at the conclusion of the term of an award that all or some portion of the shares with respect to which the award was granted will not be issuable on the basis that the conditions for such issuance will not be satisfied, (3) shares are forfeited under an award, (4) shares are issued under any award and we subsequently reacquire them pursuant to rights reserved upon the issuance, (5) an award or a portion thereof is settled in cash, or shares are withheld by us in payment of the exercise price or withholding taxes of an award, then such shares will be recredited to the reserve and may again be used for new awards. However, shares recredited to reserve pursuant to clause (4) in the preceding sentence may not be issued pursuant to incentive stock options.

Adjustments to Shares

If, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in our capital stock, the outstanding shares are increased or decreased or are exchanged for a different number or kind of shares or other securities of our company, or additional shares or new or different shares or other securities of our company or other non-cash assets are distributed with respect to such shares or other securities, or, if, as a result of any merger, consolidation or sale of all or substantially all of our assets, the outstanding shares are converted into or exchanged for a different number or kind of securities of our company or any successor entity (or a parent or subsidiary thereof), the administrator will make an appropriate or proportionate adjustment in (1) the maximum number of shares reserved for issuance under our 2014 Plan; (2) the number and kind of shares or other securities subject to any then outstanding awards under our 2014 Plan; and (3) the exercise price for each share subject to any then outstanding stock options. The administrator also may adjust the number of shares subject to outstanding awards and the exercise price and the terms of outstanding awards to take into consideration material changes in accounting practices or principles, extraordinary dividends, acquisitions or dispositions of stock or property or any other event if it is determined by the administrator that such adjustment is appropriate to avoid distortion in the operation of our 2014 Plan, subject to the limitations described in our 2014 Plan.

Effect of a Sale Event

Unless otherwise provided in an award or other agreement, upon a "sale event," if the successor or surviving corporation (or parent thereof) so agrees, then, without the consent of any holder of an award (or other person with rights in an award), some or all outstanding awards may be assumed, or replaced with the same type of award with similar terms and conditions, subject to adjustments described in our 2014 Plan, by the successor or surviving corporation (or parent thereof) in the sale event. A "sale event" is generally defined for this purpose as (1) any person becoming the beneficial owner of 50% or more of the combined voting power of our then-outstanding securities (subject to exceptions and other limitations scribed in our 2014 Plan), (2) our stockholders approving a plan of complete liquidation or dissolution of our company, (3) the consummation of (a) an agreement for the sale or disposition of all or substantially all of our assets (other than to certain excluded persons), (b) a merger, consolidation or reorganization of our company with or involving any other corporation (subject to specified exceptions), or (4) a change in the majority of our board of directors that is not approved by a supermajority of the existing board. More detailed descriptions and additional information on limitations relating to each of these sale events is are in our 2014 Plan.

If, after a sale event in which the awards are assumed or replaced, the award holder experiences a termination event as a result of a termination of service without cause, due to death or disability, or as a result of a resignation for good reason, in each case within 24 months after a sale event, then the award holder's awards will be vested in full or deemed earned in full (assuming target performance, if applicable).

To the extent the awards are not assumed or replaced in the sale event, then, (1) each option will become immediately and fully vested and, unless the administrator determines otherwise, will be canceled on the sale event in exchange for a cash payment equal to the excess of the price paid in the sale event over the exercise price of the option, and all options with an exercise price lower than the price paid in the sale event will be canceled for no consideration, (2) restricted stock and restricted stock units (not subject to performance goals) will be vested in full and settled, along with any accompanying dividend equivalent units, and (3) all awards subject to performance goals with outstanding performance periods will be canceled in exchange for a cash payment equal to the amount that would have been due under the award if performance had been satisfied at the better of target or the performance trend through the sale event.

Solely with respect to awards granted on and after the completion of this offering, and except as otherwise expressly provided in any agreement with an award holder, if the receipt of any payment by an award holder under the circumstances described above would result in the payment by the award holder of any excise tax provided for in Section 280G and Section 4999 of the Code, then the amount of such payment shall be reduced to the extent required to prevent the imposition of such excise tax.

Limit on Director Awards

The maximum value of awards granted during a single fiscal year to any non-employee director, taken together with any cash fees paid during the fiscal year to the non-employee director in respect of the director's service as a member of our board of directors during such year (including service as a member or chair of any committees of the board), shall not exceed $800,000 in total value for the first year of service and $400,000 for future years of service (calculating the value of any such awards based on the grant date fair value of such awards for financial reporting purposes).

Types of Awards

Awards under our 2014 Plan may consist of incentive stock options, non-qualified stock options, restricted stock awards, unrestricted stock awards, restricted stock units, or any combination of those awards. Some provisions of our 2014 Plan relating to these award types are summarized below.

Stock Options

A stock option is an award entitling the recipient to acquire shares, at such exercise price as determined by the administrator (which may not be lower than the fair market value of the underlying shares on the date of grant) and subject to such restrictions and conditions as the administrator may determine at the time of grant. Conditions may be based on continuing employment (or other service relationship) and/or achievement of pre-established performance goals and objectives. Stock options granted under our 2014

Plan may be either non-qualified stock options or incentive stock options. Incentive stock options may be granted only to our employees or employees of our subsidiaries, and must certain requirements specified in our 2014 Plan and the Code. Stock options will become exercisable at such time or times as determined by the administrator at or after the grant date and set forth in the stock option agreement. The administrator may at any time accelerate the exercisability of all or any portion of any stock option.

Restricted Stock

A restricted stock award is a grant (or sale, at such purchase price as determined by the administrator) of shares that are subject to such restrictions and conditions as the administrator may determine at the time of grant. Conditions may be based on continuing employment (or other service relationship) or achievement of pre-established performance goals and objectives. The terms and conditions of each such agreement shall be determined by the administrator.

Unrestricted Stock

The administrator may grant (or sell at par value or such higher purchase price determined by the administrator) unrestricted shares, in respect of past services, in exchange for cancellation of a compensation right, as a bonus, or any other valid consideration, or in lieu of any cash compensation due to such individual.

Restricted Stock Units and Dividend Equivalent Units

The administrator may grant restricted stock units representing the right to receive a future payment of cash, the amount of which is determined by reference to our shares, shares or a combination of cash and shares. The administrator will determine all terms and conditions of an award of restricted stock units, including but not limited to the number granted, in what form they will be settled, whether performance goals must be achieved for the restricted stock units to be earned, the length of any vesting or performance period and the date of payment, and whether the grant will include dividend equivalent units. The administrator will determine all terms and conditions of an award of dividend equivalent units, including whether payment will be made in cash or shares. However, no dividend equivalent units may be paid with respect to restricted stock units that are not earned or that do not become vested.

Termination of Employment or Service

Except as otherwise provided in any award agreement or an award holder's employment offer letter, severance letter or services agreement, or as determined by administrator at the time of the award holder's termination of employment or service:

- If the termination is for cause, the award holder will forfeit all outstanding awards immediately upon termination and will not be permitted to exercise any stock options following termination.
- If the termination is due to the award holder's death or disability (when the award holder could not have been terminated for cause), the award holder will forfeit the unvested portion of any award, and any vested stock options will remain exercisable until the earlier of the original stock option expiration date or 12 months from the date of termination.
- If the termination was for any reason other than cause, death or disability (when the award holder could not have been terminated for cause), the award holder will forfeit the unvested portion of any award, and any vested stock options will remain exercisable until the earlier of the original stock option expiration date or three months from the date of termination.

Term of Plan and Plan Amendments

Our 2014 Plan, as amended and restated, will become effective upon the completion of this offering. Our 2014 Plan will continue until all shares reserved for issuance under our 2014 Plan have been issued, or, if earlier, until such time as the administrator terminates our 2014 Plan pursuant as described below. No incentive stock options may be granted after the ten (10) year anniversary of the date of stockholder approval of the amendment and restatement of our 2014 Plan unless the stockholders have approved an extension.

Our board of directors may, at any time, amend, terminate or discontinue our 2014 Plan, except that our stockholders must approve any amendment to the extent approval is required by Section 16 of the Exchange Act, the Code, the listing requirements of any principal securities exchange or market on which our shares are then traded or any other applicable law. In addition, stockholders must approve any amendment to our 2014 Plan that would materially increase the number of shares reserved (except as permitted by the adjustment provisions of our 2014 Plan) or that would diminish the protections afforded by the anti-repricing provisions of our 2014 Plan.

Any termination of our 2014 Plan will not affect the authority of our board of directors and the administrator to administer outstanding awards or affect the rights of award holders with respect to awards previously granted to them.

Award Amendments, Cancellation and Disgorgement

Subject to the anti-repricing and other requirements of our 2014 Plan, the administrator may modify, amend or cancel any award. However, except as otherwise provided in our 2014 Plan or an award agreement, consent form the award holder is required to any amendment that materially diminishes the holder's rights under the award. Our 2014 Plan includes exceptions to the consent requirement for actions necessary to comply with applicable law or the listing requirements of securities exchanges, to preserve favorable accounting or tax treatment of any award for our company or to the extent the administrator determines that an action does not materially and adversely affect the value of the award or is in the best interest of the affected award holder or any other person who has an interest in the award.

The administrator has full power and authority to terminate or cause an award holder to forfeit an award, and require an award holder to disgorge to us, any gains attributable to the award, if the award holder engages in any action constituting, as determined by the administrator in its discretion, cause for termination, or a breach of any award agreement or any other agreement between the award holder and us or one of our affiliates concerning noncompetition, non-solicitation, confidentiality, trade secrets, intellectual property, non-disparagement or similar obligations. In addition, any awards granted pursuant to our 2014 Plan, and any shares issued or cash paid pursuant to an award, will be subject to any recoupment or clawback policy that is adopted by us from time to time, or any recoupment or similar requirement otherwise made applicable to us by law, regulation or listing standards.

Repricing and Backdating Prohibited

Notwithstanding anything in our 2014 Plan to the contrary, and except for the adjustments provided for in our 2014 Plan, neither the administrator nor any other person may (1) amend the terms of outstanding stock options to reduce the exercise or grant price of such outstanding stock options; (2) cancel outstanding stock options in exchange for stock options with an exercise or grant price that is less than the exercise or grant price of the original stock options; or (3) cancel outstanding stock options with an exercise or grant price above the current fair market value of a share in exchange for cash or other securities. In addition, the administrator may not make a grant of a stock option with a grant date that is effective prior to the date the administrator takes action to approve the award.

Director Compensation

We did not provide any compensation to our non-employee directors for their service on our board of directors during 2017. Our named executive officers who also served on our board of directors did not receive any additional compensation for their service on our board of directors during 2017. For service on our board, beginning September 6, 2018, our directors initially receive stock options for 16,216 shares of common stock and $1,000 per month as compensation.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information concerning the ownership of our common stock as of April 19, 2019, with respect to: (i) each person, or group of affiliated persons, known to us to be the beneficial owner of more than five percent of our common stock; (ii) each of our directors; (iii) each of our named executive officers; and (iv) all of our current directors and executive officers as a group.

Applicable percentage ownership is based on 8,403,775 shares of common stock outstanding as of April 19, 2019 and reflects the issuance of 3,538,913 shares of common stock issuable upon the conversion of all shares of our outstanding preferred stock and the conversion of our outstanding convertible notes and promissory note consented by the holder of such notes immediately prior to our initial public offering. The percentage of beneficial ownership after this offering assumes the sale and issuance of shares of common stock in this offering and no exercise by the underwriters of their option to purchase additional shares of common stock.

We have determined beneficial ownership in accordance with the rules of the SEC. These rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting or investment power with respect to such securities. In addition, pursuant to such rules, we deemed outstanding shares of common stock subject to options or warrants held by that person that are currently exercisable or exercisable within 60 days of April 19, 2019. We did not deem such shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the beneficial owners named in the table below have sole voting and investment power with respect to all shares of our common stock that they beneficially own, subject to applicable community property laws.

	Beneficial Ownership Prior to Offering		Beneficial Ownership After the Offering	
Name and Address of Beneficial Owner[1]	Number of Shares	Percentage	Number of Shares	Percentage
5% Stockholders, Executive Officers and Directors				
Daniel Jones[2]	2,545,134	26.66%	2,545,134	25.63%
John W. Kennedy[3]	135,135	1.58%	135,135	1.37%
Douglas Miscoll[4]	58,445	*	58,448	*
William C. St. Laurent[5]	6,173,096	66.86%	6,173,096	62.93%
David Pfeffer[6]	16,216	*	16,216	*
All directors and executive officers as a group (5 persons)	8,928,026	95.60%	8,778,736	89.93%

* Represents beneficial ownership of less than 1%.

(1) Except as otherwise noted below, the address for each person or entity listed is c/o SeqLL Inc., 317 New Boston Street, Suite 210, Woburn, Massachusetts 01801.

(2) Includes stock options for 178,378 shares of common stock issued to Mr. Jones pursuant to our 2014 Plan, 97,297 of such shares vested on November 2, 2018 and 81,081 of such shares shall vest upon our initial public offering.

(3) Includes stock options for 135,135 shares of common stock issued to Mr. Kennedy pursuant to our 2014 Plan, of which 67,567 vested on November 2, 2018, and 67,568 shall vest upon our initial public offering.

(4) Includes stock options for 16,216 shares of common stock issued to Mr. Miscoll upon becoming a member of our Board of Directors, which vested on November 2, 2018.

(5) Includes 1,008,687 shares of common stock and 17,459 warrants issued to St. Laurent Investments, LLC and $1,265,710 in notes issued in 2018 to 2019 that convert at the consummation of the offering into 408,291 shares of common stock. Mr. William C. St. Laurent is the Managing Partner of St. Laurent Investments, LLC. Also, includes 486,486 and 60,506 warrants issued by the Company on September 30, 2018 to St. Laurent Investments, LLC, 5,211 warrants issued to Mr. St. William C.

Laurent, individually, and 592,824 shares and warrants issued to William C. St. Laurent Descendants' Trust, and 592,824 shares and warrants issued to Georges C. St. Laurent III Descendants' Trust. Also, includes 2,984,592 shares owned by Mr. St. Laurent's family members over which Mr. St. Laurent has voting power and control over. Also, includes 16,216 stock options issued to Mr. William C. St. Laurent upon becoming a member of our Board of Directors, which vested on November 2, 2018. The address of St. Laurent Investments, LLC is 120 NE 136 Avenue, Suite 200, Vancouver, WA 98684.

(6) Includes options for 16,216 shares of common stock issued to Mr. Pfeffer upon becoming a member of our Board of Directors, which vested on November 2, 2018.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

We do not have a formal written policy for the review and approval of transactions with related parties. Our unwritten policy with regard to transactions with related persons is that all material transactions are to be reviewed by the entire Board for any possible conflicts of interest. The Board is responsible for review, approval, or ratification of "related-person transactions" involving the Company and related persons.

With the exception of the transactions set forth below, the Company was not a party to any transaction (in which the amount involved exceeded the lesser of $120,000 or 1% of the average of our assets for the last two fiscal years) in which a director, executive officer, holder of more than five percent of our common stock, or any member of the immediate family of any such person has or will have a direct or indirect material interest and no such transactions are currently proposed.

True Bearing Diagnostics, Inc.

True Bearing Diagnostics Inc. ("True Bearing") is a related party to William C. St. Laurent, the Chairman of our Board of Directors. At December 31, 2018, the Company had receivables due from the True Bearing in the amount of $128,280, for sequencing services and materials provided to the related party in the ordinary course of business.

For the year ended December 31, 2018 and 2017, the Company had revenues from sales of sequencing kits, sequencing services and materials sales to True Bearing of $128,280 and $0, respectively.

Stonemill Center

Stonemill Center and Floral Finance are related parties to William C. St. Laurent, the Chairman of our Board of Directors. For the year ended December 31, 2018, the Company incurred expenses payable to the Stonemill Center for reimbursement of legal fees amounting to $16,627, expenses payable to Floral Finance for reimbursement of legal fees amounting to $9,849.

St. Laurent Realty, Inc.

St. Laurent Realty, Inc. is a related party to William C. St. Laurent, the Chairman of our Board of Directors. William C. St. Laurent, is also the Chief Executive Officer of St. Laurent Realty, Inc. St. Laurent Realty, Inc. and the Company share certain administrative expenses (administrative and accounting services).

For the years ended December 31, 2018 and 2017, the Company incurred expenses payable to St. Laurent Realty, Inc. for services related to clerical and accounting amounting to $27,913 and $250, respectively.

At December 31, 2018 and 2017, the Company had outstanding payables of $27,913 and $250 to St. Laurent Realty, Inc.

St. Laurent Institute, Inc.

St. Laurent Institute, Inc. is a related party to William C. St. Laurent, the Chairman of our Board of Directors. William C. St. Laurent, is also the President of St. Laurent Institute, Inc. The Company provides sequencing services to St. Laurent Institute, Inc. in the ordinary course of business.

For the years ended December 31, 2018 and 2017, the Company had revenues from sales of sequencing kits, sequencing services and equipment sales to the St. Laurent Institute of $0 and $25,500, respectively.

For the years ended December 31, 2018 and 2017, the Company incurred expenses payable to the St. Laurent Institute for services related to sequence analysis amounting to $0 and $113,954, respectively. At December 31, 2018 and 2017, the Company had outstanding payables of $113,954 in each year to the St. Laurent Institute.

St. Laurent Investments, LLC

On March 6, 2018, St. Laurent Investments, LLC loaned the Company $100,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,930 shares of common stock.

On March 22, 2018, St. Laurent Investments, LLC loaned the Company $50,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 965 shares of common stock.

On April 3, 2018, St. Laurent Investments, LLC loaned the Company $50,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 965 shares of common stock.

On May 1, 2018, St. Laurent Investments, LLC loaned the Company $125,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 2,412 shares of common stock.

On May 16, 2018, St. Laurent Investments, LLC loaned the Company $70,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,351 shares of common stock.

On May 29, 2018, St. Laurent Investments, LLC loaned the Company $125,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 2,412 shares of common stock.

On June 12, 2018, St. Laurent Investments, LLC loaned the Company $80,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,544 shares of common stock.

On June 27, 2018, St. Laurent Investments, LLC loaned the Company $80,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,544 shares of common stock.

On July 10, 2018, St. Laurent Investments, LLC loaned the Company $90,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,737 shares of common stock.

On July 26, 2018, St. Laurent Investments, LLC loaned the Company $60,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,158 shares of common stock.

On September 5, 2018, St. Laurent Investments, LLC loaned the Company $100,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,930 shares of common stock.

On September 20, 2018, St. Laurent Investments, LLC loaned the Company $100,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,930 shares of common stock.

On September 30, 2018, the Company entered into an Exchange Agreement with St. Laurent Investments, LLC (the “SLT”) to exchange the outstanding the SLT’s promissory notes in the amount of $3,135,000 for (i) 1,866,071 shares of the Company’s Series A-2 Preferred Stock; (ii) warrants equal to 60,506 shares of common stock expiring after September 30, 2023 and at an exercise price of $3.10; (iii) warrants equal to 486,486 shares of common stock expiring after September 30, 2023 and at an exercise price of $3.10 and (iv) a new promissory note in the amount of $360,710 for the accrued interest for the converted SLT notes as of September 30, 2018, which is convertible at the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company’s next equity financing.

On October 17, 2018, St. Laurent Investments, LLC loaned the Company $60,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,157 shares of common stock.

On November 2, 2018, St. Laurent Investments, LLC loaned the Company $50,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 964 shares of common stock.

On November 9, 2018, St. Laurent Investments, LLC loaned the Company $50,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 964 shares of common stock.

On November 16, 2018, St. Laurent Investments, LLC loaned the Company $50,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 964 shares of common stock.

On November 29, 2018, St. Laurent Investments, LLC loaned the Company $50,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 964 shares of common stock.

On December 21, 2018, St. Laurent Investments, LLC loaned the Company $50,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 964 shares of common stock.

On December 27, 2018, St. Laurent Investments, LLC loaned the Company $50,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 964 shares of common stock.

On January 31, 2019, St. Laurent Investments, LLC loaned the Company $100,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,930 shares of common stock.

On February 7, 2019, St. Laurent Investments, LLC loaned the Company $85,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,640 shares of common stock.

On February 21, 2019, St. Laurent Investments, LLC loaned the Company $85,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,640 shares of common stock.

On March 20, 2019, St. Laurent Investments, LLC loaned the Company $175,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 3,378 shares of common stock.

On April 8, 2019, St. Laurent Investments, LLC loaned the Company $100,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,930 shares of common stock.

Genomic Diagnostic Technologies, Inc.

On April 11, 2014, the Company issued Genomic Diagnostic Technologies, Inc. (“GDT”) 2,376,486 common shares in exchange for GDT’s interest in SeqLL, LLC.

On May 30, 2014, GDT invested $500,000 for 844,594 shares of Series A-1 Preferred Stock.

On January 6, 2015, GDT transferred 1,188,243 shares of common stock to Georges C. St. Laurent III, and another 1,188,243 shares of common stock to Wendy St. Laurent.

On December 31, 2018 GDT transferred 422,297 shares of common stock to Georges C. St. Laurent III Descendants’ Trust.

On December 31, 2018 GDT transferred 422,297 shares of common stock to William C. St. Laurent Descendants’ Trust.

St. Laurent Family Investments

On May 30, 2014, Georges C. St. Laurent III invested $10,000 for 16,891 shares of Series A-1 Preferred Stock.

On May 30, 2014, Georges C. St. Laurent Jr. invested $500,000 for 844,594 shares of Series A-1 Preferred Stock.

On May 30, 2014, Eleanor St. Laurent invested $100,000 for 168,918 shares of Series A-1 Preferred Stock.

William C. St. Laurent Descendants Trust

On February 19, 2016, William C. St. Laurent Descendants Trust invested $500,000 for 160,875 shares of Series A-2 Preferred Stock.

On December 31, 2018 William C. St. Laurent Descendants' Trust received 422,297 shares of common stock from Genomic Diagnostic Technologies, Inc.

Georges C. St. Laurent III Descendants Trust

On February 19, 2016, Georges C. St. Laurent III Descendants Trust invested $500,000 for 160,875 shares of Series A-2 Preferred Stock. On December 31, 2018 Georges C. St. Laurent Descendants' Trust received 781,250 shares of common stock from Genomic Diagnostic Technologies, Inc.

Georges C. St. Laurent Trust UAB

On September 12, 2016, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $500,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 9,652 shares of common stock.

On September 14, 2016, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $500,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 9,652 shares of common stock.

On January 25, 2017, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $225,000 in one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 4,343 shares of common stock.

On January 30, 2017, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $25,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 482 shares of common stock.

On February 24, 2017, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $250,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 4,826 shares of common stock.

On May 4, 2017, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $200,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 3,860 shares of common stock.

On June 14, 2017, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $70,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,351 shares of common stock.

On October 13, 2017, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $1,000,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 19,304 shares of common stock.

On November 28, 2017, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $100,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,930 shares of common stock.

On December 12, 2017, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $100,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,930 shares of common stock.

On January 9, 2018, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $200,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 3,861 shares of common stock.

On February 6, 2018, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $100,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,930 shares of common stock.

On March 19, 2018, Georges C. St. Laurent Trust UAB (transferred to St. Laurent Investments, LLC on March 21, 2018) loaned the Company $105,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 2,027 shares of common stock.

John W. Kennedy

On September 15, 2018, we executed an agreement to guarantee amounts owed by John W. Kennedy, our Chief Financial Officer, on a lease for Mr. Kennedy's housing. The annual rental amount due on the lease is $32,400 and is paid by Mr. Kennedy.

William C. St. Laurent

On May 5, 2017, William C. St. Laurent, the chairman of our Board of Directors, loaned the Company $200,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 3,860 shares of common stock.

On June 14, 2017, William C. St. Laurent loaned the Company $70,000 in a one-year convertible promissory note yielding 10% per annum and was issued a warrant to purchase 1,351 shares of common stock.

DESCRIPTION OF CAPITAL STOCK

The following is a summary of the rights of our common stock and preferred stock, certain provisions of our amended and restated certificate of incorporation and our amended and restated bylaws as they will be in effect upon completion of this offering and applicable law. This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation and amended and restated bylaws, copies of which have been or will be filed as exhibits to the registration statement of which this prospectus is a part.

Authorized Capital Stock

Immediately prior to the completion of this offering and upon the filing of our amended and restated certificate of incorporation, our authorized capital stock will consist of 80,000,000 shares of common stock, par value $0.00001 per share, and 20,000,000 shares of undesignated preferred stock, par value $0.00001 per share.

Common Stock

As the date of this prospectus, and after giving effect to the conversion of all of our outstanding preferred stock, convertible notes and promissory note into common stock in connection with this offering, there will be 8,403,775 shares of common stock issued and outstanding and there were 22 holders of record of our common stock, 596,396 shares of common stock issuable upon exercise of outstanding warrants, and 916,208 shares of common stock issuable upon exercise of outstanding stock options.

Under the terms of our amended and restated certificate of incorporation, holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders, including the election of directors, and do not have cumulative voting rights. The holders of outstanding shares of common stock are entitled to receive dividends out of assets or funds legally available for the payment of dividends at such times and in such amounts as our board of directors from time to time may determine. Our common stock is not entitled to pre-emptive rights and is not subject to conversion or redemption. Upon liquidation, dissolution or winding up of our company, the assets legally available for distribution to stockholders are distributable ratably among the holders of our common stock after payment of liquidation preferences, if any, on any outstanding payment of other claims of creditors. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

As the date of this prospectus, there are 3,125,000 outstanding shares of Series A-1 preferred stock, which will be converted into 1,689,183 shares of common stock immediately prior to the closing of this offering, and 2,666,665 outstanding shares of Series A-2 preferred stock, which will be converted into 1,441,439 shares of common stock immediately prior to the closing of this offering.

Upon the closing of this offering, we will have no shares of our preferred stock outstanding, but our board of directors will be authorized, without further action by the stockholders, to create and issue one or more series of preferred stock and to fix the rights, preferences and privileges thereof. Among other rights, our board of directors may determine, without further vote or action by our stockholders:

- the number of shares constituting the series and the distinctive designation of the series;
- the dividend rate on the shares of the series, whether dividends will be cumulative, and if so, from which date or dates, and the relative rights of priority, if any, of payment of dividends on shares of the series;
- whether the series will have voting rights in addition to the voting rights provided by law and, if so, the terms of the voting rights;
- whether the series will have conversion privileges and, if so, the terms and conditions of conversion;

- whether or not the shares of the series will be redeemable or exchangeable, and, if so, the dates, terms and conditions of redemption or exchange, as the case may be;
- whether the series will have a sinking fund for the redemption or purchase of shares of that series, and, if so, the terms and amount of the sinking fund; and
- the rights of the shares of the series in the event of our voluntary or involuntary liquidation, dissolution or winding up and the relative rights or priority, if any, of payment of shares of the series.

Although we presently have no plans to issue any shares of preferred stock upon completion of the offering, any future issuance of shares of preferred stock, or the issuance of rights to purchase preferred shares, could, among other things, decrease the amount of earnings and assets available for distribution to the holders of common stock or could adversely affect the rights and powers, including voting rights, of the holders of the common stock.

Options

As of April 19, 2019, we had outstanding options to purchase an aggregate 916,208 shares of our common stock, with a weighted-average exercise price of $1.77 per share all of which are issued under the 2014 Plan.

Warrants

On February 19, 2016, we issued a warrant to purchase up to 9,652 shares of our common stock to William C. St. Laurent Descendants Trust at an exercise price of $3.10 per share, which is exercisable until February 19, 2021. In addition, on February 19, 2016, we issued a warrant to purchase up to 9,652 shares of our common stock to Georges C. St. Laurent III Descendants Trust at an exercise price of $3.10 per share, which is exercisable through February 19, 2021

On March 25, 2016, we issued a warrant to purchase up to 1,447 shares of our common stock to Templeside Holdings Ltd. at an exercise price of $3.10 per share, which is exercisable through March 25, 2021. In addition, on March 25, 2016, we issued a warrant to purchase up to 2,895 shares of our common stock to Tara Partners Fund LLC at an exercise price of $3.10 per share, which is exercisable through March 25, 2021.

On September 12, 2016, we issued a warrant to purchase up to 9,652 shares of our common stock to the Georges C. St. Laurent Trust, which is exercisable through September 12, 2021. On September 14, 2016, we issued a warrant to purchase up to 9,652 shares of our common stock to the Georges C. St. Laurent Trust, which is exercisable through September 14, 2021.

On January 27, 2017, we issued a warrant to purchase up to 4,343 shares of our common stock to the Georges C. St. Laurent Trust, which is exercisable through January 27, 2022. On February 22, 2017, we issued a warrant to purchase up to 482 shares of our common stock to the Georges C. St. Laurent Trust, which is exercisable through February 22, 2022. On February 27, 2017, we issued a warrant to purchase up to 4,825 shares of our common stock to the Georges C. St. Laurent Trust, which is exercisable through February 27, 2022. On May 4, 2017, we issued a warrant to purchase up to 3,860 shares of our common stock to William C. St. Laurent, which warrants are exercisable through May 4, 2022. On June 14, 2017, we issued a warrant to purchase up to 1,351 shares of our common stock to William C. St. Laurent, which warrants are exercisable through June 14, 2022. On November 27, 2017, we issued a warrant to purchase up to 1,930 shares of our common stock to the Georges C. St. Laurent Trust, which is exercisable through November 27, 2022, and on December 13, 2017, we issued a warrant to purchase up to 1,930 shares of our common stock to the Georges C. St. Laurent Trust, which is exercisable through December 13, 2022.

From January 9, 2018 to September 19, 2018 we received proceeds aggregating $1,435,000 pursuant to the issuance of convertible promissory notes (the “Notes”), and five-year warrants for the purchase of 27,699 shares of our common stock (the “Warrants”). The Notes bear interest at 10% per annum. On September 30, 2018, the Notes along with all outstanding prior senior convertible notes from the same lender totaling $3,135,000 were exchanged for (i) 1,866,071 shares of Series A-2 Preferred Stock; (ii) a warrant for 486,486 shares of common stock exercisable at $2.16 per share, which is exercisable through

September 30, 2023; (iii) a warrant for 60,506 shares of common stock exercisable at $3.10 per share, which is exercisable through September 30, 2023 and (iv) a 1-year promissory note bearing 10% interest per annum and payable in cash upon a public offering in the amount of $360,710 for the accrued interest under the Notes as of September 30, 2018, convertible at the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing.

On July 27, 2018, we issued a warrant to purchase up to 3,088 shares of our common stock to Terranova Capital Partners, Inc. at an exercise price of $3.10 per share, which is exercisable through July 27, 2023.

On October 17, 2018, we issued a warrant to purchase up to 1,157 shares of our common stock to the St. Laurent Investments, LLC at an exercise price equal to the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through October 16, 2023.

On November 2, 2018, we issued a warrant to purchase up to 964 shares of our common stock to the St. Laurent Investments, LLC at an exercise price equal to the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through November 1, 2023.

On November 9, 2018, we issued a warrant to purchase up to 964 shares of our common stock to the St. Laurent Investments, LLC at an exercise price equal to the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through November 8, 2023.

On November 16, 2018, we issued a warrant to purchase up to 964 shares of our common stock to the St. Laurent Investments, LLC at an exercise price equal to the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through November 15, 2023.

On November 29, 2018, we issued a warrant to purchase up to 964 shares of our common stock to the St. Laurent Investments, LLC at an exercise price equal to the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through November 28, 2023.

On December 21, 2018, we issued a warrant to purchase up to 964 shares of our common stock to the St. Laurent Investments, LLC at an exercise price equal to the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through December 20, 2023.

On December 27, 2018, we issued a warrant to purchase up to 964 shares of our common stock to the St. Laurent Investments, LLC at an exercise price equal to the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through December 26, 2023.

On January 31, 2019, we issued a warrant to purchase up to 1,930 shares of our common stock to St. Laurent Investments, LLC at an exercise price the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through January 30, 2024.

On February 7, 2019, we issued a warrant to purchase up to 1,640 shares of our common stock to St. Laurent Investments, LLC at an exercise price the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through February 6, 2024.

On February 21, 2019, we issued a warrant to purchase up to 1,640 shares of our common stock to St. Laurent Investments, LLC at an exercise price the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through February 20, 2024.

On March 20, 2019, we issued a warrant to purchase up to 3,378 shares of our common stock to St. Laurent Investments, LLC at an exercise price the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through March 19, 2024.

On April 8, 2019, we issued a warrant to purchase up to 1,930 shares of our common stock to St. Laurent Investments, LLC at an exercise price the lower of $3.10 per share or 80% of the share price paid by the purchasers of equity securities offered in the Company's next equity financing, which is exercisable through April 7, 2024.

Underwriters' Warrants

We are registering the offer and sale of Underwriters' Warrants (and the underlying shares of common stock) to purchase up to a total of 67,500 shares of our common stock. See "Underwriting" beginning on page 96 for a description of the Underwriters' Warrants.

Registration Rights

Demand Registration Rights

Pursuant to our amended and restated investors' rights agreement, beginning 180 days after of our initial public offering and subject to certain terms of limitation, parties to such agreement holding at least 50% of the registrable securities, (as defined therein as (i) common stock issuable or issued upon conversion of our preferred stock; (ii) common stock issued or issuable upon conversion and/or exercise of any other securities of the Company acquired by investors after the date hereof; (iii) common stock issuable or issued upon the exercise of certain warrants to purchase shares of our common stock issued to certain investors and (iv) any common stock issued as a dividend or other distribution with respect to, or in exchange for or in replacement of the shares referenced in clauses (i) and (ii) above) can request that we file a registration statement with respect to not less than $5 million in value of registrable securities. Under specified circumstances, we also have the right to defer filing of a requested registration statement for a period of 90 days.

Pursuant to the Underwriters' Warrants, the underwriters can request that we file up to two registration statements registering all or a portion of the common stock issued or issuable upon exercise of such Underwriters' Warrant. Under specified circumstances, we have the right to defer filing of a requested registration statement for a period of not more than 60 days, which right may not be exercised more than once during any period of 12 consecutive months. These registration rights are subject to additional conditions and limitations, including that the underwriters are required to pay all of the expenses for the second demand registration.

Form S-3 Demand Registration Rights

Pursuant to our amended and restated investors' rights agreement, subject to certain terms of limitation, parties to such agreement holding at least 20% of the registrable securities have the right to demand that we file additional registration statements, including a shelf registration statement, for such holders on Form S-3. Under specified circumstances, we also have the right to defer filing of a requested registration statement for a period of 90 days.

Piggyback Registration Rights

Pursuant to our amended and restated investors' rights agreement and Underwriters' Warrants, whenever we propose to file a registration statement under the Securities Act, other than with respect to a registration related to employee benefit or similar plans, or corporate reorganizations or other transactions under Rule 145 under the Securities Act, the holders of registrable securities are entitled to notice of the registration and have the right to include their registrable securities in such registration. The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement, including the right to exclude all such stockholder shares from this offering.

Expenses of Registration

We are required to pay expenses except for underwriting discounts, selling commissions, and stock transfer taxes relating to any Form S-3 or piggyback registration by the holders of registerable securities under the amended and restated investors' rights agreement, subject to certain limitations.

Expiration of Registration Rights

The registration rights described under our amended and restated investors' rights agreement will expire for each holder at such time (i) the company liquidates, (ii) Rule 144 or another similar exemption under the Securities Act is available for the sale of such investors' shares without limitation during a three-month period without registration, and (iii) the second anniversary of this offering.

Limitation of Liability and Indemnification Matters

Our amended and restated certificate of incorporation, which will become effective upon the completion of this offering, will limit the liability of our directors for monetary damages for breach of their fiduciary duties, except for liability that cannot be eliminated under the DGCL. Consequently, our directors will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except liability for any of the following:

- any breach of their duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases, or redemptions as provided in Section 174 of the DGCL; or
- any transaction from which the director derived an improper personal benefit.

Our amended and restated bylaws will also provide that we will indemnify our directors and executive officers and may indemnify our other officers and employees and other agents to the fullest extent permitted by law. Our amended and restated bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in this capacity, regardless of whether our amended and restated bylaws would permit indemnification. We plan on obtaining directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. A stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or persons controlling us pursuant to the foregoing provisions, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and may be unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

Indemnification of Officers and Directors

Our amended and restated certificate of incorporation and amended and restated bylaws, which will become effective in connection with the completion of this offering, will provide that we will indemnify each of our directors and officers to the fullest extent permitted by the DGCL.

To the best of our knowledge, during the past two fiscal years, other than as set forth above, there were no material transactions, or series of similar transactions, or any currently proposed transactions, or series of similar transactions, to which we were or are to be a party, in which the amount involved exceeds the lesser of (A) $120,000 or (B) one percent of our average total assets at year-end for the last two completed

fiscal years, and in which any director or executive officer, or any security holder who is known by us to own of record or beneficially more than 5% of any class of our common stock, or any member of the immediate family of any of the foregoing persons, has an interest (other than compensation to our officers and directors in the ordinary course of business).

Delaware Anti-Takeover Law and Provisions of Our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Some provisions of Delaware law, our amended and restated certificate of incorporation and our amended and restated bylaws contain provisions that could make the following transactions more difficult: an acquisition of us by means of a tender offer; an acquisition of us by means of a proxy contest or otherwise; or the removal of our incumbent officers and directors. It is possible that these provisions could make it more difficult to accomplish or could deter transactions that stockholders may otherwise consider to be in their best interest or in our best interests, including transactions which provide for payment of a premium over the market price for our shares.

These provisions, summarized below, are intended to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors. We believe that the benefits of the increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging these proposals because negotiation of these proposals could result in an improvement of their terms.

Delaware Anti-Takeover Law

We are subject to Section 203 of the DGCL. Section 203 generally prohibits a publicly traded corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding specified shares; or
- at or subsequent to the date of the transaction, the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 ⅔% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a "business combination" to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, lease, exchange, mortgage, pledge, transfer or other disposition of 10% or more of the assets of the corporation to or with the interested stockholder;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an "interested stockholder" as any person that is:

- the owner of 15% or more of the outstanding voting stock of the corporation;

- an affiliate or associate of the corporation who was the owner of 15% or more of the outstanding voting stock of the corporation at any time within three years immediately prior to the relevant date; or
- the affiliates and associates of the above.

Under specific circumstances, Section 203 makes it more difficult for an "interested stockholder" to effect various business combinations with a corporation for a three-year period, although the stockholders may, by adopting an amendment to the corporation's certificate of incorporation or bylaws, elect not to be governed by this section, effective 12 months after adoption.

Our amended and restated certificate of incorporation and amended and restated bylaws do not exclude us from the restrictions of Section 203. We anticipate that the provisions of Section 203 might encourage companies interested in acquiring us to negotiate in advance with our board of directors since the stockholder approval requirement would be avoided if a majority of the directors then in office approve either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder.

Undesignated Preferred Stock

The ability of our board of directors, without action by the stockholders, to issue up to 20,000,000 shares of undesignated preferred stock with voting or other rights or preferences as designated by our board of directors could impede the success of any attempt to change control of us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of our company.

Stockholder Meetings

Our amended and restated bylaws provide that a special meeting of stockholders may be called only by our chairman of the board, chief executive officer or president, or by a resolution adopted by a majority of our board of directors.

Requirements for Advance Notification of Stockholder Nominations and Proposals

Our amended and restated bylaws establish advance notice procedures with respect to stockholder proposals to be brought before a stockholder meeting and the nomination of candidates for election as directors, other than nominations made by or at the direction of the board of directors or a committee of the board of directors.

Elimination of Stockholder Action by Written Consent

Our amended and restated certificate of incorporation and amended and restated bylaws do not allow stockholders to act by written consent without a meeting.

Removal of Directors

Our amended and restated certificate of incorporation provides that no member of our board of directors may be removed from office by our stockholders except for cause and, in addition to any other vote required by law, upon the approval of not less than two-thirds of the total voting power of all of our outstanding voting stock then entitled to vote in the election of directors.

Staggered Board

Our amended and restated certificate of incorporation provides for a staggered board of directors whereby directors serve staggered three-year terms.

Stockholders Not Entitled to Cumulative Voting

Our amended and restated certificate of incorporation does not permit stockholders to cumulate their votes in the election of directors. Accordingly, the holders of a majority of the outstanding shares of our common stock entitled to vote in any election of directors can elect all of the directors standing for election, if they choose, other than any directors that holders of our preferred stock may be entitled to elect.

Choice of Forum

Our amended and restated certificate of incorporation provides that, unless we consent in writing to the selection of an alternative form, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for: (1) any derivative action or proceeding brought on our behalf; (2) any action asserting a claim of breach of a fiduciary duty or other wrongdoing by any of our directors, officers, employees or agents to us or our stockholders; (3) any action asserting a claim against us arising pursuant to any provision of the DGCL or our amended and restated certificate of incorporation or amended and restated bylaws; (4) any action to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or amended and restated bylaws; or (5) any action asserting a claim governed by the internal affairs doctrine. Our amended and restated certificate of incorporation also provides that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of and to have consented to this choice of forum provision. It is possible that a court of law could rule that the choice of forum provision contained in our amended and restated certificate of incorporation is inapplicable or unenforceable if it is challenged in a proceeding or otherwise. This choice of forum provision has important consequences to our stockholders.

Amendment Provisions

The amendment of any of the above provisions, except for the provision making it possible for our board of directors to issue preferred stock, would require approval by holders of at least 66⅔ of the total voting power of all of our outstanding voting stock.

The provisions of the DGCL, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in the composition of our board and management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Elimination of Monetary Liability for Officers and Directors

Our amended and restated certificate of incorporation incorporates certain provisions permitted under the DGCL relating to the liability of directors. The provisions eliminate a director's liability for monetary damages for a breach of fiduciary duty. Our amended and restated certificate of incorporation also contains provisions to indemnify the directors, officers, employees or other agents to the fullest extent permitted by the DGCL. We believe that these provisions will assist us in attracting and retaining qualified individuals to serve as directors.

Exchange Listing

We intend to apply to list our common stock on the Nasdaq Capital Market under the trading symbol "SQL."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is VStock Transfer, LLC. The transfer agent and registrar's address is 18 Lafayette Place, Woodmere, NY 11598.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of our common stock in the public market following this offering, or the possibility of such sales occurring, could cause the prevailing market price of our common stock to fall and impede our ability to raise capital through an offering of equity securities.

Upon the completion of this offering, we will have a total of 9,753,775 shares of common stock outstanding based upon 8,403,775 shares outstanding as of the date of this prospectus, assuming an initial public offering price of $5.90 per share and assuming no exercise by the underwriters' option to purchase additional shares of common stock, and no exercise or conversion of outstanding options, Warrants or Notes to purchase shares of common stock prior to completion of this offering. All of the shares sold in this offering will be freely tradable unless held by our "affiliates," as defined in Rule 144 under the Securities Act. Shares purchased by affiliates may generally only be sold pursuant to an effective registration statement under the Securities Act or in compliance with Rule 144.

Lock-Up Agreements

We and all of our executive officers, directors and other certain holders of our outstanding common stock have entered into "lock-up" agreements. As a result of these contractual restrictions and the provisions of Rules 144 and 701 promulgated under the Securities Act, 9,916,379 common stock shares (including shares issued upon exercise of warrants and options) will be eligible for sale in the public market upon expiration of lock-up agreements 180 days after the date of this prospectus, subject, in certain circumstances to the volume, manner of sale and other limitations under Rule 144 and Rule 701, assuming the exercise of all outstanding options and warrants. The representatives may, in their discretion, release any of the securities subject to these lock-up agreements at any time.

Rule 144

In general, under Rule 144, as amended, a person (or persons whose shares are required to be aggregated) who is not deemed to have been an affiliate of ours at any time during the three months preceding a sale, and who has beneficially owned our common stock for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell those shares, subject only to the availability of current public information about us and provided that we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. If such person has held our shares for at least one year, such person can resell such shares under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company and current public information requirements.

A person (or persons whose shares are aggregated) who is deemed to be an affiliate of ours and who has beneficially owned restricted securities within the meaning of Rule 144 for at least six months would be entitled to sell within any three-month period a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding, which will equal approximately 97,508 shares immediately after this offering (assuming no exercise of the underwriters' option to purchase additional shares and no exercise or conversion of outstanding options, Notes or Warrants); or
- the average weekly trading volume of our common stock on the Nasdaq during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Such sales are also subject to certain manner of sale provisions, notice requirements and the availability of current public information about us.

Rule 701

Under Rule 701 under the Securities Act, shares of our common stock acquired upon the exercise of currently outstanding options or pursuant to other rights granted under our stock plan may be resold, by:

- persons, other than affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject only to the manner-of-sale provisions of Rule 144; and
- our affiliates, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, subject to the manner-of-sale and volume limitations, current public information and filing requirements of Rule 144, in each case, without compliance with the six-month holding period requirement of Rule 144.

Notwithstanding the foregoing, our Rule 701 shares held by our executive officers and directors are subject to lock-up agreements as described above and in the section titled “Underwriting” and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Form S-8 Registration Statement

We intend to file a registration statement on Form S-8 under the Securities Act after the closing of this offering to register the shares of our common stock that are issuable pursuant to our Amended 2014 Plan. The registration statement is expected to be filed and become effective as soon as practicable after the completion of this offering. Accordingly, shares registered under the registration statement will be available for sale in the open market following its effective date, subject to Rule 144 volume limitations applicable to affiliates and the lock-up arrangement described above, if applicable.

Registration Rights

After the closing of this offering, the holders of the Warrants, and Underwriters’ Warrants may convert and exercise their security instrument for shares of our common stock. These holders will be entitled to certain rights with respect to the registration of such shares under the Securities Act. If we register any securities for public sale other than for our initial public offering, these holders will have the right to include their shares in the registration statement. In an underwritten offering, we have agreed to use our best efforts to cause the shares to be included in the underwriting on the same terms and conditions as the securities being sold through any such underwriters.

Pursuant to our amended and restated investors’ rights agreement, subject to certain terms of limitation, parties to such agreement holding at least 20% of the registrable securities have the right to demand that we file additional registration statements, including a shelf registration statement, for such holders on Form S-3. Under specified circumstances, we also have the right to defer filing of a requested registration statement for a period of 90 days.

Pursuant to our amended and restated investors’ rights agreement and Underwriters’ Warrants, whenever we propose to file a registration statement under the Securities Act, other than with respect to a registration related to employee benefit or similar plans, or corporate reorganizations or other transactions under Rule 145 under the Securities Act, the holders of registrable securities are entitled to notice of the registration and have the right to include their registrable securities in such registration. The underwriters of any underwritten offering will have the right to limit the number of shares having registration rights to be included in the registration statement, including the right to exclude all such stockholder shares from this offering.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF OUR COMMON STOCK

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock acquired in this offering by a "non-U.S. holder" (as defined below), 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 United States Internal Revenue Code of 1986, as amended, or 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 income tax consequences different from those set forth below. We have not sought, and do not intend to seek, any ruling from the Internal Revenue Service, or IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court 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 rules, except to the limited extent set forth 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, regulated investment companies, real estate investment trusts or other financial institutions;
- persons subject to the alternative minimum tax or the tax on net investment income;
- tax-exempt organizations;
- pension plans and tax-qualified retirement plans;
- 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;
- persons who hold our common stock as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction;
- persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, property held for investment); or
- persons deemed to sell our common stock under the constructive sale provisions of the Code.

In addition, if a partnership, entity or arrangement classified as a partnership or flow-through entity 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 or other entity. A partner in a partnership or other such entity that will hold our common stock should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock through a partnership or other such entity, as applicable.

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 gift or estate 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, for U.S. federal income tax purposes, is not a partnership or:

- an individual who is a 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, or otherwise treated as such for U.S. federal income tax purposes;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust (1) whose administration is subject to the primary supervision of a U.S. court and that has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (2) that has made a valid election under applicable Treasury Regulations to be treated as a U.S. person.

If you are an individual, you are a resident alien if you are a lawful permanent resident of the U.S. (e.g., a green card holder) and you may, in many cases, be deemed to be a resident alien, as opposed to a nonresident alien, by virtue of being present in the U.S. for at least 31 days in the calendar year and for an aggregate of at least 183 days during a three-year period ending in and including the current calendar year. For these purposes, all the days present in the U.S. in the current year, one-third of the days present in the immediately preceding year, and one-sixth of the days present in the second preceding year are counted. Resident aliens are subject to U.S. federal income tax as if they are U.S. citizens. Such an individual is urged to consult his or her own tax advisor regarding the U.S. federal income tax consequences of the purchase, ownership or disposition of our common stock

Distributions

As described in the section of this prospectus titled "Dividend Policy," we have never declared or paid cash dividends on our common stock, and we do not anticipate paying any dividends on our common stock following the completion of this offering. However, if we do make distributions on our common stock, those payments will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, the excess 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. See "— Gain on Disposition of Common Stock."

Subject to the discussions below on effectively connected income and Foreign Account Tax Compliance Act, or FATCA, withholding, any dividend paid to you generally will be subject to U.S. federal 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 between the United States and your country of residence. In order to receive a reduced treaty rate, you must provide the applicable withholding agent with an IRS Form W-8BEN or 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. federal withholding tax pursuant to an income tax treaty may 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 our common 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 the applicable withholding agent, either directly or through other intermediaries.

Dividends received by you that are treated as effectively connected with your conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, such dividends are attributable to a permanent establishment or fixed base maintained by you in the United States) are generally exempt from the 30% U.S. federal withholding tax, subject to the discussion below on backup withholding and FATCA withholding. In order to obtain this exemption, you must provide the applicable withholding agent with a properly executed IRS Form W-8ECI or other applicable IRS Form W-8properly certifying such exemption. Such effectively connected dividends, although not subject to U.S. federal 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 between the United States and your country of residence. You should consult your tax advisor regarding the tax consequences of the ownership and disposition of our common stock, including any applicable tax treaties that may provide for different rules.

Gain on Disposition of Common Stock

Subject to the discussion below regarding backup withholding and FATCA 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 an applicable income tax treaty so provides, 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 United States real property interest by reason of our status as a "United States real property holding corporation," or USRPHC, for U.S. federal income tax purposes 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 for U.S. federal income tax purposes, 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 interests relative to the fair market value of our U.S. and worldwide real property interests plus 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, your common stock will be treated as U.S. real property interests only if you actually (directly or indirectly) or constructively hold more than five percent of such regularly traded common stock at any time during the shorter of the five-year period preceding your disposition of, or your holding period for, our common stock.

If you are a non-U.S. holder described in the first bullet above, you will be required to pay tax on the gain derived from the sale (net of certain deductions and credits) under regular graduated U.S. federal income tax rates, and a corporate non-U.S. holder described in the first bullet above also 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 subject to tax at 30% (or such lower rate specified by an applicable income tax treaty) on the gain derived from the sale, which gain may be offset by U.S. source capital losses for the year, 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.

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 his or her death will generally be includable in the decedent's gross estate for U.S. federal estate tax purposes. Such stock, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax treaty provides otherwise.

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 will be 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 on or of proceeds from the disposition of our common 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 a properly completed IRS Form W-8BEN or W-8BEN-E or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if the applicable withholding 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 person's 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)

Provisions of the Code commonly referred to as FATCA, Treasury Regulations issued thereunder and official IRS guidance generally impose a U.S. federal withholding tax of 30% on dividends on, and the gross proceeds from a sale or other disposition of our common stock, paid to a "foreign financial institution" (as specially defined under these rules), unless such institution enters into an agreement with the U.S. government to, among other things, withhold on certain payments and to collect and provide to the IRS 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 the gross proceeds from, a sale or other disposition of our common stock paid to a "non-financial foreign entity" (as specially defined under these rules), unless such entity provides the withholding agent with a certification identifying the substantial direct and indirect U.S. owners of the entity, certifies that it does not have any substantial U.S. owners, or otherwise establishes an exemption.

The withholding obligations under FATCA generally apply to dividends on our common stock and under current transition rules are expected to apply to the payment of gross proceeds of a sale or other disposition of our common stock made on or after January 1, 2019. The withholding tax will apply regardless of whether the payment otherwise would be exempt from U.S. nonresident and backup withholding tax, including under the other exemptions described above. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Prospective investors are encouraged to consult with their own tax advisors regarding the application of FATCA withholding to their investment in, and ownership and disposition of, our common stock.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice to investors in their particular circumstances. 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.

UNDERWRITING

WallachBeth Capital, LLC is acting as representative of the several underwriters of the offering, and we have entered into an underwriting agreement on the date of this prospectus, with them as underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters and the underwriters have agreed to purchase from us, at the public offering price per share less the underwriting discounts set forth on the cover page of this prospectus.

The underwriting agreement provides that the underwriters are obligated to purchase all the shares of common stock in the offering if any are purchased, other than those shares covered by the over-allotment option described below. The underwriting agreement also provides that if an underwriter defaults the purchase commitments of non-defaulting underwriters may be increased or the offering may be terminated.

Over-allotment Option

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel including the validity of the shares, and subject to other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officer's certificates and legal opinions. The offering of the shares by the underwriters is also subject to the underwriters' right to reject any order in whole or in part.

We have granted to the underwriters a 45-day option to purchase on a pro rata basis up to 202,500 additional shares (15% of the shares of common stock sold in the offering) at the initial public offering price less the underwriting discounts and commissions. The option may be exercised only to cover any over-allotments of our common stock.

Discounts and Commissions

The underwriters propose to offer the shares of common stock initially at the public offering price on the cover page of this prospectus and to selling group members at that price less a selling concession of $ per share equal to 9% of the public offering price. The underwriters and selling group members may allow a discount of $ per share on sales to other broker/dealers. After the initial public offering the representatives may change the public offering price and concession and discount to broker/dealers.

The following table shows the public offering price, underwriting discount and proceeds, before expenses, to us. The information assumes either no exercise or full exercise by the underwriters of their over-allotment option.

	Per Share	Total Without Over-Allotment Option	Total with Over-Allotment Option
Public offering price	$	$	$
Underwriting discount (9%)	$	$	$
Proceeds, before expenses, to us	$	$	$

We estimate that our out of pocket expenses for this offering (not including any underwriting discounts and commissions) will be approximately $700,000. The underwriters will not confirm sales to any accounts over which they exercise discretionary authority without first receiving a written consent from those accounts.

We will bear all of our fees, disbursements and expenses in connection with this offering. The underwriting agreement, however, provides that in the event the offering is terminated, any advance expense deposits paid to the underwriters will be returned to the extent that offering expenses are not actually incurred in accordance with FINRA Rule 5110(f)(2)(C).

We have agreed to pay the underwriters' non-accountable expenses allowance equal to 1% of the gross proceeds of the public offering of the shares (including shares that we may sell to the underwriters to cover over-allotments). We have also agreed to pay for a certain amount of the underwriters' accountable expenses including actual accountable road show expenses for the offering, the cost associated with the underwriters' use of book-building and compliance software for the offering, reasonable and documented

fees and disbursements of the underwriters' counsel up to an amount of $75,000 (which maximum shall apply solely to such fees and disbursements of counsel and not to other accountable fees and expenses), background checks of our officers and directors, and other offering related expenses up to $125,000, including the fees and disbursements of the underwriters' counsel.

We have agreed to issue to the underwriters the Underwriters' Warrants exercisable for 67,500 shares of common stock (5% of the shares of common stock sold in the offering) to be allocated in full to the underwriters or their designated affiliates. The Underwriters' Warrants are not included in the securities being sold in this offering. The shares issuable upon exercise of the Underwriters' Warrants are identical to those offered by this prospectus.

The Underwriters' Warrants will be exercisable at a per share price of $7.38, which equals 125% of the public offering price, beginning six months after the effective date of the registration statement of which this prospectus is a part, which we refer to as the effective date, and for a period of five years from the effective date. As is customary, the number of shares to be issued under the Underwriters' Warrants and the exercise price will be subject to adjustments in certain events, including stock splits, stock dividends, and recapitalizations. The Underwriters' Warrants may not be transferred, assigned, sold or hypothecated nor will the underwriters be able to engage in any hedging, short sale, derivative, put, or call transaction that would result in the effective economic disposition of the underwriters' warrants or the common stock underlying the Underwriters' Warrants for a period of six months after the effective date except to officers, partners or registered representatives of the underwriter as permitted by FINRA or to dealers participating in the offering, all in accordance with Rule 5110(g)(1) of FINRA. The Underwriters' Warrants and shares of common stock underlying the Underwriters' Warrants are deemed compensation by FINRA. The terms and number of shares underlying the Underwriters' Warrants shall be modified if necessary to comply with FINRA rules or regulations.

Pursuant to the Underwriters' Warrants, the underwriters can request that we file up to two registration statements registering all or a portion of the common stock issued or issuable upon exercise of such Underwriters' Warrant. Under specified circumstances, we have the right to defer filing of a requested registration statement for a period of not more than 60 days, which right may not be exercised more than once during any period of 12 consecutive months. These registration rights are subject to additional conditions and limitations, including that the underwriters are required to pay all of the expenses for the second demand registration. We are registering the offer and sale of the Underwriters' Warrants (and underlying shares of common stock) under the registration statement of which this prospectus is a part.

Right of First Refusal

Upon the closing of this offering, we will grant to WallachBeth Capital, LLC the right of first negotiation to co-manage any public underwriting or private placement of debt or equity securities (excluding (i) shares issued under any compensation or stock option plan approved by the stockholders of our company, (ii) shares issued in payment of the consideration for an acquisition or as part of strategic partnerships and transactions and (iii) conventional banking arrangements and commercial debt financing) of our company or any subsidiary or successor of our company, with the underwriters receiving the right to underwrite or place a number of the securities to be sold therein having an aggregate purchase price therein equal to a minimum of the aggregate purchase price of the shares offered by us in this offering (excluding any shares that we may sell to the underwriters to cover over-allotments), until twelve months after completion of this offering.

Lock-up Agreements

We have agreed that we will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any shares of our common stock, or securities convertible into or exchangeable or exercisable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing, without the prior written consent of the representatives for a period of 180 days after the date of this prospectus, except (a) issuances pursuant to the conversion or exchange of convertible or exchangeable securities (including cashless or "net" exercises, other than broker-assisted cashless exercises) or the exercise

of warrants or options, in each case outstanding on the date of this prospectus and described in this prospectus, (b) grants of employee stock options pursuant to the terms of a plan described in this prospectus, (c) issuances pursuant to the exercise of such options, or (d) satisfaction of certain existing contractual obligations.

All of our executive officers, directors and other certain holders of our capital stock and securities convertible into or exchangeable for our capital stock have agreed that, subject to certain exceptions, for a period of 180 days after the date of this prospectus, they will not, without the prior written consent of the representatives, directly or indirectly, offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale, or otherwise dispose of or hedge any of our shares of common stock, any options or warrants to purchase our shares of common stock, or any securities convertible into, or exchangeable for or that represent the right to receive our shares of common stock. The representatives may, in their discretion, release any of the securities subject to these lock-up agreements at any time. Upon the expiration of the lock-up period, all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be negotiated between us and the representatives. In determining the initial public offering price of our common stock, the representatives will consider:

- the prospects for the industry in which we compete;
- our financial information;
- the ability of our management and our business potential and earning prospects;
- the prevailing securities markets at the time of this offering; and
- the recent market prices of, and the demand for, publicly traded shares of generally comparable companies.

We intend to apply to list the shares of our common stock on the Nasdaq Capital Market under the symbol “SQL.”

Indemnification

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act, liabilities arising from breaches of the representations and warranties contained in the underwriting agreement and to contribute to payments that the underwriters may be required to make for these liabilities.

Price Stabilization

In connection with the offering the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Exchange Act.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriters of shares in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option and/or purchasing shares in the open market.

- Syndicate covering transactions involve purchases of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. If the underwriters sell more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.

- Penalty bids permit the representative to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the Nasdaq or otherwise and, if commenced, may be discontinued at any time.

Electronic Distribution

A prospectus in electronic format may be made available on the web sites maintained by one or more of the underwriters, or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations.

LEGAL MATTERS

Certain legal matters with respect to the shares of common stock offered hereby will be passed upon by Foley & Lardner LLP, Jacksonville, Florida. Certain other legal matters will be passed upon for the underwriters by Carmel, Milazzo & DiChiara LLP, New York, New York.

EXPERTS

The financial statements of SeqLL Inc. as of December 31, 2018 and 2017 and for each of the years then ended have been audited by Wolf & Company, P.C., an independent registered public accounting firm, as stated in their report appearing herein. Such financial statements are included in this prospectus and registration statement in reliance upon the report (which report includes an explanatory paragraph relating to our ability to continue as a going concern) of Wolf & Company, P.C., appearing elsewhere herein, and upon the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the common stock offered in this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us and our common stock, we refer you to the registration statement and to its exhibits and schedules. Statements in this prospectus about the contents of any contract, agreement or other document is not necessarily complete and, in each instance, we refer you to the copy of such contract, agreement or document filed as an exhibit to the registration statement, with each such statement being qualified in all respects by reference to the document to which it refers. You may inspect the registration statement and its exhibits and schedules and other information on SEC's website at www.sec.gov.

We also maintain a website at www.seqll.com, at which, following the completion of this offering, you may access our SEC filings free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus. You may also request a copy of these filings, at no cost, by writing us at 317 New Boston Street, Suite 210, Woburn, Massachusetts 01801, or telephoning us at (781) 460-6016.

SEQLL INC.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors of SeqLL Inc.:

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of SeqLL Inc. (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of operations, changes in stockholders' deficit and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

Emphasis of Matter

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has recurring losses from operations which raises substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

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

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

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

/s/ Wolf & Company, P.C.

Wolf & Company, P.C.

We have served as the Company's auditor since 2018.

Boston, Massachusetts

April 22, 2019

SeqLL Inc.
Consolidated Balance Sheets
December 31, 2018 and 2017

	2018	2017
Assets		
Current assets		
Cash and cash equivalents	$ 64,694	$ 30,058
Accounts receivable	236,607	44,910
Inventory	720,503	783,573
Prepaid expenses	2,413	2,438
Total current assets	1,024,217	860,979
Other assets		
Property and equipment, net	126,327	189,971
Other assets	29,733	28,565
Total assets	**$ 1,180,277**	**$ 1,079,515**
Liabilities and Stockholders' Deficit		
Current liabilities		
Accounts payable	$ 283,187	$ 100,647
Accounts payable – related parties	168,343	114,204
Accrued expenses	97,569	239,371
Deferred revenue	—	82,245
Notes payable	—	287,439
Convertible promissory notes	—	1,970,000
Loan payable	6,500	—
Deferred rent	20,381	31,518
Total current liabilities	575,980	2,825,424
Non-current liabilities		
Liability related to warrants	—	8,474
Convertible promissory notes, long term	990,710	—
Total non-current liabilities	990,710	8,474
Total liabilities	**1,566,690**	**2,833,898**
Commitments and contingencies		
Stockholders' deficit		
Preferred stock, $0.00001 par value; 8,779,762 and 4,017,857 shares authorized at December 31, 2018 and 2017, respectively; 5,791,665 and 3,854,165 shares issued and outstanding at December 31, 2018 and 2017, respectively	58	38
Common stock, $0.00001 par value; 20,299,261 shares authorized at December 31, 2018 and 2017; 4,864,862 shares issued and outstanding at December 31, 2018 and 2017	49	49
Additional paid-in capital	6,804,871	2,548,904
Accumulated deficit	(7,191,391)	(4,303,374)
Total stockholders' deficit	(386,413)	(1,754,383)
Total liabilities and stockholders' deficit	**$ 1,180,277**	**$ 1,079,515**

See report of independent registered public accounting firm and the accompanying notes to these consolidated financial statements
Reflects a 1.85-for-1 reverse stock split effective April 17, 2019

SeqLL Inc.
Consolidated Statements of Operations

	Years Ended December 31,	
	2018	**2017**
Revenue		
Sales	$ 756,303	$ 1,138,052
Other revenue	22,765	200,700
Total revenue	779,068	1,338,752
Cost of sales	674,281	1,084,518
Gross profit	**104,787**	**254,234**
Operating expenses		
Research and development	1,039,260	974,531
General and administrative	1,466,814	806,897
Total operating expenses	2,506,074	1,781,428
Operating loss	**(2,401,287)**	**(1,527,194)**
Other income and expenses		
Gain on settlement of liabilities	182,439	—
Debt conversion expense	(438,873)	—
Interest and other expenses	(230,296)	(179,740)
Total other expenses, net	(486,730)	(179,740)
Net Loss	**$(2,888,017)**	**$(1,706,934)**
Net loss per share – basic and diluted	$ (0.59)	$ (0.35)
Weighted average common shares – basic and diluted	4,864,862	4,864,862

See report of independent registered public accounting firm and the accompanying notes to these consolidated financial statements
Reflects a 1.85-for-1 reverse stock split effective April 17, 2019

SeqLL Inc.
Consolidated Statements of Stockholders' Deficit
For the Years Ended December 31, 2018 and 2017

	Preferred stock		Common stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount			
Balance as of December 31, 2016	**3,854,165**	**38**	**4,864,862**	**$49**	**$2,437,883**	**$ 2,596,440**	**$ 158,470**
Stock-based compensation	—	—	—	—	111,021	—	**111,021**
Net loss	—	—	—	—	—	(1,706,934)	**(1,706,934)**
Balance as of December 31, 2017	**3,854,165**	**38**	**4,864,862**	**49**	**2,548,904**	**(4,303,374)**	**(1,754,383)**
Issuance of preferred stock in private placement	71,429	1	—	—	119,999	—	**120,000**
Conversion of debt into preferred stock	1,866,071	19	—	—	3,134,981	—	**3,135,000**
Stock-based compensation expense	—	—	—	—	553,640	—	**553,640**
Reclassification of derivative warrant liability into equity	—	—	—	—	8,474	—	**8,474**
Fair value of warrants issued in connection with debt conversion	—	—	—	—	438,873	—	**438,873**
Net loss	—	—	—	—	—	(2,888,017)	**(2,888,017)**
Balance as of December 31, 2018	**5,791,665**	**$58**	**4,864,862**	**$49**	**$6,804,871**	**$ (7,191,391)**	**$ (386,413)**

See report of independent registered public accounting firm and the accompanying notes to these consolidated financial statements
Reflects a 1.85-for-1 reverse stock split effective April 17, 2019

SeqLL Inc.
Consolidated Statements of Cash Flows

	Years Ended December 31,	
	2018	**2017**
Cash Flows from Operating Activities		
Net loss	$(2,888,017)	$(1,706,934)
Adjustment to reconcile net loss to net cash used in operating activities:		
Depreciation	63,644	72,636
Gain on settlement of liabilities	(182,439)	—
Stock-based compensation	553,640	111,021
Debt conversion expense	438,873	—
Issuance of derivative warrants	—	2,456
Changes in operating assets and liabilities:		
Accounts receivable – customers	(191,697)	155,057
Accounts receivable – related party	—	46,807
Prepaid expenses	25	2,709
Inventory	63,070	351,378
Other assets	(1,168)	(6,576)
Accounts payable	182,490	49,667
Accounts payable – related parties	54,189	114,204
Accrued expenses	218,908	—
Deferred revenue	(82,245)	(311,808)
Deferred rent	(11,137)	(6,214)
Net cash used in operating activities	(1,781,864)	(1,125,597)
Cash Flows from Investing Activities		
Purchase of property and equipment	—	(11,081)
Net cash used in investing activities	—	(11,081)
Cash Flows from Financing Activities		
Proceeds from issuance of convertible promissory notes	1,795,000	970,000
Proceeds from loan payable	6,500	—
Proceeds from issuance of preferred stock	120,000	—
Payment of notes payable	(105,000)	(10,517)
Net cash provided by financing activities	1,816,500	959,483
Net increase (decrease) in cash and cash equivalents	34,636	(177,195)
Cash and cash equivalents, beginning of year	30,058	207,253
Cash and cash equivalents, end of year	**$ 64,694**	**$ 30,058**
Supplemental disclosure of cash flow information and non-cash transactions		
Cash paid for interest	$ 197	$ 15,000
Conversion of convertible notes payable into preferred stock	$ 3,135,000	$ —
Reclassification of derivative warrant liability to additional paid-in capital	$ 8,474	$ —
Conversion of accrued interest into new convertible notes payable	$ 360,710	$ —

See report of independent registered public accounting firm and the accompanying notes to these consolidated financial statements
Reflects a 1.85-for-1 reverse stock split effective April 17, 2019

SeqLL, Inc.

Notes to Consolidated Financial Statements
December 31, 2018 and 2017

Note 1 — General

SeqLL, Inc. (the "Company" or "SeqLL") was incorporated as a Delaware corporation on April 3, 2014 ("Inception). On April 8, 2014, SeqLL acquired a 100% ownership interest in SeqLL, LLC ("Subsidiary"), a domestic limited liability company formed on March 11, 2013 in the State of Massachusetts. SeqLL is a holding company of the Subsidiary and is a life sciences company focused on the development and application of innovative genetic analysis technologies and the monetization of that technology and related intellectual property. The Subsidiary purchased technology to enable the rapid analysis of large volumes of genetic material by directly sequencing single molecules of DNA or RNA. The Subsidiary's principal office is located in Woburn, Massachusetts.

Since its inception, the Company has devoted substantially most of its effort to business planning, and research and development. The Company has incurred net losses of $2,888,017 and $1,706,934 and had negative cash flow from operating activities of $1,781,864 and $1,125,597 for the years ended December 31, 2018 and 2017, respectively, and had an accumulated deficit of $7,191,391 as of December 31, 2018. These conditions among others raise substantial doubts about the Company's ability to continue as a going concern. The Company's ability to continue to operate is dependent upon raising additional funds to finance its activities. It is expected that the Company's primary investor is going to continue funding ongoing operations as they have in the past since the Company's founding in 2013. However, if the Company is not successful in securing additional outside financing, there are no assurances that the investor will continue to fund the Company to an adequate level of financing needed for the long-term development and commercialization of its products.

The consolidated financial statements do not include any adjustments with respect to the carrying amounts of assets and liabilities and their classification that might be necessary should the Company be unable to continue as a going concern. The Company management and the Board of Directors believe that the Company's existing financial resources are adequate to satisfy its expected liquidity requirements through the end of second quarter of 2019.

On May 17, 2018, the Company's Chief Executive Officer, Dr. Elizabeth Reczek, Ph.D., resigned from the Company, thereby terminating her employment agreement. Her resignation is not the result of any disagreement with the Company. The Company paid Dr. Reczek any compensation that was earned but unpaid prior to resignation. Dr. Reczek's stock options for 194,594 shares of common stock expired unexercised as of August 14, 2018.

On August 20, 2018, the Company's Board voted John W. Kennedy to be their Chief Financial Officer and Secretary.

Stock Split

On April 15, 2019, the Company's stockholders approved an amendment to the Company's certificate of incorporation (the "Amendment") to effect a 1.85-for-1 reverse stock split of shares of the Company's outstanding common stock, such that each 1.85 shares of common stock, $0.00001 par value, becomes one share of common stock, $0.00001 par value per share. The Amendment became effective on April 17, 2019 when filed with the Secretary of State of the State of Delaware.

All share and per share data in the consolidated financial statements and notes have been retroactively adjusted to reflect the stock split for all periods presented.

SeqLL, Inc.

Notes to Consolidated Financial Statements
December 31, 2018 and 2017

Note 2 — Significant Accounting Policies

A summary of significant accounting policies followed by the Company in the preparation of the accompanying consolidated financial statements follows:

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States ("U.S. GAAP"). The consolidated financial statements include the accounts of SeqLL and its wholly-owned subsidiary, SeqLL, LLC. All intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of the financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with an original maturity of three months or less to be cash equivalents. The Company had no cash equivalents at December 31, 2018 and 2017.

Accounts Receivable

In the normal course of business, the Company provides credit to its customers and performs credit evaluations of these customers. The Company periodically reviews accounts receivables for doubtful accounts. There were no doubtful accounts as of December 31, 2018 and 2017.

Inventory

Inventory consists of finished goods, work-in-process and raw materials and is valued at the lower of cost or market, determined by the first-in, first-out ("FIFO") method. As the Company manufactures the finished goods and work-in-process materials, overhead costs are included in inventory. On an annual basis, the Company evaluates the carrying cost of finished goods, work-in-process and raw materials items. To the extent that such costs exceed future demand estimates and /or exhibit historical turnover at rates less than current inventory levels, the Company records a reserve for excess and obsolete inventories to reduce the carrying value of inventories. Inventory balance consisted of the following:

	December 31, 2018	December 31, 2017
Raw Materials	$ 61,024	$ 60,518
Work in Process	218,275	281,851
Finished Goods	441,204	441,204
Total Inventory	$720,503	$783,573

Property and Equipment

Property and equipment are recorded at cost and depreciated over the estimated useful lives of the related assets using the straight-line method. Lab equipment is depreciated over a five-year period. Leasehold improvements are depreciated over the shorter of the useful life and the term of the lease. When assets are retired or otherwise disposed of, the cost of these assets and related accumulated depreciation or amortization are eliminated from the balance sheet and any resulting gains or losses are included in the statement of operations in the period of disposals.

Note 2 — Significant Accounting Policies (Continued)

Long-lived Assets

The Company assesses, on an annual basis, the recoverability of the carrying amount of long-lived assets used in continuing operations. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future net cash flow expected to be generated by the asset. A loss is recognized when expected future cash flow (undiscounted and without interest) are less than the carrying amount of the asset. The impairment loss is determined as the difference by which the carrying amount of the asset exceeds its fair value. No impairment was recognized during the periods ending December 31, 2018 and 2017.

Deferred Rent Liability

The Company's office lease agreement is subject to scheduled escalations in rent throughout its term. Accordingly, the Company recorded the related rent expense on a straight-line basis that resulted in a deferred rent liability of $20,381 and $31,518 on December 31, 2018 and 2017, respectively.

Revenue Recognition

Revenue from genetic sequencing services and equipment sales are recognized when there is persuasive evidence of an arrangement, service has been rendered or product has been delivered, the sales price is determinable, and collectability is reasonably assured. Service is deemed to be rendered when the results have been reported to the customer who ordered the sequencing. To the extent that sequencing services have been prepaid, but results have not yet been reported, recognition of all related revenue is deferred until results are reported.

Grants Revenue

The Subsidiary receives government research grants that provide reimbursement payments for work performed under multiple sequencing projects. Grants revenue is recognized when the related expenses are incurred. The Subsidiary is subject to independent verification of expenditures and research results under the contract terms. In the years ended December 31, 2018 and 2017, the Company earned grant revenue of $22,765 and $200,700, respectively.

Stock-based Compensation

The Company's share-based compensation program grants awards which may include stock options and restricted stock awards. The fair values of stock option grants are estimated as of the date of the grant using the Black-Scholes option valuation model. The fair values of restricted stock awards are based on fair value of Company's common stock on the date of the grant. The fair values of the stock-based awards, including the actual forfeitures, are then expensed over the requisite service period, generally the vesting period, for each award.

For awards granted to consultants and non-employees, compensation expense is recognized over the vesting period of the awards, which is generally the period during which services are rendered by such consultants and non-employees.

Research and Development Expenses

The Company expenses all research and development costs as incurred. Included in research and development costs are wages, stock-based compensation and benefits of employees and other operational costs related to the Company's research and development activities, including facility-related expenses and external costs of outside contractors engaged by the Company.

Note 2 — Significant Accounting Policies (Continued)

Earnings per Share

The Company has adopted ASC 260, "Earnings Per Share" ("EPS") which requires presentation of basic and diluted EPS on the face of the income statement for all entities with complex capital structures and requires a reconciliation of the numerator and denominator of the basic EPS computation to the numerator and denominator of the diluted EPS computation. In the accompanying financial statements, basic and diluted net loss per common share is computed by dividing net loss in each period by the weighted average number of shares of common stock outstanding during such period. For the periods presented, common stock equivalents, consisting of options, convertible preferred stock and warrants, were not included in the calculation of the diluted loss per share because to do so would be anti-dilutive.

Segments

The Company operates in a single business segment that includes the design, development and manufacturing of genetic analysis technologies.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts with Customers ("ASU 2014-09") to provide updated guidance on revenue recognition. ASU 2014-09 requires a company to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies may need to use more judgment and make more estimates than under today's guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price, and allocating the transaction price to each separate performance obligation. This standard is effective for fiscal years beginning after December 15, 2018, as well as quarterly and interim financial statements for fiscal years beginning after December 15, 2019.

The Company is in process of evaluating the impact of adopting ASU 2014-09 on its consolidated financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842) and subsequently issued several amendments including ASU 2018-11 (collectively, "Topic 842"), which establishes new accounting and disclosure requirements for leases. Topic 842 requires lessees to classify most leases as either finance or operating leases and to initially recognize a lease liability and right-of-use asset. Entities may elect to account for certain short-term leases (with a term of one year or less) using a method similar to the current operating lease model. The statements of operations will include, for finance leases, separate recognition of interest on the lease liability and amortization of the right-of-use asset and for operating leases, a single lease cost, calculated so that the cost of the lease is allocated over the lease term on a straight-line basis. These leases will be required to be presented on the balance sheet in accordance with the requirements of Topic 842, which is effective for the Company for annual reporting periods beginning after December 15, 2019, including interim periods therein, with early adoption permitted. Topic 842 may be applied using a modified retrospective approach or by applying the new standard as of the adoption date. The Company intends to adopt Topic 842 in the first quarter of 2020 by applying the new standard as of the adoption date and, consequently, financial information for the comparative periods will not be updated. The Company has not yet completed the analysis of how adopting this guidance will affect its consolidated financial statements.

In June 2018, the FASB issued ASU 2018-07, Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting. ASU 2018-07 expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from

SeqLL, Inc.

Notes to Consolidated Financial Statements
December 31, 2018 and 2017

Note 2 — Significant Accounting Policies (Continued)

nonemployees. An entity should apply the requirements of Topic 718 to non-employees awards except for specific guidance on inputs to an option pricing model and the attribution of cost. ASU 2018-07 specifies that Topic 718 applies to all share-based payment transactions in which a grantor acquires goods or services to be used or consumed in a grantor's own operations by issuing share-based payment awards, and that Topic 718 does not apply to share-based payments used to effectively provide (1) financing to the issuer or (2) awards granted in conjunction with selling goods or services to customers as part of a contract accounted for under Topic 606 Revenue from Contracts with Customers. The Company is currently evaluating the impact of adopting this guidance.

In August 2018, the SEC adopted the final rule under SEC Release No. 33-10532, Disclosure Update and Simplification, amending certain disclosure requirements that were redundant, duplicative, overlapping, outdated or superseded. In addition, the amendments expanded the disclosure requirements on the analysis of stockholders' equity for interim financial statements. Under the amendments, an analysis of changes in each caption of stockholders' equity presented in the balance sheet must be provided in a note or separate statement. The analysis should present a reconciliation of the beginning balance to the ending balance of each period for which a statement of comprehensive income is required to be filed. This final rule is effective on November 5, 2018. The Company will adopt this release in the first quarter of 2019.

Note 3 — Property and Equipment, net

Property and equipment are recorded at historical cost and consist of the following:

	December 31, 2018	December 31, 2017
Lab Equipment	$ 294,509	$ 294,509
Leasehold Improvements	74,390	74,390
	368,899	368,899
Less accumulated depreciation and amortization	(242,572)	(178,928)
	$ 126,327	$ 189,971

Depreciation expense amounted to $63,644 and $72,636 for the years ended December 31, 2018 and 2017, respectively.

Note 4 — Accrued Expenses

Accrued expenses consist of the following:

	December 31, 2018	December 31, 2017
Employee compensation	$ 23,712	$ 22,550
Accrued Interest	56,829	192,006
Professional and legal fees	10,000	17,422
Other	7,028	7,393
	$ 97,569	$ 239,371

SeqLL, Inc.

Notes to Consolidated Financial Statements
December 31, 2018 and 2017

Note 5 — Stock Option Plan

The Company's 2014 Equity Incentive Plan (the "Plan") permits the grant of share options and shares to its employees and certain non-employees for up to 1,081,081 shares.

	Number of Options	Weighted-Average Exercise Price per Share	Weighted Average Remaining Contractual Term (in Years)	Aggregate Intrinsic Value
Outstanding as of January 1, 2018	586,486	$0.90	7.98	$557,250
Granted	535,133	2.46	—	—
Exercised	—	—	—	—
Cancelled/Forfeited	(237,842)	1.01		
Outstanding as of December 31, 2018	883,777	$1.51	8.54	$611,100
Exercisable at December 31, 2018	800,020	$1.46	8.60	$486,220

As of December 31, 2018, there were 197,297 shares available for future issuance under the Plan. Generally, option awards are granted with an exercise price equal to the market price of the Company's stock at the date of grant and vest over a period of four years. No option may have a term in excess of ten years from the option grant date. Share awards generally vest over a period of four years. Certain option and share awards provide for accelerated vesting if there is a change in control (as defined by the Plan).

The following table provides the assumptions used in determining the fair value of share-based awards for the year ended December 31, 2018. There were no options granted in 2017.

	2018
Risk-free interest rate	2.99 – 3.00%
Expected option life	5.00 – 5.25
Expected dividend yield	—%
Expected stock price volatility	67%

The Company's expected stock price volatility assumption is based on the volatility of comparable public companies. The Company used a simplified method to estimate the expected life assumption. The risk-free interest rate is based on the yield of U.S. Treasury securities consistent with the life of the option. No dividend yield was assumed as the Company does not pay dividends on its common stock.

The Company has periodically granted stock options and restricted stock awards to consultants for services, pursuant to the Company's stock plans at the fair market value on the respective dates of grant. Should the Company terminate any of its consulting agreements, the unvested options underlying the agreements would also be cancelled.

The weighted-average fair value of all options granted during the year ended December 31, 2018 estimated as of the grant date using the Black-Scholes option valuation model, was $2.66 per share. During the years ended December 31, 2018 and 2017, the Company recorded $553,640 and $111,021 of stock-based compensation expense associated with vesting of stock options, respectively. As of December 31, 2018, there was $308,195 of unrecognized compensation expense related to unvested share-based compensation awards, which will be recognized over a weighted average period of approximately one year.

SeqLL, Inc.

Notes to Consolidated Financial Statements
December 31, 2018 and 2017

Note 6 — Related Party Transactions

On December 13, 2018, Daniel Jones, CEO, made a $6,500 short-term, non-interest bearing loan to the Company. The loan was repaid on January 3, 2019.

For the years ended December 31, 2018 and 2017, the Company had revenues from sales of sequencing kits, sequencing services and equipment sales to the St. Laurent Institute, of $0 and $300,000, respectively. For the years ended December 31, 2018 and 2017, the Company had revenues from sales of sequencing kits, sequencing services and equipment sales to the True Bearing Diagnostics, of $128,280 and $0, respectively.

For the years ended December 31, 2018 and 2017, the Company incurred expenses payable to the Stonemill Center for reimbursement of legal fees amounting to $16,627 and $0, respectively.

For the years ended December 31, 2018 and 2017, the Company incurred expenses payable to Floral Finance for reimbursement of legal fees amounting to $9,849 and $0, respectively.

For the years ended December 31, 2018 and 2017, the Company incurred expenses payable to St. Laurent Realty, Inc. for services related to clerical and accounting amounting to $27,913 and $250, respectively.

For the years ended December 31, 2018 and 2017, the Company incurred expenses payable to the St. Laurent Institute for services related to sequence analysis amounting to $113,954 in each year.

At December 31, 2018 and 2017, the Company had the following outstanding payables to related parties:

	December 31, 2018	December 31, 2017
Floral Finance	$ 9,849	$ —
St. Laurent Institute	113,954	113,954
St. Laurent Realty, Inc.	27,913	250
Stonemill Center	16,627	—
	$ 168,343	$ 114,204

William St. Laurent, a member of the Company's board of directors, relatives of Mr. St. Laurent and entities controlled by the St. Laurent family are controlling shareholders of the Company. These entities are all St. Laurent family-owned entities and are therefore related parties.

Note 7 — Income Taxes

The Company is subject to United States federal and Massachusetts state income taxes at an approximate combined rate of 29% in 2018. During the years ended December 31, 2018 and 2017, there was no provision for income taxes as the Company incurred losses during both periods. Deferred tax assets and liabilities reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The Company records a full valuation allowance against its deferred tax assets as the Company believes it is more likely than not the deferred tax assets will not be realized. The primary component of the Company's deferred tax assets are its net operating loss carryforwards. The valuation allowance against deferred tax assets was approximately $832,000 and $748,000 as of December 31, 2018 and 2017, respectively.

On December 22, 2017, The Tax Cuts and Jobs Act (the "Act") was enacted. The Act significantly revised the United States corporate income tax law by lowering the corporate federal income tax rate from 35% to 21%. As of December 31, 2017, the Company has assessed the effects of the corporate rate reduction on its existing deferred tax balances which resulted in a $557,000 reduction in the deferred tax assets. Since the Company maintains a full valuation allowance on its deferred tax assets, a corresponding

Note 7 — Income Taxes (Continued)

reduction in the valuation allowance equal to the effect of the rate reduction on the ending deferred tax asset was also reflected. In addition to the rate reduction, the Act also requires companies with foreign subsidiaries to pay a one-time transition tax on earnings that were previously tax deferred. As of December 31, 2017, the Company did not maintain any foreign subsidiaries and did not have previously deferred foreign earnings subject to the transition tax.

The income tax benefit differs from the amount of income tax determined by applying the U.S. federal income tax rate to pretax income for the years ended December 31, 2018 and 2017 due to the following:

	2018	2017
Computed “expected” tax benefit	-21.0%	-34.0%
Increase (decrease) in income taxes resulting from:		
State taxes, net of federal benefit	-8.0%	-8.0%
Permanent differences	0.0%	0.0%
Increase in valuation reserve	29.0%	42.0%
	0.0%	**0.0%**

Note 8 — Notes Payable

In March 2013, the Subsidiary entered into a Purchase Agreement (the “Purchase Agreement”) with Helicos Biosciences Company (“Helicos”) to purchase certain assets related to DNA and RNA sequencing for a purchase price of $575,000. In conjunction with the Purchase Agreement, the Company issued to Helicos a note payable (the “Note”) in the amount of $500,000 to finance the asset purchase. The interest rate on the Note equals 3% per annum and is payable monthly. The Note is collateralized by primarily all of the assets the Subsidiary acquired from Helicos.

The principal and interest outstanding at December 31, 2017 on the Note was $287,439. On March 15, 2018, the Company negotiated a final settlement payment for the Note in the amount of $105,000 and recorded a gain on extinguishment of $182,439. The Note was cancelled and forgiven upon legal acceptance of payment.

During the year ended December 31, 2018 and 2017, the Company entered into a series of convertible promissory notes (the “Promissory Notes”) with certain preferred stockholders amounting to $1,795,000 and $970,000, respectively, including accrued interest at 10% per annum. The Promissory Notes are convertible at the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company’s next equity financing and had a one-year term. In connection with each of the Promissory Notes, the Company was obliged to issue a warrant to purchase the number of common shares equal to 6% of the total amount of shares related to the conversion of the Promissory Notes at the exercise price equal to the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company’s next equity financing.

On September 30, 2018, the Company exchanged $3,135,000 of Promissory Notes held by St. Laurent Investments, LLC, a related party, and their rights to receive warrants for (i) 1,866,071 shares of Series A-2 Preferred Stock; (ii) a warrant to purchase 486,486 shares of common stock exercisable at $2.16 per share as an inducement to enter into the exchange; (iii) a 1-year promissory note bearing 10% interest per annum and payable in cash upon a public offering in the amount of $360,710 for the accrued interest under the Promissory Notes as of September 30, 2018. In connection with the conversion of Promissory Notes, the life of outstanding warrants to purchase 60,506 shares of the Company’s common stock was modified to a five-year term from the conversion date of September 30, 2018. The Company calculated the fair value at issuance and the incremental cost related to the modification of the term of these warrants and determined it to be immaterial.

Note 8 — Notes Payable (Continued)

In connection with all the Promissory Notes issued in 2018, including those exchanged for Preferred Stock on September 30, 2018, warrants to purchase 34,633 shares of the Company's common stock were issued to noteholders and 3,088 shares were issued to a financing agent. The grant-date fair value of these warrants was approximately $19,400.

The Promissory Notes are secured by substantially all assets of the Company.

In the year ended December 31, 2018, the Company recorded debt conversion expense in the amount of $438,873 for warrants to purchase 486,486 shares of the Company's common stock at $2.16 per share issued as an inducement for the exchange of the Promissory Notes.

Note 9 — Preferred Stock

On July 27, 2018, the Company received $120,000 in new investment capital from the issuance of 71,429 shares of Series A-2. The placement agent, Terranova Capital Partners, earned a warrant for 3,088 shares of common stock exercisable at $3.10 per share.

On September 30, 2018, the Company exchanged $3,135,000 of Promissory Notes held by St. Laurent Investments, LLC, a related party, for 1,866,071 shares of Series A-2 Convertible Preferred Stock.

The rights and preferences at December 31, 2018 of the Series A-1 Preferred Stock ("Series A-1") and Series A-2 Preferred Stock ("Series A-2") collectively the "Preferred Stock", are as follows:

Voting rights: Series A-1 and Series A-2 preferred stockholders are entitled to vote together with all other classes and series of stock and have the right to receive notice of any stockholder's meetings. Each preferred stock is entitled to the number of votes equal to the number of shares of common stock into which each share of the applicable preferred stock is convertible at the time of such vote.

Conversion Rights: The Series A Preferred Stock may be converted at any time at the election of the holder into Common Stock at an initial conversion price determined by dividing the Series A-1 Original Issue Price of $0.32 by the Series A-1 Conversion Price of $0.59; and the Series A-2 Original Issue Price of $1.68 by the Series A-2 Conversion Price of $3.10; both are subject to adjustment for stock splits, stock combinations and the like, and to a weighted-average adjustment for future issuances of Common Stock, warrants or rights to purchase Common Stock or securities convertible into Common Stock for a consideration per share that is less than the then-applicable conversion price, subject to certain exceptions listed in the Charter.

The Series A Preferred Stock is subject to automatic conversion upon (i) the closing of an initial public offering of the Common Stock at a price per share equal to at least $5.00 (as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalization or the like) in an underwritten public offering in which the Company raises gross proceeds of at least $10 million or (ii) the consent of holders of at least a majority of the then-outstanding shares of Preferred Stock voting together as a single class.

Liquidation Preferences: In the event of any voluntary or involuntary liquidation, deemed liquidation event, dissolution or winding up of the Company, as defined, the holders of the preferred stock are entitled to be paid out of the assets of the Company before any payments are to be made to any other shareholders. The liquidation price to be paid is the greater of the original issue price for Series A-1 ($0.32 per share) and Series A-2 ($1.68 per share), plus any dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had all shares of Series A-1 and Series A-2 been converted into Common Stock immediately prior to such liquidation. The aggregate liquidation price was $5,479,997 at December 31, 2018.

Redemption Rights: SeqLL has the right to redeem any outstanding shares of preferred stock at a redemption price equal to the original issue price ($0.32 per share for Series A-1 and $1.68 per share for Series A-2) plus all accrued but unpaid dividends thereon.

SeqLL, Inc.

Notes to Consolidated Financial Statements
December 31, 2018 and 2017

Note 9 — Preferred Stock (Continued)

Dividends: The dividend rate per share of Series A-1 is $0.0256 per annum and $0.1344 per annum for each share of Series A-2. Dividends of preferred stock are not cumulative. As of December 31, 2018, no dividends have been declared by the Company's Board of Directors.

Note 10 — Common Stock Warrants

In 2018, management made the determination that the warrants to purchase common stock were no longer required to be recorded as derivative liabilities. Therefore, $8,474 of warrant liability was reclassified to additional paid-in capital.

The following table summarizes information with regard to outstanding warrants to purchase common stock as of December 31, 2018.

Issuance Date	Number of Shares Issuable Upon Exercise of Outstanding Warrants	Exercise Price	Expiration Date
2/19/2016	9,652	$3.10	2/18/2021
2/19/2016	9,652	$3.10	2/18/2021
3/25/2016	2,895	$3.10	3/24/2021
3/25/2016	1,447	$3.10	3/24/2021
5/4/2017	3,860	$3.10	5/3/2022
6/14/2017	1,351	$3.10	6/13/2022
8/30/2018	3,088	$3.10	8/29/2023
9/30/2018	60,506	$3.10	9/29/2023
9/30/2018	486,486	$2.16	9/29/2023
10/17/2018	1,157	$3.10	10/16/2023
11/2/2018	964	$3.10	11/1/2023
11/9/2018	964	$3.10	11/9/2023
11/16/2018	964	$3.10	11/15/2023
11/29/2018	964	$3.10	11/28/2023
12/21/2018	964	$3.10	12/20/2023
12/27/2018	964	$3.10	12/26/2023
Total	**585,878**		

At December 31, 2018, the weighted average remaining life of the outstanding warrants is 4.63 years, all warrants are exercisable, and the aggregate intrinsic value for the warrants outstanding was $144,000.

Note 11 — Commitments and Contingencies

In November 2014, the Company entered an office space lease in Woburn, Massachusetts (the "Lease"), which was considered the Company's corporate headquarters, which expires January 31, 2020. Rent expense for this lease was $92,665 per year for years ended December 31, 2018 and 2017.

On September 15, 2018, the Company executed an agreement to guarantee amounts owed upon default by John W. Kennedy, our Chief Financial Officer, on a lease for Mr. Kennedy's housing. The annual rental amount due on the lease is $32,400 and is paid by Mr. Kennedy.

SeqLL, Inc.

Notes to Consolidated Financial Statements
December 31, 2018 and 2017

Note 11 — Commitments and Contingencies (Continued)

The future minimum lease commitments under non-cancellable leases described above are as follows for the fiscal year ending December 31:

2019	$133,024
2020	27,489
Total	$160,513

Note 12 — Subsequent Events

During 2019, the Company has entered into a series of convertible promissory notes with St. Laurent Investments, amounting to $545,000. These convertible promissory notes accrue interest at 10% per annum and are convertible at the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing. In connection with these convertible promissory notes, the Company is obligated to issue warrants to purchase the number of common shares equal to 6% of the total amount of shares related to the conversion of these convertible promissory notes at the exercise price equal to the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing.

On April 15, 2019, the Company's stockholders approved an amendment to the Company's certificate of incorporation (the "Amendment") to effect a 1.85-for-1 reverse stock split of all shares of the Company's outstanding common stock, such that each 1.85 shares of common stock, $0.00001 par value, becomes one share of common stock, $0.00001 par value per share. The Amendment became effective on April 17, 2019 when filed with the Secretary of State of the State of Delaware.

1,350,000 Shares of

Common Stock

PRELIMINARY PROSPECTUS

, 2019

WallachBeth Capital, LLC

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the Securities and Exchange Commission registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and the Nasdaq Capital Market listing fee.

	Amount to be Paid
SEC registration fee	$ 1,271
FINRA filing fee	$ 2,071
The Nasdaq Capital Market initial listing fee	$ 45,000
Printing and engraving expenses	$100,000
Accounting fees and expenses	$150,000
Legal fees and expenses	$350,000
Transfer agent and registrar fees	$ 1,500
Miscellaneous fees and expenses	$ 50,000
Total	$699,842*

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

Section 102 of the General Corporation Law of the State of Delaware permits a corporation to eliminate the personal liability of directors of a corporation to the corporation or its stockholders for monetary damages for a breach of fiduciary duty as a director, except for breaches of the director's duty of loyalty to the corporation or its stockholders, acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of a law, authorizations of the payments of a dividend or approval of a stock repurchase or redemption in violation of Delaware corporate law or for any transactions from which the director derived an improper personal benefit. Our certificate of incorporation will provide that no director will be liable to us or our stockholders for monetary damages for breach of fiduciary duties as a director, subject to the same exceptions as described above. We also expect to maintain standard insurance policies that provide coverage (1) to our directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act and (2) to us with respect to indemnification payments we may make to such officers and directors.

Section 145 of the General Corporation Law of the State of Delaware provides that a corporation has the power to indemnify a director, officer, employee, or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with a threatened, pending, or completed action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, indemnification is limited to expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with defense or settlement of such action or suit and no indemnification shall be made with respect to any claim, issue, or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and

reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper. In addition, to the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit, or proceeding described above (or claim, issue, or matter therein), such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. Expenses (including attorneys' fees) incurred by an officer or director in defending any civil, criminal, administrative, or investigative action, suit, or proceeding may be advanced by the corporation upon receipt of an undertaking by such person to repay such amount if it is ultimately determined that such person is not entitled to indemnification by the corporation under Section 145 of the General Corporation Law of the State of Delaware. Our amended and restated certificate of incorporation will provide that we will, to the fullest extent permitted by law, indemnify any person made or threatened to be made a party to an action or proceeding by reason of the fact that he or she (or his or her testators or intestate) is or was our director or officer or serves or served at any other corporation, partnership, joint venture, trust or other enterprise in a similar capacity or as an employee or agent at our request, including service with respect to employee benefit plans maintained or sponsored by us, against expenses (including attorneys'), judgments, fines, penalties and amounts paid in settlement incurred in connection with the investigation, preparation to defend, or defense of such action, suit, proceeding, or claim. However, we are not required to indemnify or advance expenses in connection with any action, suit, proceeding, claim, or counterclaim initiated by us or on behalf of us. Our amended and restated bylaws will provide that we will indemnify and hold harmless each person who was or is a party or threatened to be made a party to any action, suit, or proceeding by reason of the fact that he or she is or was our director or officer, or is or was serving at our request in a similar capacity of another corporation, partnership, joint venture, trust or other enterprise, including service with respect to employee benefit plans (whether the basis of such action, suit, or proceeding is an action in an official capacity as a director or officer or in any other capacity while serving as a director of officer) to the fullest extent authorized by the Delaware General Corporation Law against all expense, liability and loss (including attorney's fees, judgments, fines, ERISA excise taxes, or penalties and amounts paid in settlement) reasonably incurred or suffered by such person in connection with such action, suit or proceeding, and this indemnification continues after such person has ceased to be an officer or director and inures to the benefit of such person's heirs, executors and administrators. The indemnification rights also include the right generally to be advanced expenses, subject to any undertaking required under Delaware General Corporation Law, and the right generally to recover expenses to enforce an indemnification claim or to defend specified suits with respect to advances of indemnification expenses.

Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding securities sold and issued by us since April 1, 2016 that were not registered under the Securities Act, as well as the consideration received by us for such securities and information relating to the section of the Securities Act, or rule of the Securities and Exchange Commission, under which exemption from registration was claimed.

(1) Option Agreement with Abhijeet Shinde dated December 1, 2016 for 43,243 incentive stock options pursuant to the 2014 Plan.

(2) Option Agreement with Andrea Ashford Hicks dated July 24, 2016 for 16,216 nonstatutory stock options pursuant to the 2014 Plan.

(3) Option Agreements with certain employees dated November 9, 2016 for an aggregate 233,513 stock options pursuant to the 2014 Plan.

(4) Option Agreement with certain employees dated December 9, 2016 for an aggregate 5,405 incentive stock options pursuant to the 2014 Plan.

(5) On March 15, 2018, the Company negotiated a final settlement payment for the promissory notes issued to Helicos Biosciences Company in the amount of $105,000 (the "Helicos Note"). The principal and interest outstanding at December 31, 2017 on the Helicos Note was $290,416. The Helicos Note was cancelled and forgiven upon legal acceptance of payment. The Notes carry a warrant in the amount equal to 6% of the Helicos Note to purchase stock of the Company.

(6) Through the date ending September 5, 2018, the Company entered into a series of convertible promissory notes with certain preferred stockholders amounting $3,314,315 and accruing interest at 10% per annum. On September 30, 2018, the Company entered into an Exchange Agreement with St. Laurent Investments, LLC (the "SLT") to exchange the outstanding SLT's promissory notes in the amount of $3,135,000 for (i) 1,866,071 shares of the Company's Series A-2 Preferred Stock; (ii) warrants equal to 60,521 shares of common stock; (iii) warrants equal to 486,486 shares of common stock and (iv) a new promissory note in the amount of $360,710 for the accrued interest for the SLT notes as of September 30, 2018.

(7) Option Agreements with certain employees and consultants dated April 15, 2019 for an aggregate 32,431 stock options pursuant to the 2014 Plan.

(8) During the fourth quarter of 2018, the Company entered into a series of convertible promissory notes with SLT amounting to $360,000. These convertible promissory notes accrue interest at 10% per annum and are convertible at the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing. In connection with these convertible promissory notes, the Company issued 6,941 warrants to purchase common shares at an exercise price equal to the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing.

(9) Through April 8, 2019, the Company has entered into a series of convertible promissory notes with SLT amounting to $545,000. These convertible promissory notes accrue interest at 10% per annum and are convertible at the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing. In connection with these convertible promissory notes, the Company is obligated to issue warrants to purchase the number of common shares equal to 6% of the total amount of shares related to the conversion of these convertible promissory notes at the exercise price equal to the lower of $3.10 per share or a 20% discount to the share price paid by the purchasers of equity securities in the Company's next equity financing.

The offers, sales and issuances of securities listed above, were deemed exempt from registration under Section 4(a)(2) of the Securities Act or Regulation D promulgated thereunder in that the issuance of securities did not involve a public offering. The recipients of such securities in each of these transactions represented their intention to acquire the securities for investment purposes only and not with a view to or for sale in connection with any distribution thereof. The offers, sales and issuances of securities listed above, were deemed exempt from registration in reliance on Section 4(a)(2) of the Securities Act or Rule 701 promulgated thereunder as transactions pursuant to benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of such securities were our employees, directors or bona fide consultants and received the securities under our equity inventive plans. All of the foregoing securities are deemed restricted securities for purposes of the Securities Act and appropriate legends were affixed to the securities issued in such transactions.

Item 16. Exhibits and Financial Statement Schedules.

(a) *Exhibits.*

The exhibits to the registration statement are listed in the Exhibit Index attached hereto and are incorporated by reference herein.

(b) *Financial Statement Schedules*.

All other schedules are omitted because they are not required, are not applicable, or the information is included in the financial statements or the related notes to financial statements thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is,

therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the “Calculation of Registration Fee” table in the effective registration statement.

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

(5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities: the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(6) Provide to the underwriter at the closing specified in the underwriting agreements certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

(7) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(8) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

EXHIBIT INDEX

In reviewing the agreements included as exhibits to this registration statement, please remember they are included to provide you with information regarding their terms and are not intended to provide any other factual or disclosure information about us, our subsidiaries or other parties to the agreements. The agreements contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties have been made solely for the benefit of the other parties to the applicable agreement and:

- *should not in all instances be treated as categorical statements of fact, but rather as a way of allocating the risk to one of the parties if those statements prove to be inaccurate;*
- *have been qualified by disclosures that were made to the other party in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement;*
- *may apply standards of materiality in a way that is different from what may be viewed as material to you or other investors; and*
- *were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement and are subject to more recent developments.*

Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time. We acknowledge that, notwithstanding the inclusion of the foregoing cautionary statements, we are responsible for considering whether additional specific disclosures of material information regarding material contractual provisions are required to make the statements in this registration statement not misleading. Additional information about us may be found elsewhere in the prospectus included in this registration statement.

Exhibit Number	Description of Exhibits
1.1**	Form of Underwriting Agreement
3.1***	Amended and Restated Certificate of Incorporation, as currently in effect
3.2***	Bylaws, as currently in effect
3.3***	Form of Amended and Restated Certificate of Incorporation to be in effect upon the completion of this offering
3.4***	Form of Amended and Restated Bylaws, to be in effect upon the completion of this offering
4.1***	Specimen common stock certificate
4.2**	Form of Underwriters' Warrant
4.3***	Form of Convertible Note
4.4***	Form of Outstanding Warrant
5.1**	Opinion of Foley & Lardner LLP
10.1***#	Amended and Restated 2014 Equity Incentive Plan
10.2***	License Agreement dated March 15, 2013 between SeqLL, LLC and Helicos Biosciences Corporation
10.3***	Sub-License Agreement dated March 15, 2013 between SeqLL, LLC and Helicos Biosciences Corporation
10.4***	Amended and Restated Investors Rights Agreement
10.5***	Commercial Lease dated November 25, 2014 by and between SeqLL, LLC, JAM Cambridge Ventures, LLC and RAM Cambridge Venture LLC
10.6***	First Amendment to the Lease Agreement dated April 1, 2016, by and between SeqLL, LLC, JAM Cambridge Ventures, LLC and RAM Cambridge Venture LLC
10.7***	Amended and Restated Right of First Refusal and Co-Sale Agreement

Exhibit Number	Description of Exhibits
10.8***	Exchange Agreement dated September 30, 2018 by and between SeqLL Inc. and St. Laurent Investments, LLC
10.9***	Form of Stock Option Agreement
10.10***	Series A-1 Preferred Stock Purchase Agreement
10.11***	Series A-2 Preferred Stock Purchase Agreement
10.12***	First Amendment to Series A-2 Preferred Stock Purchase Agreement
21.1***	Subsidiaries of the Registrant
23.1***	Consent of Wolf & Company, P.C., independent registered public accounting firm
23.2**	Consent of Foley & Lardner LLP (included in Exhibit 5.1)
24.1***	Power of Attorney (included on signature page to this registration statement)

** To be filed by amendment.

*** Filed herewith.

# Indicates a management contract or compensatory plan.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Woburn, State of Massachusetts, on this 19th day of April, 2019.

SEQLL INC.

By: /s/ Daniel Jones

Daniel Jones
Chief Executive Officer

POWER OF ATTORNEY

We, the undersigned directors and officers of SeqLL Inc., hereby severally constitute and appoint Daniel Jones and John Kennedy, and each of them, our true and lawful attorneys-in-fact and agents, with full power of substitution and re-substitution for him or her and in his or her name, place, and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and any subsequent registration statements pursuant to Rule 462 of the Securities Act of 1933, as amended and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as we might or could do in person, hereby ratifying and confirming all that each of said attorney-in-fact or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof. Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Daniel Jones Daniel Jones	Chief Executive Officer and Director *(Principal Executive Officer)*	April 19, 2019
/s/ John Kennedy John W. Kennedy	Chief Financial Officer and Secretary *(Principal Financial and Accounting Officer)*	April 19, 2019
/s/ William St. Laurent William C. St. Laurent	Director	April 19, 2019
/s/ Douglas Miscoll Douglas Miscoll	Director	April 19, 2019
/s/ David Pfeffer David Pfeffer	Director	April 19, 2019

Exhibit 3.1

CERTIFICATE OF AMENDMENT
OF
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
SEQLL INC.

The undersigned, Daniel Jones, hereby certifies that:

1. He is the duly elected and acting Chief Executive Officer of SeqLL Inc., a Delaware corporation.

2. That the name of this corporation is SeqLL Inc. and that this corporation was originally incorporated pursuant to the General Corporation Law on April 3, 2014 under the name SeqLL Inc.

3. Pursuant to Section 242 of the General Corporation Law of the State of Delaware, this Certificate of Amendment of Amended and Restated Certificate of Incorporation amends this corporation's Certificate of Incorporation as follows:

(i) Part A of Article Fourth of this corporation's Amended and Restated Certificate of Incorporation is hereby amended to add the following Subsection 3:

> Upon the filing and effectiveness (the "Effective Time") pursuant to the Delaware General Corporation Law of this Amendment to the Amended and Restated Certificate of Incorporation of this corporation, each 1.85 shares of Common Stock either issued and outstanding or held by this corporation in treasury stock immediately prior to the Effective Time shall, automatically and without any action on the part of the respective holders thereof, be combined and converted into one (1) share of Common Stock (the "Reverse Stock Split"). No fractional shares shall be issued in connection with the Reverse Stock Split. Stockholders who otherwise would be entitled to receive fractional shares of Common Stock shall be entitled to receive cash (without interest or deduction) from the corporation's transfer agent in lieu of such fractional share interests upon the submission of a transmission letter by a stockholder holding the shares in book-entry form and, where shares are held in certificated form, upon the surrender of the stockholder's Old Certificates (as defined below), in an amount equal to the product obtained by multiplying (a) four dollars ($4.00), by (b) the fraction of one share owned by the stockholder. Each certificate that immediately prior to the Effective Time represented shares of Common Stock ("Old Certificates"), shall thereafter represent that number of shares of Common Stock into which the shares of Common Stock represented by the Old Certificate shall have been combined, subject to the elimination of fractional share interests as described above.

4. The foregoing Certificate of Amendment has been duly adopted by this corporation's Board of Directors and stockholders in accordance with the applicable provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware.

Signature appears on following page

IN WITNESS WHEREOF, SeqLL Inc. has caused this Certificate of Amendment of Amended and Restated Certificate of Incorporation to be signed by its Chief Executive Officer this 17th day, April, 2019.

By: /s/ Daniel Jones

Daniel Jones, Chief Executive Officer

CERTIFICATE OF AMENDMENT
OF
AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
SEQLL INC.

The undersigned, Elizabeth Reczek, hereby certifies that:

1. She is the duly elected and acting Chief Executive Officer of SeqLL Inc., a Delaware corporation.

2. That the name of this corporation is SeqLL Inc. and that this corporation was originally incorporated pursuant to the General Corporation Law on April 3, 2014 under the name SeqLL Inc.

3. Pursuant to Section 242 of the General Corporation Law of the State of Delaware, this Certificate of Amendment of Amended and Restated Certificate of Incorporation amends this corporation's Certificate of Incorporation as follows:

(i) Article Fourth of this corporation's Certificate of Incorporation is hereby amended and restated as follows, with the remainder of such Article to remain unchanged except as otherwise provided by this Certificate of Amendment:

> "FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 20,299,261 shares of Common Stock, $0.00001 par value per share ("**Common Stock**") and (ii) 8,779,762 shares of Preferred Stock, $0.00001 par value per share ("**Preferred Stock**"), of which (A) 3,125,000 shares have been designated "**Series A-1 Preferred Stock,**" and (B) 5,654,762 shares are hereby designated "**Series A-2 Preferred Stock.**"

(ii) Subsection 3.2 in Part B of Article Fourth of this corporation's Certificate of Incorporation is hereby amended to add the following sentence to the end of such Subsection 3.2:

> "In the event of any deadlock or tie with respect to matters voted upon by the directors, the Chairperson of the Board of Directors (who shall be a director and elected in accordance with the Corporation's Bylaws) shall, solely for purposes of breaking such deadlock or tie, be entitled to cast an additional vote on such matter to break such deadlock or tie."

4. The foregoing Certificate of Amendment has been duly adopted by this corporation's Board of Directors and stockholders in accordance with the applicable provisions of Sections 228 and 242 of the General Corporation Law of the State of Delaware.

State of Delaware
Secretary of State
Division of Corporations
Delivered 02:30 PM 01/23/2018
FILED 02:30 PM 01/23/2018
SR 20180433688 - File Number 5510849

IN WITNESS WHEREOF, SeqLL lnc. has caused this Certificate of Amendment of Amended and Restated Certificate of Incorporation to be signed by its Chief Executive Officer this 19th day, January, 2018.

By: /s/ Elizabeth Reczek

Elizabeth Reczek, Chief Executive Officer

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
SEQLL INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

SeqLL Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"),

DOES HEREBY CERTIFY:

1. That the name of this corporation is SeqLL Inc. and that this corporation was originally incorporated pursuant to the General Corporation Law on April 3, 2014 under the name SeqLL Inc.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is SeqLL Inc. (the "**Corporation**").

SECOND: The address of the registered office of the Corporation in the State of Delaware 2711 Centerville Road, Suite 400, City of Wilmington, County of New Castle, Delaware 19808. The name of its registered agent at such address is Corporation Service Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 15,071,428 shares of Common Stock, $0.00001 par value per share ("**Common Stock**") and (ii) 4,017,857 shares of Preferred Stock, $0.00001 par value per share ("**Preferred Stock**"), **of which (A) 3,125,000 shares have been designated** "**Series A-1 Preferred Stock**," and (B) 892,857 shares are hereby designated "**Series A-2 Preferred Stock.**"

State of Delaware
Secretary of State
Division of Corporations
Delivered 08:28 AM 02/18/2016
FILED 08:28 AM 02/18/2016
SR 20160904956 - File Number 5510849

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of the Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

The Preferred Stock shall have the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to "sections" or "subsections" in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth.

1. Dividends.

1.1 The holders of shares of Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock of this corporation) on the Common Stock of this corporation, at the applicable Dividend Rate (as defined below), payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative. The holders of the outstanding Preferred Stock can waive any dividend preference that such holders shall be entitled to receive under this Section 1 upon the affirmative vote or written consent of the holders of a majority of the shares of the Preferred Stock then outstanding (voting together as a single class and not as separate series, and on an as-converted basis). For purposes of this subsection 1.1, "**Dividend Rate**" shall mean $0.0256 per annum for each share of Series A-1 Preferred Stock, and $0.1344 per annum for each share of Series A-2 Preferred Stock (as adjusted for any stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like). The "**Series A-1 Original Issue Price**" shall mean $0.32 per share, and the **Series A-2 Original Issue Price**" shall mean $1.68 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such Preferred Stock.

1.2 After payment of such dividends, any additional dividends or distributions shall be distributed among all holders of Common Stock and Preferred Stock in proportion to the number of shares of Common Stock that would be held by each such holder if all shares of Preferred Stock were converted to Common Stock at the then effective conversion rate.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Preferential Payments to Holders of Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the holders of shares of Series A-1 Preferred Stock and Series A-2 Preferred Stock then outstanding shall be entitled to be paid, on a pari passu basis, out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to the greater of (i) in the case of the Series A-1 Preferred Stock, one times the Series A-1 Original Issue Price, plus any dividends declared but unpaid thereon, and in the case of the Series A-2 Preferred Stock, one times the Series A-2 Original Issue Price, plus any dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had each share of each series of Preferred Stock been converted into Common Stock pursuant to Section 4 immediately prior to such liquidation, dissolution, winding up or Deemed Liquidation Event (the amounts payable pursuant to this sentence is hereinafter referred to as the "**Series A-1 Liquidation Amount**" with respect to the Series A-1 Preferred Stock, and the "**Series A-2 Liquidation Amount**" with respect to the Series A-2 Preferred Stock). If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Preferred Stock the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.2 Payments to Holders of Common Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, after the payment of all preferential amounts required to be paid to the holders of shares of Preferred Stock, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of shares of Common Stock, pro rata based on the number of shares held by each such holder.

2.3 Deemed Liquidation Events.

2.3.1 Definition. Each of the following events shall be considered a "**Deemed Liquidation Event**" unless the holders of a majority of the outstanding shares of Preferred Stock elect otherwise by written notice sent to the Corporation:

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation, except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least 50%, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or the sale or disposition (whether by merger, consolidation or otherwise) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation;

Provided, however, that (x) a transaction shall not constitute a Deemed Liquidation Event if its sole purpose is to change the state of this corporation's incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held this corporation's securities immediately prior to such transaction and (y) a bona fide equity financing will not constitute a Deemed Liquidation Event.

2.3.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Subsection 2.3.1(a)(i) unless the agreement or plan of merger or consolidation for such transaction (the "**Merger Agreement**")provides that the consideration payable to the stockholders of the Corporation shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1 and 2.2.

(b) In the event of a Deemed Liquidation Event referred to in Subsection 2.3.1(a)(ii) or 2.3.1(b), if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within ninety (90) days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Preferred Stock no later than the ninetieth (90^{th}) day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause; (ii) to require the redemption of such shares of Preferred Stock, and (iii) if the holders of a majority of the then outstanding shares of Preferred Stock so request in a written instrument delivered to the Corporation not later than one hundred twenty (120) days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation), together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders (the "**Available Proceeds**"), on the one hundred fiftieth (150^{th}) day after such Deemed Liquidation Event, to redeem all outstanding shares of Preferred Stock at a price per share equal to, in the case of Series A-1 Preferred Stock, the Series A-1 Liquidation Amount, and in the case of Series A-2 Preferred Stock, the Series A-2 Liquidation Amount. Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Available Proceeds are not sufficient to redeem all outstanding shares of Preferred Stock, the Corporation shall ratably redeem each holder's shares of Preferred Stock to the fullest extent of such Available Proceeds, and shall redeem the remaining shares as soon as it may lawfully do so under Delaware law governing distributions to stockholders.

(i) Each Redemption Notice shall state: (A) the number of shares of Preferred Stock held by the holder that the Corporation will redeem; (B) the date for redemption and amount to be paid pursuant to such holder; and (C) that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Preferred Stock to be redeemed.

(ii) On or before the redemption date, each holder of shares of Preferred Stock to be redeemed shall surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Available Proceeds for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof. Prior to the distribution or redemption provided for in this Subsection 2.3.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

2.3.3 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, other disposition or redemption shall be the cash or the value of the property, rights or securities paid or distributed to such holders by the Corporation or the acquiring person, firm or other entity. The value of such property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of the Certificate of Incorporation, holders of Series A-1 Preferred Stock and Series A-2 Preferred Stock shall vote together with the holders of Common Stock as a single class.

3.2 Election of Directors. The holders of record of the shares of Series A-1 Preferred Stock and Series A-2 Preferred Stock, voting together as a separate class, shall be entitled to elect two (2) directors of the Corporation (the "**Preferred Directors**"). The holders of record of the shares of Common Stock, exclusively and as a separate class, shall be entitled to elect one (1) director of the Corporation. Any director elected as provided in the preceding sentences may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. If the holders of shares of Preferred Stock or Common Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Subsection 3.2, then any directorship not so filled shall remain vacant until such time as the holders of the Preferred Stock or Common Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Preferred Stock), exclusively and voting together as a single class, shall be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Subsection 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3.2. The rights of the holders of the Series A-1 Preferred Stock and the Series A-2 Preferred Stock under the first sentence of this Subsection 3.2 shall terminate on the first date following the Series A-2 Original Issue Date (as defined below) on which there are issued and outstanding less than an aggregate of 390,625 shares of Series A-1 Preferred Stock and Series A-2 Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, or other similar recapitalization with respect to the Series A-1 Preferred Stock and/or Series A-2 Preferred Stock).

3.3 Preferred Stock Protective Provisions. At any time when at least 781,250 shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock) are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or the Certificate of Incorporation) the written consent or affirmative vote of the holders of a majority of the then outstanding shares of Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) together as a single class, and any such act or transaction entered into without such consent or vote shall be null and *void ab* initio, and of no force or effect:

3.3.1 make any voluntary petition for bankruptcy or assignment for the benefit of creditors, or consummate a Deemed Liquidation Event or merge with another entity other than a wholly-owned subsidiary of the corporation;

3.3.2 amend, alter or repeal any provision of the Certificate of Incorporation or Bylaws of the Corporation (except with the unanimous approval of the Board of Directors);

3.3.3 create, or authorize the creation of any additional class or series of capital stock unless the same ranks junior to the Preferred Stock with respect to the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends and rights of redemption;

3.3.4 increase the authorized number of shares of Preferred Stock;

3.3.5 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock and (iii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof or (iv) as approved by the Board of Directors;

3.3.6 sell, transfer, license, pledge or encumber any material intellectual property or other material assets of the Company, other than (i) in the ordinary course of business, or (ii) upon the prior approval of the Board of Directors, including the approval of the Preferred Directors;

4. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

4.1 Right to Convert.

4.1.1 Conversion Ratio. Each share of Series A-1 Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the Series A-1 Original Issue Price by the Series A-1 Conversion Price (as defined below) in effect at the time of conversion. Each share of Series A-2 Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the Series A-2 Original Issue Price by the Series A- 2 Conversion Price (as defined below) in effect at the time of conversion. The "**Series A-1 Conversion Price**" shall initially be equal to $0.32, and the "**Series A-2 Conversion Price**" shall initially be equal to $1.68. Such initial Series A-1 Conversion Price, and initial Series A-2 Conversion Price, and the rates at which shares of Series A-1 Preferred Stock and of Series A-2 Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

4.1.2 Termination of Conversion Rights. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Stock.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors of the Corporation. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall (a) provide written notice to the Corporation's transfer agent at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder's shares of Preferred Stock and, if applicable, any event on which such conversion is contingent and (b), if such holder's shares are certificated, surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder's name or the names of the nominees in which such holder wishes the shares of Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such notice and, if applicable, certificates (or lost certificate affidavit and agreement) shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the specified shares shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to the Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the Series A-1 Conversion Price or Series A-2 Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the Series A-1 Preferred Stock or Series A-2 Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of Common Stock at such adjusted Series A-1 Conversion Price or Series A-2 Conversion Price.

4.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Subsection 4.2 and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the Series A-1 Conversion Price or Series A-2 Conversion Price shall be made for any declared but unpaid dividends on the Series A-1 Preferred Stock or Series A-2 Preferred Stock, as applicable, surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Conversion Prices for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) "**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(b) "**Series A-2 Original Issue Date**" shall mean the date on which the first share of Series A-2 Preferred Stock was issued.

(c) "**Convertible Securities**" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(d) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) by the Corporation after the Series A-2 Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "**Exempted Securities**"):

(i) shares of Common Stock, Options or Convertible Securities issued upon conversion of or as a dividend or distribution on Preferred Stock;

(ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4.5, 4.6, 4.7 or 4.8;

(iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation, including all Preferred Directors;

(iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(v) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors of the Corporation, including all Preferred Directors;

(vi) shares of Common Stock, Options or Convertible Securities issued pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided that such issuances are approved by the Board of Directors of the Corporation, including all Preferred Directors;

(viii) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the Board, including all Preferred Directors;

(vii) shares of Common Stock, Options or Convertible Securities issued to persons or entities with which this corporation has business relationships, provided such issuances are approved by approved by the Board of Directors of the Corporation, including the Preferred Directors, and are primarily for non-equity financing purposes.

4.4.2 No Adjustment of Conversion Prices. No adjustment in the Series A-1 Conversion Price or Series A-2 Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the holders of a majority of the then outstanding shares of Preferred Stock agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Series A-2 Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the Series A-1 Conversion Price or Series A-2 Conversion Price pursuant to the terms of Subsection 4.4.4, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Series A-1 Conversion Price or Series A-2 Conversion Price, as the case may be, computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Series A-1 Conversion Price or Series A-2 Conversion Price, as applicable, as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Series A-1 Conversion Price or Series A-2 Conversion Price, as the case may be, to an amount which exceeds the lower of (i) the Series A-1 Conversion Price or the Series A-2 Conversion Price, as applicable, in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the Series A-1 Conversion Price or the Series A-2 Conversion Price, as applicable, that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the Series A-1 Conversion Price or the Series A-2 Conversion Price pursuant to the terms of Subsection 4.4.4 (either because the consideration per share (determined pursuant to Subsection 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Series A-1 Conversion Price or the Series A-2 Conversion Price, as the case may be, then in effect, or because such Option or Convertible Security was issued before the Series A-2 Original Issue Date), are revised after the Series A-2 Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4.4.3(a) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the Series A-1 Conversion Price or Series A-2 Conversion Price, as the case may be, pursuant to the terms of Subsection 4.4.4. the Series A-1 Conversion Price and/or Series A-2 Conversion Price, as the case may be, shall be readjusted to such Series A-1 Conversion Price or Series A-2 Conversion Price, as applicable, as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the Series A-1 Conversion Price or Series A-2 Conversion Price provided for in this Subsection 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Subsection 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the Series A-1 Conversion Price or Series A-2 Conversion Price that would result under the terms of this Subsection 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the Series A-1 Conversion Price or Series A-2 Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Conversion Prices Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Series A-2 Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Series A-1 Conversion Price or Series A-2 Conversion Price, each as in effect immediately prior to such issue, then the Series A-1 Conversion Price and/or Series A-2 Conversion Price, as the case may be, shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) - (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(a) "CP_2" shall mean (x) in the case of an adjustment to the Series A-1 Conversion Price, the Series A-1 Conversion Price in effect immediately after such issue of Additional Shares of Common Stock, and (y) in the case of an adjustment to the Series A-2 Conversion Price, the Series A-2 Conversion Price in effect immediately after such issue of Additional Shares of Common Stock;

(b) "CP_1" shall mean (x) in the case of an adjustment to the Series A-1 Conversion Price, the Series A-1 Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock, and (y) in the case of an adjustment to the Series A-2 Conversion Price, the Series A-2 Conversion Price in effect immediately prior to such issue of Additional Shares of Common Stock;

(c) "A" shall mean the number of shares of Common Stock outstanding immediately prior to such issue of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issue or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(d) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(e) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Subsection 4.4, the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors of the Corporation.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

(i) The total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the Series A-1 Conversion Price or the Series A-2 Conversion Price pursuant to the terms of Subsection 4.4.4, then, upon the final such issuance, the Series A-1 Conversion Price and/or Series A-2 Conversion Price, as the case may be, shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series A-2 Original Issue Date effect a subdivision of the outstanding Common Stock, the Series A-1 Conversion Price and Series A-2 Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series A-2 Original Issue Date combine the outstanding shares of Common Stock, the Series A-1 Conversion Price and Series A-2 Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series A-2 Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the Series A-1 Conversion Price and Series A-2 Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Series A-1 Conversion Price and Series A-2 Conversion Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Series A-1 Conversion Price and Series A-2 Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Series A-1 Conversion Price and the Series A-2 Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of Series A-1 Preferred Stock or Series A-2 Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Series A-1 Preferred Stock or Series A-2 Preferred Stock, as the case may be, had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series A-2 Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Series A-1 Preferred Stock and Series A-2 Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Series A-1 Preferred Stock and Series A-2 Preferred Stock had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the applicable series of Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Series A-1 Conversion Price or Series A-2 Conversion Price, as the case may be) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the applicable series of Preferred Stock.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Series A-1 Conversion Price or Series A-2 Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Series A-1 Preferred Stock or Series A-2 Preferred Stock, as applicable, a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Series A-1 Preferred Stock or the Series A-2 Preferred Stock, as applicable, is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Series A-1 Preferred Stock or Series A-2 Preferred Stock (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Series A-1 Conversion Price or Series A-2 Conversion Price, as applicable, then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Series A-1 Preferred Stock or Series A-2 Preferred Stock, as applicable.

4.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation, then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least ten (10) days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events. Upon either (a) the closing of the sale of shares of Common Stock to the public at a price per share equal to at least $5.00 (as adjusted for stock splits, stock dividends, recapitalizations and the like) in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least $10,000,000 of gross proceeds, (excluding the underwriting discounts and commissions to the Corporation) or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the holders of at least a majority of the then outstanding shares of Preferred Stock, voting together as a single class (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "**Mandatory Conversion Time**")**,** (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate and (ii) such shares may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Subsection 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Subsection 5.2. As soon as practicable after the Mandatory Conversion Time and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and (b)pay cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

6. Redemption.

6.1 General. Unless prohibited by Delaware law governing distributions to stockholders, shares of Series A-1 Preferred Stock shall be redeemed by the Corporation at a price equal to the Series A-1 Original Issue Price per share, plus all declared but unpaid dividends thereon (the "**Series A-1 Redemption Price**"), and shares of Series A-2 Preferred Stock shall be redeemed by the Corporation at a price equal to the Series A-2 Original Issue Price per share, plus all declared but unpaid dividends thereon (the "**Series A-2 Redemption Price**"), in three (3) annual installments commencing not more than sixty (60) days after receipt by the Corporation at any time on or after the fifth (5th) anniversary of the Series A-2 Original Issue Date, from the holders of a majority of the then outstanding shares of Preferred Stock, voting together as a single class, of written notice requesting redemption of all shares of Preferred Stock (the "**Redemption Request**"). Upon receipt of a Redemption Request, the Corporation shall apply all of its assets to any such redemption, and to no other corporate purpose, except to the extent prohibited by Delaware law governing distributions to stockholders. The date of each such installment shall be referred to as a "**Redemption Date.**" On each Redemption Date, the Corporation shall redeem, on a pro rata basis in accordance with the number of shares of Preferred Stock owned by each holder, that number of outstanding shares of Preferred Stock determined by dividing (i) the total number of shares of Preferred Stock outstanding immediately prior to such Redemption Date by (ii) the number of remaining Redemption Dates (including the Redemption Date to which such calculation applies); provided, however, that Excluded Shares (as such term is defined in Subsection 6.2) shall not be redeemed and shall be excluded from the calculations set forth in this sentence. If on any Redemption Date Delaware law governing distributions to stockholders prevents the Corporation from redeeming all shares of Preferred Stock to be redeemed, the Corporation shall ratably redeem the maximum number of shares that it may redeem consistent with such law, and shall redeem the remaining shares as soon as it may lawfully do so under such law.

6.2 Redemption Notice. The Corporation shall send written notice of the mandatory redemption (the "**Redemption Notice**")to each holder of record of Preferred Stock not less than forty (40) days prior to each Redemption Date. Each Redemption Notice shall state:

(a) the number of shares of Series A-1 Preferred Stock and/or Series A-2 Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;

(b) the Redemption Date and the Series A-1 Redemption Price, and/or Series A-2 Redemption Price, as applicable;

(c) the date upon which the holder's right to convert such shares terminates (as determined in accordance with Subsection 4.1); and

(d) for holders of shares in certificated form, that the holder is to surrender to the Corporation, in the manner and at the place designated, his, her or its certificate or certificates representing the shares of Preferred Stock to be redeemed.

If the Corporation receives, on or prior to the twentieth (20^{th}) day after the date of delivery of the Redemption Notice to a holder of Preferred Stock, written notice from such holder that such holder elects to be excluded from the redemption provided in this Section 6, then the shares of Preferred Stock registered on the books of the Corporation in the name of such holder at the time of the Corporation's receipt of such notice shall thereafter be "**Excluded Shares.**" Excluded Shares shall not be redeemed or redeemable pursuant to this Section 6, whether on such Redemption Date or thereafter.

6.3 Surrender of Certificates; Payment. On or before the applicable Redemption Date, each holder of shares of Preferred Stock to be redeemed on such Redemption Date, unless such holder has exercised his, her or its right to convert such shares as provided in Section 4, shall, if a holder of shares in certificated form, surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon the Series A-1 Redemption Price or Series A-2 Redemption Price, as applicable, for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof. In the event less than all of the shares of Preferred Stock represented by a certificate are redeemed, a new certificate, instrument, or book entry representing the unredeemed shares of Preferred Stock shall promptly be issued to such holder.

6.4 Rights Subsequent to Redemption. If the Redemption Notice shall have been duly given, and if on the applicable Redemption Date the Series A-1 Redemption Price or Series A-2 Redemption Price, as applicable, payable upon redemption of the shares of Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that any certificates evidencing any of the shares of Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of 1 Preferred Stock shall cease to accrue after such Redemption Date and all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Redemption Price without interest upon surrender of any such certificate or certificates therefor.

7. Redeemed or Otherwise Acquired Shares. Any shares of Preferred Stock that are redeemed or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following redemption.

8. Waiver. Unless a different vote is specified in the Certificate of Incorporation: (a) any of the rights, powers, preferences and other terms of the Series A-1 Preferred Stock set forth herein may be waived on behalf of all holders of Series A-1 Preferred Stock by the affirmative written consent or vote of the holders of a majority of the shares of Series A-1 Preferred Stock then outstanding, (b) any of the rights, powers, preferences and other terms of the Series A-2 Preferred Stock set forth herein may be waived on behalf of all holders of Series A-2 Preferred Stock by the affirmative written consent or vote of the holders of a majority of the shares of Series A-2 Preferred Stock then outstanding, and (c) any of the rights, powers, preferences and other terms of the Preferred Stock set forth herein may be waived on behalf of all holders of Preferred Stock by the affirmative written consent or vote of the holders of a majority of the shares of Preferred Stock, voting as a single class, then outstanding.

9. Notices. Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: Subject to any additional vote required by the Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SIXTH: Subject to any additional vote required by the Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

SEVENTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

EIGHTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

NINTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

TENTH: To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) directors, officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Tenth shall not adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification.

ELEVENTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising pursuant to any provision of the Delaware General Corporation Law or the Corporation's certificate of incorporation or bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article Eleventh shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Eleventh (including, without limitation, each portion of any sentence of this Article Eleventh containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

TWELFTH: For purposes of Section 500 of the California Corporations Code (to the extent applicable), in connection with any repurchase of shares of Common Stock permitted under this Certificate of Incorporation from employees, officers, directors or consultants of the Company in connection with a termination of employment or services pursuant to agreements or arrangements approved by the Board of Directors (in addition to any other consent required under this Certificate of Incorporation), such repurchase may be made without regard to any "preferential dividends arrears amount" or "preferential rights amount" (as those terms are defined in Section 500 of the California Corporations Code). Accordingly, for purposes of making any calculation under California Corporations Code Section 500 in connection with such repurchase, the amount of any "preferential dividends arrears amount" or "preferential rights amount" (as those terms are defined therein) shall be deemed to be zero (0).

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this Corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 18th day of February, 2016.

By: /s/ Elizabeth Reczek
Elizabeth Reczek, Chief Executive Officer

Exhibit 3.2

BYLAWS OF

SEQLL INC.

Adopted April 4, 2014

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BYLAWS

ARTICLE I — MEETINGS OF STOCKHOLDERS

1.1 ***Place of Meetings***. Meetings of stockholders of **SeqLL Inc.** (the "**Company**") shall be held at any place, within or outside the State of Delaware, determined by the Company's board of directors (the "**Board**"). The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the "**DGCL**"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Company's principal executive office.

1.2 ***Annual Meeting***. An annual meeting of stockholders shall be held for the election of directors at such date and time as may be designated by resolution of the Board from time to time. Any other proper business may be transacted at the annual meeting. The Company shall not be required to hold an annual meeting of stockholders, *provided* that (i) the stockholders are permitted to act by written consent under the Company's certificate of incorporation and these bylaws, (ii) the stockholders take action by written consent to elect directors and (iii) the stockholders unanimously consent to such action or, if such consent is less than unanimous, all of the directorships to which directors could be elected at an annual meeting held at the effective time of such action are vacant and are filled by such action.

1.3 ***Special Meeting***. A special meeting of the stockholders may be called at any time by the Board, Chairperson of the Board, Chief Executive Officer or President (in the absence of a Chief Executive Officer) or by one or more stockholders holding shares in the aggregate entitled to cast not less than 10% of the votes at that meeting.

If any person(s) other than the Board calls a special meeting, the request shall:

(i) be in writing;

(ii) specify the time of such meeting and the general nature of the business proposed to be transacted; and

(iii) be delivered personally or sent by registered mail or by facsimile transmission to the Chairperson of the Board, the Chief Executive Officer, the President (in the absence of a Chief Executive Officer) or the Secretary of the Company.

The officer(s) receiving the request shall cause notice to be promptly given to the stockholders entitled to vote at such meeting, in accordance with the provisions of **sections 1.4** and **1.5** of these bylaws, that a meeting will be held at the time requested by the person or persons calling the meeting. No business may be transacted at such special meeting other than the business specified in such notice to stockholders. Nothing contained in this paragraph of this **section 1.3** shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

1.4 ***Notice of Stockholders' Meetings***. All notices of meetings of stockholders shall be sent or otherwise given in accordance with either **section 1.5** or **section 7.1** of these bylaws not less than 10 or more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. The notice shall specify the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called.

1.5 ***Manner of Giving Notice; Affidavit of Notice***. Notice of any meeting of stockholders shall be given:

(i) if mailed, when deposited in the United States mail, postage prepaid, directed to the stockholder at his or her address as it appears on the Company's records; or

(ii) if electronically transmitted as provided in **section 7.1** of these bylaws.

An affidavit of the Secretary or an Assistant Secretary of the Company or of the transfer agent or any other agent of the Company that the notice has been given by mail or by a form of electronic transmission, as applicable, shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

1.6 ***Quorum***. Except as otherwise provided by law, the certificate of incorporation or these bylaws, at each meeting of stockholders the presence in person or by proxy of the holders of shares of stock having a majority of the votes which could be cast by the holders of all outstanding shares of stock entitled to vote at the meeting shall be necessary and sufficient to constitute a quorum. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting, or (ii) the stockholders entitled to vote at the meeting, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, in the manner provided in **section 1.7**, until a quorum is present or represented.

1.7 ***Adjourned Meeting; Notice***. Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Company may transact any business which might have been transacted at the original meeting. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

1.8 ***Conduct of Business***. Meetings of stockholders shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in the absence of the foregoing persons by the Chief Executive Officer, or in the absence of the foregoing persons by the President, or in the absence of the foregoing persons by a Vice President, or in the absence of the foregoing persons by a chairperson designated by the Board, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting. The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

1.9 ***Voting***. The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of **section 1.11** of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation, each stockholder entitled to vote at any meeting of stockholders shall be entitled to one vote for each share of capital stock held by such stockholder which has voting power upon the matter in question. Voting at meetings of stockholders need not be by written ballot and, unless otherwise required by law, need not be conducted by inspectors of election unless so determined by the holders of shares of stock having a majority of the votes which could be cast by the holders of all outstanding shares of stock entitled to vote thereon which are present in person or by proxy at such meeting. If authorized by the Board, the requirement of a written ballot for the election of directors shall be satisfied by a ballot submitted by electronic transmission (as defined in **section 7.2** of these bylaws), *provided* that any such electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the stockholder or proxy holder.

At all meetings of stockholders for the election of directors a plurality of the votes cast shall be sufficient to elect. All other elections and questions shall, unless otherwise provided by law, the certificate of incorporation or these bylaws, be decided by the vote of the holders of shares of stock having a majority of the votes which could be cast by the holders of all shares of stock entitled to vote thereon which are present in person or represented by proxy at the meeting.

1.10 ***Stockholder Action by Written Consent Without a Meeting***. Unless otherwise provided in the certificate of incorporation, any action required by the DGCL to be taken at any annual or special meeting of stockholders of a corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice, and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the Company as provided in Section 228 of the DGCL. In the event that the action which is consented to is such as would have required the filing of a certificate under any provision of the DGCL, if such action had been voted on by stockholders at a meeting thereof, the certificate filed under such provision shall state, in lieu of any statement required by such provision concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

1.11 ***Record Date for Stockholder Notice; Voting; Giving Consents***. In order that the Company may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board and which record date:

(i) in the case of determination of stockholders entitled to notice of or to vote at any meeting of stockholders or adjournment thereof, shall, unless otherwise required by law, not be more than sixty nor less than ten days before the date of such meeting;

(ii) in the case of determination of stockholders entitled to express consent to corporate action in writing without a meeting, shall not be more than ten days after the date upon which the resolution fixing the record date is adopted by the Board; and

(iii) in the case of determination of stockholders for any other action, shall not be more than sixty days prior to such other action.

If no record date is fixed by the Board:

(i) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held;

(ii) the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting when no prior action of the Board is required by law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the Company in accordance with applicable law, or, if prior action by the Board is required by law, shall be at the close of business on the day on which the Board adopts the resolution taking such prior action; and

(iii) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting, *provided* that the Board may fix a new record date for the adjourned meeting.

1.12 ***Proxies***. Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL.

1.13 ***List of Stockholders Entitled to Vote***. The officer who has charge of the stock ledger of the Company shall prepare and make, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The Company shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least 10 days prior to the meeting: (i) on a reasonably accessible electronic network, *provided* that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the Company's principal executive office. In the event that the Company determines to make the list available on an electronic network, the Company may take reasonable steps to ensure that such information is available only to stockholders of the Company. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Such list shall presumptively determine the identity of the stockholders entitled to vote at the meeting and the number of shares held by each of them.

ARTICLE II — DIRECTORS

2.1 ***Powers***. Subject to the provisions of the DGCL and any limitations in the certificate of incorporation or these bylaws relating to action required to be approved by the stockholders or by the outstanding shares, the business and affairs of the Company shall be managed and all corporate powers shall be exercised by or under the direction of the Board.

2.2 ***Number of Directors***. The number of directors shall be determined from time to time by resolution of the Board, *provided* that the Board shall consist of at least one (1) member. No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

2.3 ***Election, Qualification and Term of Office of Directors***. Except as provided in **section 2.4** of these bylaws, directors shall be elected at each annual meeting of stockholders to hold office until the next annual meeting. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors. Each director, including a director elected to fill a vacancy, shall hold office until such director's successor is elected and qualified or until such director's earlier death, resignation or removal.

2.4 ***Resignation and Vacancies***. Any director may resign at any time upon notice given in writing or by electronic transmission to the Company. When one or more directors so resigns and the resignation is effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each director so chosen shall hold office as provided in this section in the filling of other vacancies.

Unless otherwise provided in the certificate of incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the Company should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the DGCL.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board (as constituted immediately prior to any such increase), then the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the total number of the shares at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

2.5 ***Place of Meetings; Meetings by Telephone***. The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

2.6 ***Conduct of Business***. Meetings of the Board shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in the absence of the foregoing persons by a chairperson designated by the Board, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting.

2.7 ***Regular Meetings***. Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

2.8 ***Special Meetings; Notice***. Special meetings of the Board for any purpose or purposes may be called at any time by the Chairperson of the Board, the Chief Executive Officer, the President, the Secretary or any two directors.

Notice of the time and place of special meetings shall be:

(i) delivered personally by hand, by courier or by telephone;

(ii) sent by United States first-class mail, postage prepaid;

(iii) sent by facsimile; or

(iv) sent by electronic mail,

directed to each director at that director's address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the Company's records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least 24 hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Company's principal executive office) nor the purpose of the meeting.

2.9 ***Quorum***. At all meetings of the Board, a majority of the total number of directors shall constitute a quorum for the transaction of business. The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present.

A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

2.10 ***Board Action by Written Consent Without a Meeting***. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

2.11 ***Fees and Compensation of Directors***. Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

2.12 ***Approval of Loans to Officers***. The Company may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the Company or of its subsidiary, including any officer or employee who is a director of the Company or its subsidiary, whenever, in the judgment of the Board, such loan, guaranty or assistance may reasonably be expected to benefit the Company. The loan, guaranty or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board shall approve, including, without limitation, a pledge of shares of stock of the Company.

2.13 ***Removal of Directors***. Unless otherwise restricted by statute, the certificate of incorporation or these bylaws, any director or the entire Board may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE III — COMMITTEES

3.1 ***Committees of Directors***. The Board may designate one or more committees, each committee to consist of one or more of the directors of the Company. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Company, and may authorize the seal of the Company to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the Company,

3.2 ***Committee Minutes***. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

3.3 ***Meetings and Action of Committees***. Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(i) **section 2.5** (Place of Meetings; Meetings by Telephone);

(ii) **section 2.7** (Regular Meetings);

(iii) **section 2.8** (Special Meetings; Notice);

(iv) **section 2.9** (Quorum);

(v) **section 2.10** (Board Action by Written Consent Without a Meeting); and

(vi) **section 6.10** (Waiver of Notice)

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. *However*:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

ARTICLE IV — OFFICERS

4.1 ***Officers***. The officers of the Company shall be a Chairperson of the Board, a President or Chief Executive Officer, a Secretary and a Treasurer or Chief Financial Officer. The Company may also have, at the discretion of the Board, a Vice Chairperson of the Board, one or more Vice Presidents, one or more Assistant Treasurers, one or more Assistant Secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

4.2 ***Appointment of Officers***. The Board shall appoint the officers of the Company, except such officers as may be appointed in accordance with the provisions of **sections 4.3** and **4.5** of these bylaws, subject to the rights, if any, of an officer under any contract of employment.

4.3 ***Subordinate Officers***. The Board may appoint, or empower the Chief Executive Officer or, in the absence of a Chief Executive Officer, the President, to appoint, such other officers and agents as the business of the Company may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board may from time to time determine.

4.4 ***Removal and Resignation of Officers***. Subject to the rights, if any, of an officer under any contract of employment, any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Company. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Company under any contract to which the officer is a party.

4.5 ***Vacancies in Offices***. Any vacancy occurring in any office of the Company shall be filled by the Board or as provided in **section 4.2**.

4.6 ***Representation of Shares of Other Corporations***. Unless otherwise directed by the Board, the President or any other person authorized by the Board or the President is authorized to vote, represent and exercise on behalf of the Company all rights incident to any and all shares of any other corporation or corporations standing in the name of the Company. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

4.7 ***Authority and Duties of Officers***. Except as otherwise provided in these bylaws, the officers of the Company shall have such powers and duties in the management of the Company as may be designated from time to time by the Board and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board.

ARTICLE V — RECORDS AND REPORTS

5.1 ***Maintenance and Inspection of Records***. The Company shall, either at its principal executive office or at such place or places as designated by the Board, keep a record of its stockholders listing their names and addresses and the number and class of shares held by each stockholder, a copy of these bylaws as amended to date, accounting books, and other records.

Any stockholder of record, in person or by attorney or other agent, shall, upon written demand under oath stating the purpose thereof, have the right during the usual hours for business to inspect for any proper purpose the Company's stock ledger, a list of its stockholders, and its other books and records and to make copies or extracts therefrom. A proper purpose shall mean a purpose reasonably related to such person's interest as a stockholder. In every instance where an attorney or other agent is the person who seeks the right to inspection, the demand under oath shall be accompanied by a power of attorney or such other writing that authorizes the attorney or other agent so to act on behalf of the stockholder. The demand under oath shall be directed to the Company at its registered office in Delaware or at its principal executive office.

5.2 ***Inspection by Directors***. Any director shall have the right to examine the Company's stock ledger, a list of its stockholders, and its other books and records for a purpose reasonably related to his or her position as a director. The Court of Chancery is hereby vested with the exclusive jurisdiction to determine whether a director is entitled to the inspection sought. The Court may summarily order the Company to permit the director to inspect any and all books and records, the stock ledger, and the stock list and to make copies or extracts therefrom. The Court may, in its discretion, prescribe any limitations or conditions with reference to the inspection, or award such other and further relief as the Court may deem just and proper.

5.3 ***Annual Report***. The Company shall cause an annual report to be sent to the stockholders of the Company to the extent required by applicable law. If and so long as there are fewer than 100 holders of record of the Company's shares, the requirement of sending of an annual report to the stockholders of the Company is expressly waived (to the extent permitted under applicable law).

ARTICLE VI — GENERAL MATTERS

6.1 ***Stock Certificates; Partly Paid Shares***. The shares of the Company shall be represented by certificates, *provided* that the Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Company. Notwithstanding the adoption of such a resolution by the Board, every holder of stock represented by certificates and upon request every holder of uncertificated shares shall be entitled to have a certificate signed by, or in the name of the Company by the Chairperson of the Board or Vice Chairperson of the Board, or the Chief Executive Officer or President or a Vice President, and by the Chief Financial Officer or Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Company representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Company with the same effect as if he were such officer, transfer agent or registrar at the date of issue.

The Company may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, upon the books and records of the Company in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Company shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

6.2 ***Special Designation on Certificates***. If the Company is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Company shall issue to represent such class or series of stock; *provided* that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the Company shall issue to represent such class or series of stock a statement that the Company will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

6.3 ***Lost Certificates***. Except as provided in this **section 6.3**, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Company and cancelled at the same time. The Company may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Company may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the Company a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

6.4 ***Construction; Definitions***. Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term "person" includes both a corporation and a natural person.

6.5 ***Dividends***. The Board, subject to any restrictions contained in either (i) the DGCL, or (ii) the certificate of incorporation, may declare and pay dividends upon the shares of its capital stock. Dividends may be paid in cash, in property, or in shares of the Company's capital stock.

The Board may set apart out of any of the funds of the Company available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve. Such purposes shall include but not be limited to equalizing dividends, repairing or maintaining any property of the Company, and meeting contingencies.

6.6 ***Fiscal Year***. The fiscal year of the Company shall be fixed by resolution of the Board and may be changed by the Board.

6.7 ***Seal***. The Company may adopt a corporate seal, which shall be in such form as may be approved from time to time by the Board. The Company may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

6.8 ***Stock Transfer Agreements***. The Company shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Company to restrict the transfer of shares of stock of the Company of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

6.9 ***Registered Stockholders***. The Company:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

6.10 ***Waiver of Notice***. Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

6.11 ***Restrictions on Transfer and Ownership of Capital Stock of the Company*.** Before a stockholder may transfer any of his, her, or its shares of capital stock of the Company, such stockholder must comply with the provisions of this Section 6.11, together with any other contractual restrictions on transfer as otherwise agreed by such stockholder (e.g., any right of first refusal and co-sale agreement in effect by and among the Company, such stockholder and certain holders of the Company's stock).

(i) ***Notice of Proposed Transfer***. Prior to the selling stockholder (for purposes of this Section 6.11, the "**Seller**") Transferring any of its shares (the "**Seller Shares**"), Seller shall deliver to the Company a written notice (the "**Transfer Notice**") stating: (a) Seller's *bona fide* intention to Transfer such Seller Shares; (b) the name, address and phone number of each proposed purchaser or other transferee (each, a "**Proposed Transferee**"); (c) the aggregate number of Seller Shares proposed to be Transferred to each Proposed Transferee (the "**Offered Shares**"); (d) the *bona fide* cash price or, in reasonable detail, other consideration for which Seller proposes to Transfer the Offered Shares (the "**Offered Price**"); and (e) the Company's right to exercise its Right of First Refusal with respect to the Offered Shares.

(ii) ***Company's Right of First Refusal***. For a period of twenty (20) days (the "**Initial Exercise Period**") after the date on which the Transfer Notice is delivered to the Company, the Company shall have the right to purchase all or any part of the Offered Shares on the terms and conditions set forth in this Section 6.11(ii). In order to exercise its right hereunder, the Company must deliver written notice to Seller within the Initial Exercise Period. Upon the earlier to occur of (a) the expiration of the Initial Exercise Period or (b) the time when Seller has received written confirmation from the Company regarding its exercise of its Right of First Refusal, the Company shall be deemed to have made its election with respect to the Offered Shares.

(iii) ***ROFR Confirmation Notice***. Within five (5) days after the expiration of the Initial Exercise Period, Seller will give written notice to the Company specifying the number of Offered Shares to be purchased by the Company if it exercises its Right of First Refusal (the "**ROFR Confirmation Notice**"). The ROFR Confirmation Notice shall also specify the number of Offered Shares not purchased by the Company, if any, pursuant to Section 6.11(ii) ("**Unsubscribed Shares**").

(iv) ***Seller's Right to Transfer***. Subject to Section 6.11(v), if any of the Offered Shares remain available after the exercise of all Rights of First Refusal as described in this Section 6.11, then the Seller shall be free to transfer any such remaining shares to the Proposed Transferee at the Offered Price or a higher price as provided in the Transfer Notice; *provided however* that if the Offered Shares are not so Transferred during the seventy-two (72) day period following the delivery of the Transfer Notice, then Seller may not Transfer any such remaining Offered Shares without complying again in full with the provisions of this Section 6.11.

(v) ***Board's Overall Right to Approve***. Notwithstanding anything in this Section 6.11 to the contrary, the Seller's right to Transfer provided in Section 6.11(iv) shall be subject in all **cases** to the prior written approval of such Transfer by a majority of the members of the Board. For the avoidance of doubt, no Transfer by the Seller pursuant to Section 6.11(iv) shall be effective without the prior written approval of a majority of the members of the Board.

(vi) ***Purchase Price.*** The purchase price for the Offered Shares to be purchased by the Company exercising its Right of First Refusal under this Agreement will be as detailed in the Transfer Notice, and will be payable within ten (10) days of the later of (a) the delivery of the ROFR Confirmation Notice or (b) the delivery of the prior written approval of the Board, if necessary.

For purposes of this section 6.11, the following definitions shall apply:

"***Right of First Refusal***" shall mean the rights of first refusal provided to the Company in this Section 6.11.

"***Transfer***" shall mean and include any sale, assignment, encumbrance, hypothecation, pledge, conveyance in trust, gift, transfer by bequest, devise or descent, or other transfer or disposition of any kind, including but not limited to transfers to receivers, levying creditors, trustees or receivers in bankruptcy proceeds or general assignees for the benefit of creditors, whether voluntarily or by operation of law, directly or indirectly, *except* (i) any transfers of Seller Shares by a Seller to Seller's spouse, ex-spouse, domestic partner, lineal descendant or antecedent, brother or sister, the adopted child or adopted grandchild, or the spouse or domestic partner of any child, adopted child, grandchild or adopted grandchild of Seller, or to a trust or trusts for the exclusive benefit of Seller or those members of Seller's family specified in this definition or transfers of Seller Shares by Seller by devise or descent; *provided* that, in all cases, the transferee or other recipient executes an instrument acknowledging receipt of a copy of these Bylaws; (ii) any *bona fide* gift effected for tax planning purposes, *provided* that the pledgee, transferee or donee or other recipient executes an instrument acknowledging receipt of a copy of these Bylaws; (iii) any transfer to the Company pursuant to the terms of this Section 6.11; and (iv) any repurchase of Seller Shares by the Company pursuant to agreements under which the Company has the option to repurchase such Seller Shares upon the occurrence of certain events, such as termination of employment, or in connection with the exercise by the Company of any Rights of First Refusal.

ARTICLE VII — NOTICE BY ELECTRONIC TRANSMISSION

7.1 ***Notice by Electronic Transmission***. Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of incorporation or these bylaws, any notice to stockholders given by the Company under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Company. Any such consent shall be deemed revoked if:

(i) the Company is unable to deliver by electronic transmission two consecutive notices given by the Company in accordance with such consent; and

(ii) such inability becomes known to the Secretary or an Assistant Secretary of the Company or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the Secretary or an Assistant Secretary or of the transfer agent or other agent of the Company that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

7.2 ***Definition of Electronic Transmission***. An "electronic transmission" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

7.3 ***Inapplicability***. Notice by a form of electronic transmission shall not apply to Sections 164, 296, 311, 312 or 324 of the DGCL.

ARTICLE VIII — INDEMNIFICATION

8.1 ***Indemnification of Directors and Officers***. The Company shall indemnify and hold harmless, to the fullest extent permitted by the DGCL as it presently exists or may hereafter be amended, any director or officer of the Company who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**") by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director, officer, employee or agent of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses reasonably incurred by such person in connection with any such Proceeding. The Company shall be required to indemnify a person in connection with a Proceeding initiated by such person only if the Proceeding was authorized by the Board.

8.2 ***Indemnification of Others***. The Company shall have the power to indemnify and hold harmless, to the extent permitted by applicable law as it presently exists or may hereafter be amended, any employee or agent of the Company who was or is made or is threatened to be made a party or is otherwise involved in any Proceeding by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was an employee or agent of the Company or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or non-profit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses reasonably incurred by such person in connection with any such Proceeding.

8.3 ***Prepayment of Expenses***. The Company shall pay the expenses incurred by any officer or director of the Company, and may pay the expenses incurred by any employee or agent of the Company, in defending any Proceeding in advance of its final disposition; *provided* that the payment of expenses incurred by a person in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the person to repay all amounts advanced if it should be ultimately determined that the person is not entitled to be indemnified under this **Article VIII** or otherwise.

8.4 ***Determination; Claim***. If a claim for indemnification or payment of expenses under this **Article VIII** is not paid in full within sixty days after a written claim therefor has been received by the Company the claimant may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Company shall have the burden of proving that the claimant was not entitled to the requested indemnification or payment of expenses under applicable law.

8.5 ***Non-Exclusivity of Rights***. The rights conferred on any person by this **Article VIII** shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of the certificate of incorporation, these bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

8.6 ***Insurance***. The Company may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Company, or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against him or her and incurred by him or her in any such capacity, or arising out of his or her status as such, whether or not the Company would have the power to indemnify him or her against such liability under the provisions of the DGCL.

8.7 ***Other Indemnification***. The Company's obligation, if any, to indemnify any person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or non-profit entity shall be reduced by any amount such person may collect as indemnification from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

8.8 ***Amendment or Repeal***. Any repeal or modification of the foregoing provisions of this **Article VIII** shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

ARTICLE IX — AMENDMENTS

These bylaws may be adopted, amended or repealed by a majority of the stockholders entitled to vote. However, the Company may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

CERTIFICATE OF ADOPTION OF BYLAWS
OF
SEQLL INC.

The undersigned certifies that she is the duly elected, qualified and acting Secretary of SeqLL Inc., a Delaware corporation (the "**Company**"), and that the foregoing bylaws, comprising a total seventeen (17) pages, were adopted as the bylaws of the Company on April 4, 2014 by the sole incorporator of the Company.

IN WITNESS WHEREOF, the undersigned has executed this certificate as of April 4, 2014.

/s/ Tisha Jepson
Tisha Jepson, Secretary

Exhibit 3.3

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
SEQLL INC.

SeqLL Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "General Corporation Law"), hereby certifies that:

FIRST. The name of this Corporation is SeqLL Inc.

SECOND. The Certificate of Incorporation of the Corporation was originally filed with the Secretary of State of Delaware on April 3, 2014. A first Amended and Restated Certificate of Incorporation was filed on April 14, 2014. A second Amended and Restated Certificate of Incorporation was filed on February 18, 2016. The Certificate of Incorporation of the Corporation as heretofore amended is hereby amended and restated pursuant to Sections 228, 242 and 245 of the General Corporation Law. All amendments to the Certificate of Incorporation reflected herein (this "Restated Certificate") have been duly adopted by the Board of Directors and stockholders of the Corporation in accordance with the provisions of such Sections. As required by Section 228 of the General Corporation Law, the Corporation has given written notice of the amendments reflected herein to all stockholders who did not consent in writing to these amendments.

THIRD. The Certificate of Incorporation of the Corporation shall be amended and restated to read in full as follows:

ARTICLE I

The name of this corporation is SeqLL Inc.

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is 2711 Centerville Road, Suite 400, in the City of Wilmington, County of New Castle, Delaware 19808. The name of its registered agent at such address is Corporation Service Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of the State of Delaware.

ARTICLE IV

A. **Classes of Stock and Authorized Shares**.

The Corporation is authorized to issue two classes of stock to be designated, respectively, Common Stock, par value $0.00001 per share (the "Common Stock"), and Preferred Stock, par value $0.00001 per share (the "Preferred Stock"). The total number of shares which the Corporation is authorized to issue is One Hundred million (100,000,000) shares, of which Eighty Million (80,000,000) shares shall be Common Stock, and Twenty Million (20,000,000) shares shall be Preferred Stock.

B. **Rights, Preferences and Restrictions of Preferred Stock**. The Board of Directors of the corporation is hereby expressly authorized, by resolution or resolutions thereof, to provide, out of the unissued shares of Preferred Stock, for one or more series of Preferred Stock and, with respect to each such series, to fix the number of shares constituting such series and the designation of such series, the voting powers, if any, of the shares of such series, and the preferences and relative, participating, optional or other special rights, if any, and any qualifications, limitations or restrictions thereof, of the shares of such series. The powers, preferences and relative, participating, optional and other special rights of each series of Preferred Stock, and the qualifications, limitations or restrictions thereof, if any, may differ from those of any and all other series at any time outstanding. Subject to Section A of this Article IV, the Board is also expressly authorized to increase or decrease the number of shares of any series of Preferred Stock subsequent to the issuance of shares of that series, but not below the number of shares of such series then outstanding. Unless otherwise expressly provided in the certificate of designations in respect of any series of Preferred Stock, in case the number of shares of such series shall be decreased in accordance with the foregoing sentence, the shares constituting such decrease shall resume the status that they had prior to the adoption of the resolution originally fixing the number of shares of such series.

C. **Rights of Common Stock**. The relative powers, rights, qualifications, limitations and restrictions granted to or imposed on the shares of the Common Stock are as follows:

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights of the holders of the Preferred Stock of any series as may be designated by the Board of Directors upon any issuance of the Preferred Stock of any series.

2. Voting Rights. The holders of the Common Stock shall have voting rights at all meetings of stockholders, each such holder being entitled to one vote for each share thereof held by such holder; provided, however, that, except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Restated Certificate that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more other such series, to vote thereon pursuant to this Restated Certificate or the General Corporation Law. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the voting power of the capital stock of the Corporation entitled to vote thereon, voting as a single class, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

3. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor as and when determined by the Board of Directors and subject to any preferential dividend or other rights of any then outstanding Preferred Stock and to the requirements of applicable law.

4. Liquidation. Upon the dissolution or liquidation of the Corporation, whether voluntary or involuntary, holders of Common Stock will be entitled to receive all assets of the Corporation available for distribution to its stockholders, subject to any preferential or other rights of any then outstanding Preferred Stock.

ARTICLE V

In furtherance and not in limitation of the powers conferred upon it by the General Corporation Law, and subject to the terms of any series of Preferred Stock, the Board of Directors is expressly authorized and empowered to adopt, amend or repeal the Bylaws of the Corporation. The stockholders may not adopt, amend, alter or repeal the Bylaws of the Corporation, or adopt any provision inconsistent therewith, unless such action is approved, in addition to any other vote required by this Restated Certificate, by the affirmative vote of the holders of at least 66 2/3% in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon. Notwithstanding any other provisions of law, this Restated Certificate or the Bylaws of the Corporation, and notwithstanding the fact that a lesser percentage may be specified by law, the affirmative vote of the holders of at least 66 2/3% in voting power of the outstanding shares of capital stock of the Corporation entitled to vote thereon shall be required to amend or repeal, or to adopt any provision inconsistent with, this Article V.

ARTICLE VI

A. **Authority of Board**. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors. In addition to the powers and authority expressly conferred by statute or by this Restated Certificate or the Bylaws of the Corporation, the Board of Directors is hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation.

B. **Board Size**. Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, the total number of authorized directors constituting the Board of Directors shall be fixed from time to time exclusively by the Board of Directors pursuant to a resolution adopted by a majority of the Board of Directors.

C. **Classified Board Structure**. From and after the Effective Time (defined below), the directors, other than any who may be elected by the holders of any series of Preferred Stock under specified circumstances, shall be divided into three (3) classes hereby designated Class I, Class II and Class III. The Board of Directors may assign members of the Board of Directors already in office to such classes at the time such classification becomes effective. The term of office of the initial Class I directors shall expire at the first annual meeting of the stockholders following the effectiveness of this Restated Certificate (the "Effective Time"), the term of office of the initial Class II directors shall expire at the second annual meeting of the stockholders following the Effective Time, and the term of office of the initial Class III directors shall expire at the third annual meeting of the stockholders following the Effective Time. At each annual meeting of stockholders, commencing with the first annual meeting of stockholders following the Effective Time, each of the successors elected to replace the directors of a Class whose term shall have expired at such annual meeting shall be elected to hold office for a three-year term and until the third annual meeting next succeeding his or her election and until his or her respective successor shall have been duly elected and qualified. Notwithstanding the foregoing provisions of this Article VI, each director shall serve until his or her successor is duly elected and qualified or until his or her death, resignation, or removal.

D. **Removal; Vacancies**. Any director may be removed from office by the stockholders of the Corporation only for cause by the affirmative vote of the holders of at least 66 2/3% of the outstanding voting power of the stockholders. Vacancies occurring on the Board of Directors for any reason and newly created directorships resulting from an increase in the authorized number of directors may be filled only by vote of a majority of the remaining members of the Board of Directors, although less than a quorum, or by a sole remaining director, at any meeting of the Board of Directors. A person elected to fill a vacancy or newly created directorship shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall be duly elected and qualified.

ARTICLE VII

A. **Special Meetings**. Special meetings of the stockholders may be called only by (i) the Board of Directors pursuant to a resolution adopted by a majority of the Board of Directors; (ii) the chairman of the Board of Directors; or (iii) the chief executive officer or president of the Corporation.

B. **No Stockholder Action by Written Consent**. Subject to the rights of the holders of any series of Preferred Stock, any action required or permitted to be taken by the stockholders of the Corporation must be effected at a duly called annual or special meeting of stockholders of the Corporation and may not be effected by any consent in writing by such stockholders.

C. **Forum Selection**. Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for all "internal corporate claims." "Internal corporate claims" means claims, including claims in the right of the Corporation, (a) that are based upon a violation of a duty by a current or former director or officer or stockholder in such capacity, or (b) as to which Title 8 of the General Corporation Law confers jurisdiction upon the Court of Chancery, except for, as to each of (a) and (b) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article VII shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article VII (including each portion of any sentence of this Article VII containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

ARTICLE VIII

A. The Corporation shall indemnify (and advance expenses to) its directors, officers, employees and agents to the full extent permitted by the General Corporation Law, as amended from time to time.

B. To the fullest extent permitted by law, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability. No amendment to or repeal of this provision, nor the adoption of any provision of the Restated Certificate inconsistent with this Article VIII, shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment or repeal. If the General Corporation Law is amended to permit further elimination or limitation of the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

ARTICLE IX

The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Restated Certificate, in the manner now or hereafter prescribed by statute, and all rights conferred upon stockholders herein are granted subject to this reservation. Notwithstanding any other provision of this Restated Certificate or the Bylaws of the corporation and in addition to any affirmative vote of the holders of any particular class of stock of the corporation required by applicable law or by this Restated Certificate, or the Bylaws of the corporation, the affirmative vote of the holders of at least 66 2/3% of the voting power of the shares of the then outstanding voting stock of the corporation, voting together as a single class, shall be required to amend, repeal, or adopt any provisions of this Restated Certificate.

[No Further Text. Signature Page Follows.]

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been signed on behalf of the Corporation by its duly authorized officer effective this __ day of _____, 2019.

SEQLL INC.

Name:
Chief Executive Officer

Exhibit 3.4

AMENDED AND RESTATED BYLAWS
OF
SEQLL INC.

ARTICLE I

Meeting of Stockholders

Section 1.1 *Annual Meetings*. If required by applicable law, an annual meeting of stockholders shall be held for the election of directors at such date, time and place, if any, either within or without the State of Delaware, as may be designated by resolution of the Board of Directors from time to time. Any other proper business may be transacted at the annual meeting.

Section 1.2 *Special Meetings*. Special meetings of stockholders for any purpose or purposes may be called at any time by the Chairman of the Board of Directors, or by the Chief Executive Officer or President, or by a resolution adopted by a majority of the whole Board of Directors, but such special meetings may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to the purposes stated in the notice.

Section 1.3 *Notice of Meetings*. Whenever stockholders are required or permitted to take any action at a meeting, a notice of the meeting shall be given that shall state the place, if any, date and hour of the meeting, the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, the record date for determining the stockholders entitled to vote at the meeting (if such date is different from the record date for stockholders entitled to notice of the meeting) and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Unless otherwise provided by law, the certificate of incorporation or these bylaws, the notice of any meeting shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at the meeting as of the record date for determining the stockholders entitled to notice of the meeting. If mailed, such notice shall be deemed to be given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation.

Section 1.4 *Adjournments*. Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of any such adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. If after the adjournment a new record date for determination of stockholders entitled to vote is fixed for the adjourned meeting, the Board of Directors shall fix as the record date for determining stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record as of the record date so fixed for notice of such adjourned meeting.

Section 1.5 *Quorum*. Except as otherwise provided by law, the certificate of incorporation or these bylaws, at each meeting of stockholders the presence in person or by proxy of the holders of a majority in voting power of the outstanding shares of stock entitled to vote at the meeting shall be necessary and sufficient to constitute a quorum. In the absence of a quorum, the stockholders so present may, by a majority in voting power thereof, adjourn the meeting from time to time in the manner provided in Section 1.4 of these bylaws until a quorum shall attend. Shares of its own stock belonging to the corporation or to another corporation, if a majority of the shares entitled to vote in the election of directors of such other corporation is held, directly or indirectly, by the corporation, shall neither be entitled to vote nor be counted for quorum purposes; provided, however, that the foregoing shall not limit the right of the corporation or any subsidiary of the corporation to vote stock, including but not limited to its own stock, held by it in a fiduciary capacity.

Section 1.6 *Organization*. Meetings of stockholders shall be presided over by the Chairman of the Board of Directors or, in his or her absence, by the Chief Executive Officer or, in his or her absence, by the President or, in his or her absence, by a Vice President or, in the absence of the foregoing persons, by a chairman designated by the Board of Directors or, in the absence of such designation, by a chairman chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

Section 1.7 *Voting; Proxies*. Except as otherwise provided by or pursuant to the provisions of the certificate of incorporation, each stockholder entitled to vote at any meeting of stockholders shall be entitled to one vote for each share of stock held by such stockholder which has voting power upon the matter in question. Each stockholder entitled to vote at a meeting of stockholders may authorize another person or persons to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power. A stockholder may revoke any proxy which is not irrevocable by attending the meeting and voting in person or by delivering to the Secretary of the corporation a revocation of the proxy or a new proxy bearing a later date. Voting at meetings of stockholders need not be by written ballot. At all meetings of stockholders for the election of directors at which a quorum is present a plurality of the votes cast shall be sufficient to elect. All other elections and questions presented to the stockholders at a meeting at which a quorum is present shall, unless otherwise provided by the certificate of incorporation, these bylaws, the rules or regulations of any stock exchange applicable to the corporation, or applicable law or pursuant to any regulation applicable to the corporation or its securities, be decided by the affirmative vote of the holders of a majority in voting power of the shares of stock of the corporation which are present in person or by proxy and entitled to vote thereon.

Section 1.8 *Fixing Date for Determination of Stockholders of Record.*

(a) In order that the corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, unless otherwise required by law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If the Board of Directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance herewith at the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which shall not be more than sixty (60) days prior to such other action. If no such record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 1.9 *List of Stockholders Entitled to Vote*. The officer who has charge of the stock ledger shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting (provided, however, if the record date for determining the stockholders entitled to vote is less than ten (10) days before the date of the meeting, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date), arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting at least ten (10) days prior to the meeting (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of meeting or (ii) during ordinary business hours at the principal place of business of the corporation. If the meeting is to be held at a place, then a list of stockholders entitled to vote at the meeting shall be produced and kept at the time and place of the meeting during the whole time thereof and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Except as otherwise provided by law, the stock ledger shall be the only evidence as to who are the stockholders entitled to examine the list of stockholders required by this Section 1.9 or to vote in person or by proxy at any meeting of stockholders.

Section 1.10 *Action by Written Consent of Stockholders*. Unless otherwise provided by the certificate of incorporation, any action required or permitted to be taken by the stockholders of the corporation must be effected at a duly held meeting of stockholders of the corporation at which a quorum is present or represented and may not be effected by any consent in writing by such stockholders.

Section 1.11 *Inspectors of Election*. The corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors of election, who may be employees of the corporation, to act at the meeting or any adjournment thereof and to make a written report thereof. The corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. In the event that no inspector so appointed or designated is able to act at a meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath to execute faithfully the duties of inspector with strict impartiality and according to the best of his or her ability. The inspector or inspectors so appointed or designated shall (i) ascertain the number of shares of capital stock of the corporation outstanding and the voting power of each such share, (ii) determine the shares of capital stock of the corporation represented at the meeting and the validity of proxies and ballots, (iii) count all votes and ballots, (iv) determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors, and (v) certify their determination of the number of shares of capital stock of the corporation represented at the meeting and such inspectors' count of all votes and ballots. Such certification and report shall specify such other information as may be required by law. In determining the validity and counting of proxies and ballots cast at any meeting of stockholders of the corporation, the inspectors may consider such information as is permitted by applicable law. No person who is a candidate for an office at an election may serve as an inspector at such election.

Section 1.12 *Conduct of Meetings*. The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting by the person presiding over the meeting. The Board of Directors may adopt by resolution such rules and regulations for the conduct of the meeting of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the person presiding over any meeting of stockholders shall have the right and authority to convene and (for any or no reason) to adjourn the meeting, to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such presiding person, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the presiding person of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders entitled to vote at the meeting, their duly authorized and constituted proxies or such other persons as the presiding person of the meeting shall determine; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. The presiding person at any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall, if the facts warrant, determine and declare to the meeting that a matter or business was not properly brought before the meeting and if such presiding person should so determine, such presiding person shall so declare to the meeting and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board of Directors or the person presiding over the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

Section 1.13 *Notice of Stockholder Business and Nominations*.

(a) Annual Meetings of Stockholders.

(1) Nominations of persons for election to the Board of Directors of the corporation and the proposal of other business to be considered by the stockholders may be made at an annual meeting of stockholders only (a) pursuant to the corporation's notice of meeting (or any supplement thereto), (b) by or at the direction of the Board of Directors or any committee thereof or (c) by any stockholder of the corporation who was a stockholder of record of the corporation at the time the notice provided for in this Section 1.13 is delivered to the Secretary of the corporation, who is entitled to vote at the meeting and who complies with the notice procedures set forth in this Section 1.13.

(2) For any nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (c) of paragraph (A)(1) of this Section 1.13, the stockholder must have given timely notice thereof in writing to the Secretary of the corporation and any such proposed business (other than the nominations of persons for election to the Board of Directors) must constitute a proper matter for stockholder action. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the ninetieth (90th) day, nor earlier than the close of business on the one hundred twentieth (120th) day, prior to the first anniversary of the preceding year's annual meeting (provided, however, that in the event that no annual meeting was held in the previous year, the date of the annual meeting is more than thirty (30) days before or more than seventy (70) days after such anniversary date, notice by the stockholder must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made by the corporation). In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (a) as to each person whom the stockholder proposes to nominate for election as a director (i) all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to and in accordance with Section 14(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and the rules and regulations promulgated thereunder, and (ii) such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected; (b) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the bylaws of the corporation, the language of the proposed amendment), the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (c) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class or series and number of shares of capital stock of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner, (iii) a description of any agreement, arrangement or understanding with respect to the nomination or proposal between or among such stockholder and/or such beneficial owner, any of their respective affiliates or associates, and any others acting in concert with any of the foregoing, including, in the case of a nomination, the nominee, (iv) a description of any agreement, arrangement or understanding (including any derivative or short positions, profit interests, options, warrants, convertible securities, stock appreciation or similar rights, hedging transactions, and borrowed or loaned shares) that has been entered into as of the date of the stockholder's notice by, or on behalf of, such stockholder and such beneficial owners, whether or not such instrument or right shall be subject to settlement in underlying shares of capital stock of the corporation, the effect or intent of which is to mitigate loss to, manage risk or benefit of share price changes for, or increase or decrease the voting power of, such stockholder or such beneficial owner, with respect to securities of the corporation, (v) a representation that the stockholder is a holder of record of stock of the corporation entitled to vote at such meeting and intends to appear in person or by proxy at the meeting to propose such business or nomination, (vi) a representation whether the stockholder or the beneficial owner, if any, intends or is part of a group which intends (a) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the corporation's outstanding capital stock required to approve or adopt the proposal or elect the nominee and/or (b) otherwise to solicit proxies or votes from stockholders in support of such proposal or nomination, and (vii) any other information relating to such stockholder and beneficial owner, if any, required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for, as applicable, the proposal and/or for the election of directors in an election contest pursuant to and in accordance with Section 14(a) of the Exchange Act and the rules and regulations promulgated thereunder. The foregoing notice requirements of this Section 1.13 shall be deemed satisfied by a stockholder with respect to business other than a nomination if the stockholder has notified the corporation of his, her or its intention to present a proposal at an annual meeting in compliance with applicable rules and regulations promulgated under the Exchange Act and such stockholder's proposal has been included in a proxy statement that has been prepared by the corporation to solicit proxies for such annual meeting. The corporation may require any proposed nominee to furnish such other information as the corporation may reasonably require to determine the eligibility of such proposed nominee to serve as a director of the corporation.

(3) Notwithstanding anything in the second sentence of paragraph (A)(2) of this Section 1.13 to the contrary, in the event that the number of directors to be elected to the Board of Directors of the corporation at the annual meeting is increased effective after the time period for which nominations would otherwise be due under paragraph (A)(2) of this Section 1.13 and there is no public announcement by the corporation naming the nominees for the additional directorships at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 1.13 shall also be considered timely, but only with respect to nominees for the additional directorships, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the corporation.

(b) *Special Meetings of Stockholders*. Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the corporation's notice of meeting. Nominations of persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the corporation's notice of meeting (1) by or at the direction of the Board of Directors or any committee thereof or (2) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the corporation who is a stockholder of record at the time the notice provided for in this Section 1.13 is delivered to the Secretary of the corporation, who is entitled to vote at the meeting and upon such election and who complies with the notice procedures set forth in this Section 1.13. In the event the corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the corporation's notice of meeting, if the stockholder's notice required by paragraph (A)(2) of this Section 1.13 shall be delivered to the Secretary at the principal executive offices of the corporation not earlier than the close of business on the one hundred twentieth (120th) day prior to such special meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such special meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(c) *General*.

(1) Except as otherwise expressly provided in any applicable rule or regulation promulgated under the Exchange Act, only such persons who are nominated in accordance with the procedures set forth in this Section 1.13 shall be eligible to be elected at an annual or special meeting of stockholders of the corporation to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 1.13. Except as otherwise provided by law, the chairman of the meeting shall have the power and duty (a) to determine whether a nomination or any business proposed to be brought before the meeting was made or proposed, as the case may be, in accordance with the procedures set forth in this Section 1.13 (including whether the stockholder or beneficial owner, if any, on whose behalf the nomination or proposal is made solicited (or is part of a group which solicited) or did not so solicit, as the case may be, proxies or votes in support of such stockholder's nominee or proposal in compliance with such stockholder's representation as required by clause (A)(2)(c)(vi) of this Section 1.13) and (b) if any proposed nomination or business was not made or proposed in compliance with this Section 1.13, to declare that such nomination shall be disregarded or that such proposed business shall not be transacted. Notwithstanding the foregoing provisions of this Section 1.13, unless otherwise required by law, if the stockholder (or a qualified representative of the stockholder) does not appear at the annual or special meeting of stockholders of the corporation to present a nomination or proposed business, such nomination shall be disregarded and such proposed business shall not be transacted, notwithstanding that proxies in respect of such vote may have been received by the corporation. For purposes of this Section 1.13, to be considered a qualified representative of the stockholder, a person must be a duly authorized officer, manager or partner of such stockholder or must be authorized by a writing executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such writing or electronic transmission, or a reliable reproduction of the writing or electronic transmission, at the meeting of stockholders.

(2) For purposes of this Section 1.13, “public announcement” shall include disclosure in a press release reported by the Dow Jones News Service, Associated Press or other national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act and the rules and regulations promulgated thereunder.

(3) Notwithstanding the foregoing provisions of this Section 1.13, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations promulgated thereunder with respect to the matters set forth in this Section 1.13; provided however, that any references in these bylaws to the Exchange Act or the rules and regulations promulgated thereunder are not intended to and shall not limit any requirements applicable to nominations or proposals as to any other business to be considered pursuant to this Section 1.13 (including paragraphs (A)(1)(c) and (B) hereof), and compliance with paragraphs (A)(1)(c) and (B) of this Section 1.13 shall be the exclusive means for a stockholder to make nominations or submit other business (other than, as provided in the penultimate sentence of (A)(2), business other than nominations brought properly under and in compliance with Rule 14a-8 of the Exchange Act, as may be amended from time to time). Nothing in this Section 1.13 shall be deemed to affect any rights (a) of stockholders to request inclusion of proposals or nominations in the corporation's proxy statement pursuant to applicable rules and regulations promulgated under the Exchange Act or (b) of the holders of any series of Preferred Stock to elect directors pursuant to any applicable provisions of the certificate of incorporation.

ARTICLE II

Board of Directors

Section 2.1 *Number; Qualifications*. Subject to the certificate of incorporation, the Board of Directors shall consist of one or more members, the number thereof to be determined from time to time by resolution of the Board of Directors. Directors need not be stockholders.

Section 2.2 *Election; Resignation; Vacancies*. The Board of Directors shall initially consist of the persons named as directors in the certificate of incorporation or elected by the incorporator of the corporation, and each director so elected shall hold office until the first annual meeting of stockholders or until his or her successor is duly elected and qualified. The members of the Board of Directors shall be elected for staggered terms of three (3) years, with approximately one-third (1/3) of the Directors being elected annually. Any director may resign at any time upon notice to the corporation. Unless otherwise provided by law or the certificate of incorporation, any newly created directorship or any vacancy occurring in the Board of Directors for any cause may be filled only by a majority of the remaining members of the Board of Directors, although such majority is less than a quorum, or by a plurality of the votes cast at a meeting of stockholders, and each director so elected shall hold office until the expiration of the term of office of the director whom he or she has replaced or until his or her successor is elected and qualified.

Section 2.3 *Regular Meetings*. Regular meetings of the Board of Directors may be held at such places within or without the State of Delaware and at such times as the Board of Directors may from time to time determine.

Section 2.4 *Special Meetings*. Special meetings of the Board of Directors may be held at any time or place within or without the State of Delaware whenever called by the Chief Executive Officer, the President, the Secretary, or by any two members of the Board of Directors. Notice of a special meeting of the Board of Directors shall be given by the person or persons calling the meeting at least twenty-four hours before the special meeting.

Section 2.5 *Telephonic Meetings Permitted*. Members of the Board of Directors, or any committee designated by the Board of Directors, may participate in a meeting thereof by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting pursuant to this by-law shall constitute presence in person at such meeting.

Section 2.6 *Quorum; Vote Required for Action*. At all meetings of the Board of Directors the directors entitled to cast a majority of the votes of the whole Board of Directors shall constitute a quorum for the transaction of business. Except in cases in which the certificate of incorporation, these bylaws or applicable law otherwise provides, a majority of the votes entitled to be cast by the directors present at a meeting at which a quorum is present shall be the act of the Board of Directors.

Section 2.7 *Organization*. Meetings of the Board of Directors shall be presided over by the Chairman of the Board of Directors or, in his or her absence, by a chairman chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence, the chairman of the meeting may appoint any person to act as secretary of the meeting.

Section 2.8 *Action by Unanimous Consent of Directors*. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board of Directors or such committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmissions are filed with the minutes of proceedings of the board or committee in accordance with applicable law.

ARTICLE III

Committees

Section 3.1 *Committees*. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member. Any such committee, to the extent permitted by law and to the extent provided in the resolution of the Board of Directors, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it.

Section 3.2 *Committee Rules*. Unless the Board of Directors otherwise provides, each committee designated by the Board of Directors may make, alter and repeal rules for the conduct of its business. In the absence of such rules each committee shall conduct its business in the same manner as the Board of Directors conducts its business pursuant to Article II of these bylaws.

ARTICLE IV

Officers

Section 4.1 *Officers*. The officers of the corporation shall consist of a Chief Executive Officer, a Chief Financial Officer, a President, one or more Vice Presidents, a Secretary, a Treasurer, a Controller and such other officers as the Board of Directors may from time to time determine, each of whom shall be elected by the Board of Directors, each to have such authority, functions or duties as set forth in these bylaws or as determined by the Board of Directors. Each officer shall be chosen by the Board of Directors and shall hold office for such term as may be prescribed by the Board of Directors and until such person's successor shall have been duly chosen and qualified, or until such person's earlier death, disqualification, resignation or removal. The Board of Directors may elect or appoint co-Chairmen of the Board, co-Presidents or co-Chief Executive Officers and, in such case, references in these bylaws to the Chairman of the Board, the President or the Chief Executive Officer shall refer to either such co-Chairman of the Board, co-President or co-Chief Executive Officer, as the case may be.

Section 4.2 *Removal, Resignation and Vacancies*. Any officer of the corporation may be removed, with or without cause, by the Board of Directors, without prejudice to the rights, if any, of such officer under any contract to which it is a party. Any officer may resign at any time upon written notice to the corporation, without prejudice to the rights, if any, of the corporation under any contract to which such officer is a party. If any vacancy occurs in any office of the corporation, the Board of Directors may elect a successor to fill such vacancy for the remainder of the unexpired term and until a successor shall have been duly chosen and qualified.

Section 4.3 *Chairman of the Board of Directors*. The Chairman of the Board of Directors shall be subject to the control of the Board of Directors, and shall report directly to the Board of Directors.

Section 4.4 *Chief Executive Officer*. The Chief Executive Officer shall have general supervision and direction of the business and affairs of the corporation, shall be responsible for corporate policy and strategy, and shall report directly to the Chairman of the Board of Directors. Unless otherwise provided in these bylaws, all other officers of the corporation shall report directly to the Chief Executive Officer or as otherwise determined by the Chief Executive Officer. The Chief Executive Officer shall, if present and in the absence of the Chairman of the Board of Directors, preside at meetings of the stockholders and of the Board of Directors.

Section 4.5 *Chief Financial Officer*. The Chief Financial Officer shall exercise all the powers and perform the duties of the office of the chief financial officer and in general have overall supervision of the financial operations of the corporation. The Chief Financial Officer shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.6 *President*. The President shall be the chief operating officer of the corporation, with general responsibility for the management and control of the operations of the corporation. The President shall have the power to affix the signature of the corporation to all contracts that have been authorized by the Board of Directors or the Chief Executive Officer. The President shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.7 *Vice Presidents*. The Vice President shall have such powers and duties as shall be prescribed by his or her superior officer or the Chief Executive Officer. A Vice President shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.8 *Treasurer*. The Treasurer shall supervise and be responsible for all the funds and securities of the corporation, the deposit of all moneys and other valuables to the credit of the corporation in depositories of the corporation, borrowings and compliance with the provisions of all indentures, agreements and instruments governing such borrowings to which the corporation is a party, the disbursement of funds of the corporation and the investment of its funds, and in general shall perform all of the duties incident to the office of the Treasurer. The Treasurer shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.9 *Controller*. The Controller shall be the chief accounting officer of the corporation. The Controller shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or the Chief Financial Officer or as the Board of Directors may from time to time determine.

Section 4.10 *Secretary*. The powers and duties of the Secretary are: (i) to act as Secretary at all meetings of the Board of Directors, of the committees of the Board of Directors and of the stockholders and to record the proceedings of such meetings in a book or books to be kept for that purpose; (ii) to see that all notices required to be given by the corporation are duly given and served; (iii) to act as custodian of the seal of the corporation and affix the seal or cause it to be affixed to all certificates of stock of the corporation and to all documents, the execution of which on behalf of the corporation under its seal is duly authorized in accordance with the provisions of these bylaws; (iv) to have charge of the books, records and papers of the corporation and see that the reports, statements and other documents required by law to be kept and filed are properly kept and filed; and (v) to perform all of the duties incident to the office of Secretary. The Secretary shall, when requested, counsel with and advise the other officers of the corporation and shall perform such other duties as such officer may agree with the Chief Executive Officer or as the Board of Directors may from time to time determine.

Section 4.11 *Additional Matters*. The Chief Executive Officer and the Chief Financial Officer of the corporation shall have the authority to designate employees of the corporation to have the title of Vice President, Assistant Vice President, Assistant Treasurer or Assistant Secretary. Any employee so designated shall have the powers and duties determined by the officer making such designation. The persons upon whom such titles are conferred shall not be deemed officers of the corporation unless elected by the Board of Directors.

ARTICLE V

Stock

Section 5.1 *Certificates*. The shares of the corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Every holder of stock represented by certificates shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors or the President or a Vice President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary, of the corporation certifying the number of shares owned by such holder in the corporation. Any of or all the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be issued by the corporation with the same effect as if such person were such officer, transfer agent, or registrar at the date of issue.

Section 5.2 *Lost, Stolen or Destroyed Stock Certificates; Issuance of New Certificates*. The corporation may issue a new certificate of stock in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate.

ARTICLE VI

Indemnification and Advancement of Expenses

Section 6.1 *Right to Indemnification*. The corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (a "Covered Person") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "proceeding"), by reason of the fact that he or she, or a person for whom he or she is the legal representative, is or was a director or officer of the corporation or, while a director or officer of the corporation, is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such Covered Person. Notwithstanding the preceding sentence, except as otherwise provided in Section 6.3, the corporation shall be required to indemnify a Covered Person in connection with a proceeding (or part thereof) commenced by such Covered Person only if the commencement of such proceeding (or part thereof) by the Covered Person was authorized in the specific case by the Board of Directors of the corporation.

Section 6.2 *Prepayment of Expenses*. The corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by a Covered Person in defending any proceeding in advance of its final disposition, provided, however, that, to the extent required by law, such payment of expenses in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking by the Covered Person to repay all amounts advanced if it should be ultimately determined that the Covered Person is not entitled to be indemnified under this Article VI or otherwise.

Section 6.3 *Claims*. If a claim for indemnification (following the final disposition of such proceeding) or advancement of expenses under this Article VI is not paid in full within thirty (30) days after a written claim therefor by the Covered Person has been received by the corporation, the Covered Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim to the fullest extent permitted by law. In any such action the corporation shall have the burden of proving that the Covered Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

Section 6.4 *Nonexclusivity of Rights*. The rights conferred on any Covered Person by this Article VI shall not be exclusive of any other rights which such Covered Person may have or hereafter acquire under any statute, provision of the certificate of incorporation, these bylaws, agreement, vote of stockholders or disinterested directors or otherwise.

Section 6.5 *Other Sources*. The corporation's obligation, if any, to indemnify or to advance expenses to any Covered Person who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or nonprofit entity shall be reduced by any amount such Covered Person may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

Section 6.6 *Amendment or Repeal*. Any right to indemnification or to advancement of expenses of any Covered Person arising hereunder shall not be eliminated or impaired by an amendment to or repeal of these bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought.

Section 6.7 *Other Indemnification and Advancement of Expenses*. This Article VI shall not limit the right of the corporation, to the extent and in the manner permitted by law, to indemnify and to advance expenses to persons other than Covered Persons when and as authorized by appropriate corporate action.

ARTICLE VII

Miscellaneous

Section 7.1 *Fiscal Year*. The fiscal year of the corporation shall be determined by resolution of the Board of Directors.

Section 7.2 *Manner of Notice*. Except as otherwise provided herein or permitted by applicable law, notices to directors and stockholders shall be in writing and delivered personally or mailed to the directors or stockholders at their addresses appearing on the books of the corporation. Without limiting the manner by which notice otherwise may be given effectively to stockholders, and except as prohibited by applicable law, any notice to stockholders given by the corporation under any provision of applicable law, the certificate of incorporation, or these bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Any such consent shall be revocable by the stockholder by written notice to the corporation. Any stockholder who fails to object in writing to the corporation, within sixty (60) days of having been given written notice by the corporation of its intention to send the single notice permitted under this Section 7.3, shall be deemed to have consented to receiving such single written notice. Notice to directors may be given by telecopier, telephone or other means of electronic transmission.

Section 7.3 *Waiver of Notice of Meetings of Stockholders, Directors and Committees*. Any waiver of notice, given by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at nor the purpose of any regular or special meeting of the stockholders, directors, or members of a committee of directors need be specified in a waiver of notice.

Section 7.4 *Form of Records*. Any records maintained by the corporation in the regular course of its business, including its stock ledger, books of account, and minute books, may be kept on, or by means of, or be in the form of, any information storage device or method, provided that the records so kept can be converted into clearly legible paper form within a reasonable time.

Section 7.5 *Amendment of Bylaws*. These bylaws may be altered, amended or repealed, and new bylaws made, by the Board of Directors or by the affirmative vote of sixty-six and two-thirds percent of the outstanding voting power of the corporation.

Exhibit 4.1

NUMBER
CERT.9999

SeqLL Inc.

SHARES
*******9,000,000,000*******

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE
$0.00001 PAR VALUE COMMON STOCK

COMMON STOCK

THIS CERTIFIES THAT * SPECIMEN *

Is The Owner of * NINE BILLION AND 00/100 *

FULLY PAID AND NON-ASSESSABLE SHARES OF COMMON STOCK OF
SeqLL Inc.

Transferable on the books of the Corporation in person or by duly authorized attorney upon surrender of this Certificate properly endorsed. This Certificate is not valid until countersigned by the Transfer Agent and registered by the Registrar.

Dated: JANUARY 01, 2009

COUNTERSIGNED AND REGISTERED:
VSTOCK TRANSFER, LLC
Transfer Agent and Registrar

Chief Executive Officer

By:_____
AUTHORIZED SIGNATURE

The following abbreviations, when used in the inscription on the face of this certificate, shall be construed as though they were written out in full according to applicable laws or regulations.

TEN COM	- as tenants in common	UNIF GIFT MIN ACT.....Custodian.....
TEN ENT	- as tenants by the entireties	(Cust) (Minor)
JT TEN	- as joint tenants with the right of survivorship and not as tenants in common	Act..... (State)

Additional abbreviations may also be used though not in the above list.

For value received, _____ *hereby sell, assign and transfer unto*

PLEASE INSERT SOCIAL SECURITY OR OTHER IDENTIFYING NUMBER OF ASSIGNEE:

_____

(PLEASE PRINT OR TYPEWRITE NAME AND ADDRESS, INCLUDING ZIP CODE, OF ASSIGNEE)

_____

_____

_____

_____ *shares*

of the capital stock represented by the within Certificate, and do hereby irrevocably constitute and appoint

_____, *Attorney*

to transfer the said stock on the books of the within named Corporation with full power of substitution in the premises.

*Dated*_____

X_____

THE SIGNATURE TO THIS ASSIGNMENT MUST CORRESPOND WITH THE NAME AS WRITTEN UPON THE FACE OF THIS CERTIFICATE. THE SIGNATURE(S) MUST BE GUARANTEED BY AN ELIGIBLE GUARANTOR INSTITUTION (Banks, Stockbrokers, Savings and Loan Associations and Credit Unions).

SIGNATURE GUARANTEED:

TRANSFER FEE WILL APPLY

PROMISSORY NOTE

$_____ **[City, State]**

[Date]

FOR VALUE RECEIVED, the undersigned promises to pay to ***[_____] (the "Lender"),*** the principal sum of ***[_____]***, together with interest on the balance outstanding at the rate of [__] percent ([__]%) per annum on the balance from time to time remaining unpaid; interest under the note shall be paid annually. This Promissory Note (the "Note") will be secured by all assets of the Borrower; at the request of the Lender, Borrower will execute a security agreement and other documents as Lender may request to perfect Lender's security interest in the assets of Borrower. All sums due under this Note shall become payable on [_____] (the "Maturity Date"). The said principal and interest shall be paid in lawful money of the United States of America at such place as the holder may hereafter direct in writing, said principal sum and accrued interest to be paid in the following manner:

The maker hereof reserves the right to prepay the said principal sum, together with all accrued interest to the day of prepayment, in whole or in part from time to time, and at any time, prior to maturity, without the payment of any premium or penalty whatsoever.

This Note may be amended, or any term thereof waived, upon the written consent of the Borrower and the Lender.

If the Borrower issues equity securities ("Equity Securities") in a transaction or series of related transactions resulting in aggregate gross proceeds to the Borrower of at least $10,000,000 (a "Qualified Financing"), then this Note, and any accrued but unpaid interest thereon, shall be due and payable upon the Qualified Financing.

If a Qualified Financing has not occurred and the Borrower experiences a Change of Control (as defined in the Warrant to Purchase Shares of Common Stock) prior to the Maturity Date, then notwithstanding any provision of the Note to the contrary within five business days of the Change of Control, the Borrower shall pay all the principal sum together with all accrued interest.

Each party will bear its own fees and expenses incurred in the transactions contemplated by this Note.

Each person liable hereon, whether borrower, endorser or guarantor, hereby waives presentment, protest, notice, notice of protest and notice of dishonor, and agrees to pay all costs, including reasonable attorney's fees, whether suit be brought or not, including fees incident to an appeal, if, after maturity of this Note or default hereunder, counsel shall be employed to collect this Note.

The parties hereto intend and believe that each provision in this Note complies with all applicable local, state and federal laws and judicial decisions. However, if any provision, provisions or portions of any provision of this Note or any collateral document referred to herein is found by a court of competent jurisdiction to be in violation of any such applicable local, state or federal ordinance, statute, law, administrative or judicial decision, or public policy, and if such court were to declare such portion, provision or provisions of this Note to be illegal, invalid, unlawful, void or unenforceable as written, then it is the intent of all parties hereto, their successors and assigns, that such portion, provision or provisions shall be given force and effect to the fullest possible extent that they are legal, valid and enforceable, and that the remainder of this Note shall be construed as if such legal, invalid, unlawful, void or unenforceable portion, provision or provisions were severable and not contained herein, and that the rights, obligations and interests of the parties hereto under the remainder of this Note shall continue in full force and effect.

This Note shall be construed in accordance with the laws of the State of [__].

THE BORROWER HEREBY, AND THE LENDER BY ITS ACCEPTANCE OF THIS NOTE, KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE THE RIGHT EITHER MAY HAVE TO A TRIAL BY JURY IN RESPECT OF ANY LITIGATION ARISING OUT OF, UNDER, OR IN CONNECTION WITH THIS NOTE AND ALL LOAN DOCUMENTS AND OTHER AGREEMENTS EXECUTED OR CONTEMPLATED TO BE EXECUTED IN CONNECTION HEREWITH, OR ARISING OUT OF, UNDER, OR IN CONNECTION WITH ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENT (WHETHER VERBAL OR WRITTEN) OR ACTION OF EITHER PARTY, WHETHER IN CONNECTION WITH THE MAKING OF THE LOAN, COLLECTION OF THE LOAN OR OTHERWISE, THIS PROVISION IS A MATERIAL INDUCEMENT FOR THE LENDER MAKING THE LOAN EVIDENCED BY THIS NOTE.

[*Signature appears on following page]*

SEQLL, INC.
a Delaware corporation

By: _____
Daniel Jones
Chief Executive Officer

Signature Page to Promissory Note

Exhibit 4.4

THIS WARRANT AND THE SECURITIES ISSUABLE UPON THE EXERCISE HEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED. THEY MAY NOT BE SOLD, OFFERED FOR SALE, PLEDGED, HYPOTHECATED OR OTHERWISE TRANSFERRED EXCEPT PURSUANT TO AN EFFECTIVE REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR AN OPINION OF COUNSEL REASONABLY SATISFACTORY TO THE COMPANY THAT REGISTRATION IS NOT REQUIRED.

SEQLL INC.

WARRANT TO PURCHASE SHARES OF COMMON STOCK

[_____]

Void after [___], 202[__]

This Warrant to Purchase Shares of Common Stock (this "**Warrant**") is issued to **[_____]** (the "**Holder**"), by SeqLL Inc., a Delaware corporation (the "**Company**").

1. Purchase of Shares. Subject to the terms and conditions hereinafter set forth, the Holder is entitled, upon surrender of this Warrant at the principal office of the Company (or at such other place as the Company shall notify the Holder in writing) and prior to the expiration or termination of this Warrant pursuant to Section 14 hereof, to purchase from the Company up to [_____] (__) shares of the Company's Common Stock, par value $0.00001 per share ("**Common Stock**"), which such shares shall be fully paid and non-assessable, assuming payment of the Exercise Price therefor by the Holder thereof, at a price per share of $1.68 (the "**Exercise Price**"). The Shares and the Exercise Price shall be subject to adjustment pursuant to Section 7 hereof.

2. Definitions.

(a) Change of Control. The term "**Change of Control**" shall mean any (i) liquidation, dissolution or winding up of the Company, either voluntary or involuntary; (ii) merger, consolidation or other similar transaction or series of related transactions in which the shareholders of the Company immediately prior to such transaction(s) do not cumulatively own at least fifty percent (50%) of the outstanding voting securities of the successor entity immediately after such transaction(s) (by virtue of securities issued in such transaction or series of related transactions); (iii) transaction or series of transactions in which fifty percent (50%) or more of the Company's voting power is transferred (other than in connection with financing transactions in which the Company issues securities to investors for capital raising purposes); or (iv) transaction or series of transactions effecting the sale, exclusive lease, exclusive license or other disposition of all or substantially all of the assets of the Company.

(b) Closing Sale Price. The term "**Closing Sale Price**" means the fair market value of the Shares as determined by the Board of Directors of the Company using its good faith judgment to determine the fair market value. The Board of Directors' determination shall be binding upon all parties absent demonstrable error. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during the applicable calculation period.

(c) Holder. The term "**Holder**" shall mean the Person specified in the introductory paragraph of this Warrant or any Person who shall at the time be the registered holder of this Warrant.

(d) IPO. The term "**IPO**" shall mean the closing of the issuance and sale of shares of Common Stock in the Company's first underwritten public offering pursuant to an effective registration statement under the Act (as hereinafter defined).

(e) Person. The term "**Person**" shall mean an individual, a partnership, a corporation (including a business trust), a joint stock company, a limited liability company, an unincorporated association, a joint venture or any other entity or a governmental authority.

(f) Shares. The term "**Shares**" shall mean the shares of Common Stock covered by this Warrant.

3. Method of Exercise. While this Warrant remains outstanding and exercisable in accordance with Section 1 above, the Holder may exercise, in whole or in part, the purchase rights evidenced hereby. Such exercise shall be effected by:

(a) the surrender of this Warrant, together with a notice of exercise to the Chief Executive Officer of the Company at its principal offices, in substantially the form attached hereto as Exhibit A; and

(b) the payment to the Company of an amount equal to the aggregate Exercise Price for the number of Shares being purchased.

4. Cashless Exercise. If an effective registration statement is not available for the issuance of the Share, the Holder may elect to exercise this Warrant on a cashless exercise and receive Shares equal to the value of this Warrant by surrender of this Warrant at the principal office of the Company together with notice of such election, in which event the Company shall issue to the Holder a number of Shares computed using the following formula:

$$X = \frac{(Y * (A - B))}{A}$$

Where

X — The number of Shares to be issued to the Holder.

Y — The number of Shares purchasable under this Warrant.

A — The Closing Sale Price of the Shares on the date of exercise.

B — The Exercise Price (as adjusted to the date of such calculations).

5. Certificates for Shares. Upon the exercise of the purchase rights evidenced by this Warrant, one or more certificates for the number of Shares so purchased shall be issued as soon as practicable thereafter, and in any event within thirty (30) days of the delivery of the subscription notice.

6. Issuance of Shares. The Company covenants that the Shares, when issued pursuant to the exercise of this Warrant, will be duly and validly issued, fully paid and non-assessable and free from all taxes, liens and charges with respect to the issuance thereof.

7. Adjustment of Exercise Price and Number of Shares. The number of and kind of securities purchasable upon exercise of this Warrant and the Exercise Price shall be subject to adjustment from time to time as follows:

(a) Subdivisions, Combinations and Other Issuances. If the Company shall at any time prior to the expiration of this Warrant subdivide the Shares, by split-up or otherwise, or combine its Shares, or issue additional shares of its capital stock as a dividend, the number of Shares issuable on the exercise of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination. Appropriate adjustments shall also be made to the purchase price payable per Share, but the aggregate purchase price payable for the total number of Shares purchasable under this Warrant (as adjusted) shall remain the same. Any adjustment under this Section 7(a) shall become effective at the close of business on the date the subdivision or combination becomes effective, or as of the record date of such dividend, or in the event that no record date is fixed, upon the making of such dividend.

(b) Reclassification, Reorganization and Consolidation. In case of any reclassification, capital reorganization or change in the capital stock of the Company (other than as a result of a subdivision, combination or stock dividend provided for in Section 7(a) above), then the Company shall make appropriate provision so that the Holder shall have the right at any time prior to the expiration of this Warrant to purchase, at a total price equal to that payable upon the exercise of this Warrant, the kind and amount of shares of capital stock and other securities and/or property of the Company receivable in connection with such reclassification, reorganization or change by the Holder of the same number of Shares as were purchasable by the Holder immediately prior to such reclassification, reorganization or change. In any such case appropriate provisions shall be made with respect to the rights and interest of the Holder so that the provisions hereof shall thereafter be applicable with respect to any shares of capital stock and other securities and/or property of the Company deliverable upon exercise hereof, and appropriate adjustments shall be made to the purchase price per Share payable hereunder, provided the aggregate purchase price shall remain the same.

(c) Notice of Adjustment. When any adjustment is required to be made in the number or kind of shares purchasable upon exercise of this Warrant, or in the Exercise Price, the Company shall promptly notify the Holder of such event and of the number of Shares or other securities or property of the Company thereafter purchasable upon exercise of this Warrant.

8. No Fractional Shares or Scrip. No fractional Shares or scrip representing fractional Shares shall be issued upon the exercise of this Warrant, but in lieu of such fractional Shares the Company shall make a cash payment therefor on the basis of the Exercise Price then in effect.

9. Representations of the Company. The Company represents that (i) all corporate actions (including reserving all Shares issuable upon exercise of this Warrant) on the part of the Company, its officers, directors and stockholders necessary for the sale and issuance of this Warrant have been taken and (ii) prior to the exercise of this Warrant, all corporate actions (including reserving all Shares issuable upon exercise of this Warrant) will have been taken by the Company and its officers, directors and stockholders that are necessary for the issuance of Shares to the Holder in conjunction with the exercise of this Warrant.

10. Representations and Warranties by the Holder. The Holder represents and warrants to the Company as follows:

(a) This Warrant and the Shares issuable upon the exercise thereof are being acquired for its own account, for investment and not with a view to, or for resale in connection with, any distribution or public offering thereof within the meaning of the Securities Act of 1933, as amended (the "**Act**"). Upon exercise of this Warrant, the Holder shall, if so requested by the Company, confirm in writing, in a form satisfactory to the Company, that the securities issuable upon exercise of this Warrant are being acquired for investment and not with a view toward distribution or resale.

(b) The Holder understands that this Warrant and the Shares have not been registered under the Act by reason of their issuance in a transaction exempt from the registration and prospectus delivery requirements of the Act pursuant to Section 4(a)(2) thereof and/or Regulation D promulgated thereunder, and that they must be held by the Holder indefinitely, and that the Holder must therefore bear the economic risk of such investment indefinitely, unless a subsequent disposition thereof is registered under the Act or is exempted from such registration.

(c) The Holder has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the purchase of this Warrant and the Shares purchasable pursuant to the terms of this Warrant and of protecting its interests in connection therewith.

(d) The Holder is able to bear the economic risk of the purchase of the Shares pursuant to the terms of this Warrant.

(e) The Holder is an "accredited investor" as such term is defined in Rule 501 of Regulation D promulgated under the Act.

11. Restrictive Legend.

The Shares (unless registered under the Act) shall be stamped or imprinted with a legend in substantially the following form:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR UNDER THE SECURITIES LAWS OF CERTAIN STATES. THESE SECURITIES MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED EXCEPT AS PERMITTED UNDER THE ACT AND APPLICABLE STATE SECURITIES LAWS PURSUANT TO REGISTRATION OR AN EXEMPTION THEREFROM.

If the Holder is a party to any other agreement with the Company requiring that specified legends be placed upon securities held by the Holder, the Shares will also contain such legends.

12. Lock-Up. In connection with the IPO and upon request of the Company or the underwriters managing the IPO, the Holder agrees not to register, offer, sell, contract to sell, grant any option to purchase or otherwise dispose of any securities of the Company, any securities convertible into or exercisable or exchangeable for securities of the Company, or any warrants to purchase securities of the Company (including, but not limited to, this Warrant and the Shares) without the prior written consent of the Company or such underwriters, as the case may be, for such period of time (not to exceed 180 days but subject to such extension or extensions as may be required by the underwriters) from the effective date of the IPO registration statement or the closing of the IPO as may be requested by the Company or such underwriters and to execute an agreement reflecting the foregoing as requested by the underwriters in connection with the Company's IPO. Each certificate or other instrument for Shares issued upon the exercise of this Warrant shall bear a legend substantially to the foregoing effect.

13. Rights of Stockholders. The Holder shall not be entitled, as the holder of this Warrant, to vote or receive dividends or be deemed the holder of the Shares or any other securities of the Company which may at any time be issuable on the exercise hereof for any purpose, nor shall anything contained herein be construed to confer upon the Holder, as such, any of the rights of a stockholder of the Company or any right to vote for the election of directors or upon any matter submitted to stockholders at any meeting thereof, or to give or withhold consent to any corporate action (whether upon any recapitalization, issuance of stock, reclassification of stock, change of par value, consolidation, merger, conveyance or otherwise) or to receive notice of meetings, or to receive dividends or subscription rights or otherwise until this Warrant shall have been exercised and the Shares purchasable upon the exercise hereof shall have become deliverable, as provided herein.

14. Expiration of Warrant; Notice of Certain Events Terminating This Warrant.

(a) This Warrant shall expire and shall no longer be exercisable upon the earlier to occur of:

(i) 5:00 p.m., Eastern Standard Time, on the third (3rd) anniversary of the issuance of this Warrant; or

(ii) Any Change of Control, provided the Company has complied with Section 14(b) in all material respects.

(b) The Company shall provide at least ten (10) calendar days' prior written notice of any event set forth in Section 14(a)(ii).

(c) Notwithstanding the provisions of this Section 14 or any other provision of this Warrant, if the Holder has not exercised this Warrant prior to the closing of a Change of Control, this Warrant shall automatically be deemed to be exercised in full on a cashless basis in the manner set forth in Section 4, without any further action on behalf of the Holder immediately prior to such closing.

15. Piggyback Registration Rights.

(a) If, at any time after the IPO, the Company thereafter determines to register shares of the Company's Common Stock under the Act for the purpose of effecting an underwritten public offering thereof for cash, the Company shall give written notice thereof to Holder; provided, however, that the Company shall not be required to give such notice to Holder if the proposed registration is a registration of a stock option, incentive compensation, profit sharing, or other employee benefit plan

(b) Upon receiving any notice required under paragraph (a) of this Section 15, Holder, if Holder desires to sell Registrable Securities (defined below) in such registration, shall provide written notice of such desire to participate in such registration to the Company on the form provided by the Company (the "**Piggy Back Registration Request**") within ten (10) days after the date of the Holder's notice. Such Piggy Back Registration Request shall be accompanied, on forms to be provided by the Company, by (i) a Power of Attorney, duly executed by Holder; (ii) a Letter of Transmittal and Custody Agreement, duly executed by Holder; (iii) the stock certificates representing the Registrable Securities requested to be registered, accompanied by stock powers duly executed in blank by or on behalf of Holder; and (iv) any other documents reasonably necessary to facilitate Holder's participation in such registration (collectively, the "**Registration Documents**"). The Company will use its best efforts to register all of the Registrable Securities requested to be registered on its Piggy Back Registration Request concurrently with the registration of Common Stock by the Holder on its own behalf and on the same terms and conditions of offering and sale as contemplated and agreed to by the Company (the "**Piggy Back Registration**"). If a requested registration pursuant to this Section 15 involves an underwritten offering, and the managing underwriter shall advise the Company in writing that, in its opinion, the number of securities requested to be included in such registration (including Registrable Securities) exceeds the number which can be sold in such offering, the Company will include in such registration (i) first, the securities the Company proposes to sell, if any, (ii) second, the securities that those certain stockholders of the Company propose to sell pursuant to their registration rights under that certain Amended and Restated Investors' Rights Agreement by and among the Company and the parties thereto, dated February 19, 2016, as amended from time to time, and (iii) third, the Registrable Securities of the Holder to be included in such registration. Holder must sell the Registrable Securities subject thereto on the same terms and conditions of the offering and sale (including, without limitation, purchase price and the underwriting discount per share) as agreed to by the Company in connection with its sale of the Common Stock thereunder. For the purposes hereof, the term "**Registrable Securities**" means the Common Stock received by Holder pursuant to an exercise under Section 3 of one or more Warrants.

(c) Holder shall pay (i) the expenses of any attorneys, accountants or other advisors or professionals which Holder engages in connection with its sale of the Registrable Securities pursuant to the Piggy Back Registration and (ii) all underwriting or brokerage commissions and discounts, if any, associated with the Registrable Securities being sold by it pursuant to the Piggy Back Registration. The Company shall pay all costs and expenses incurred by it associated with any Piggy Back Registration (including, without limitation, all legal and accounting fees and expenses, printing costs and filing fees incurred by the Company).

16. Notices. All notices and other communications required or permitted hereunder shall be in writing, shall be effective when given, and shall in any event be deemed to be given upon receipt or, if earlier, (i) five (5) days after deposit with the U.S. Postal Service or other applicable postal service, if delivered by first class mail, postage prepaid, (ii) upon delivery, if delivered by hand, (iii) one (1) business day after the business day of deposit with Federal Express or similar overnight courier, freight prepaid or (iv) one (1) business day after the business day of facsimile transmission, if delivered by facsimile transmission with copy by first class mail, postage prepaid, and shall be addressed (i) if to the Company, at 317 New Boston Street, Suite 210, Woburn, MA 01801, attention: Chief Executive Officer or at such other address or addresses as may have been furnished in writing by the Company to the Holder; or (ii) if to the Holder, at such address as is set forth on the signature page hereto, or at such other address or addresses as may have been furnished to the Company in writing by the Holder. If notice is given to the Company, a copy shall also be sent to Foley & Lardner, LLP, 975 Page Mill Road, Palo Alto, CA 9430, Attn: E. Thom Rumberger Jr., Esq.

17. Governing Law; Venue. This Warrant and all actions arising out of or in connection with this Warrant shall be governed by and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law provisions of the State of Delaware or of any other state. The Company and the Holder (i) hereby irrevocably and unconditionally submit to the jurisdiction of any federal or state court located within Middlesex County, Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon this Warrant, (ii) agree not to commence any suit, action or other proceeding arising out of or based upon this Warrant except in the federal or state courts located within Middlesex County, Massachusetts, and (iii) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Warrant or the subject matter hereof may not be enforced in or by such court.

Waiver of Jury Trial: THE COMPANY AND HOLDER HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS WARRANT OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE COMPANY AND HOLDER AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH OF THE COMPANY AND THE HOLDER HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

18. Rights and Obligations Survive Exercise of Warrant. Unless otherwise provided herein, the rights and obligations of the Company and Holder shall survive the exercise of this Warrant.

19. Expenses. If any action at law or in equity is necessary to enforce or interpret the terms of this Warrant, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

20. Entire Agreement; Amendments and Waivers. This Warrant and any other documents delivered pursuant hereto constitute the full and entire understanding and agreement between the Company and the Holder with regard to the subjects hereof and thereof. Nonetheless, any term of this Warrant may be amended and the observance of any term of this Warrant may be waived (either generally or in a particular instance and either retroactively or prospectively), with the written consent of the Company and the Holder; or if this Warrant has been assigned in part, by the holders or rights to purchase a majority of the shares originally issuable pursuant to this Warrant.

[signature page follows]

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed as of the date set forth above by its duly authorized officers.

SEQLL INC.

By: _____
Name:
Title:

[Signature page to Warrant to Purchase Shares of Common Stock]

EXHIBIT A

NOTICE OF EXERCISE

TO: SeqLL Inc.
317 New Boston Street, Suite 210
Woburn, MA 01801
Attn: Chief Executive Officer

1. The undersigned hereby elects to purchase _____ Shares of Common Stock of the Company pursuant to the terms of the attached Warrant.

2. Method of Exercise (Please initial the applicable blank):

___ The undersigned elects to exercise the attached Warrant by means of a cash payment, and tenders herewith payment in full for the purchase price of the shares being purchased, together with all applicable transfer taxes, if any.

___ If applicable, the undersigned elects to exercise the attached Warrant by means of the net exercise provisions of Section 4 of the Warrant.

3. Please issue a certificate or certificates representing said Shares in the name of the undersigned or in such other name as is specified below:

_____
(Name)

_____

_____
(Address)

4. The undersigned hereby represents and warrants that the aforesaid Shares are being acquired for the account of the undersigned for investment and not with a view to, or for resale, in connection with the distribution thereof, and that the undersigned has no present intention of distributing or reselling such Shares and all representations and warranties of the undersigned set forth in Section 10 of the attached Warrant (including Section 10(e) thereof) are true and correct as of the date hereof.

_____
(Signature)

_____
(Name)

_____ _____
(Date) (Title)

Exhibit 10.1

SEQLL INC.
2014 EQUITY INCENTIVE PLAN

As Amended and Restated effective on the IPO Date

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the 2014 Equity Incentive Plan (the "**Plan**"). The purpose of the Plan is to encourage and enable the officers, employees, directors and other key persons (including consultants and prospective employees) of **SeqLL Inc.**, a Delaware corporation (including any successor entity, the "**Company**"), and its Subsidiaries upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business to acquire a proprietary interest in the Company. It is anticipated that providing such persons with a direct stake in the Company's welfare will assure a closer identification of their interests with those of the Company and its stockholders, thereby stimulating their efforts on the Company's behalf and strengthening their desire to remain with the Company. The Plan was amended and restated effective on the IPO Date to make certain revisions in anticipation of the Company's initial public offering.

The following terms shall be defined as set forth below:

"***409A Affiliate***" means any corporation or other entity in an unbroken chain of corporations or other entities, beginning with the Company, in which each corporation or other entity (other than the last corporation or entity in the chain) has a controlling interest (within the meaning of Treasury regulation §1.414(c)-2(b)(2)(i) except that the language at "least 50 percent" shall be used in place of "at least 80 percent" each place it appears therein) in the corporation or other entity.

"***Act***" means the Securities Act of 1933, as amended from time to time, and the rules and regulations thereunder. Any reference to a specific provision in the Act shall include any successor provision thereto.

"***Affiliate***" has the meaning ascribed to such term in Rule 12b-2 under the Exchange Act. Notwithstanding the foregoing, for purposes of determining those individuals to whom an Option may be granted, the term "Affiliate" means any entity that, directly indirectly, through one or more intermediaries, controls, is controlled by or is under common control with the Company within the meaning of Sections 414(b) or (c) of the Code; provided that, in applying such provisions, the phrase "at least 50 percent" shall be used in place of "at least 80 percent" each place it appears therein.

"***Award***" or "***Awards***," except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Restricted Stock Awards, Unrestricted Stock Awards, Restricted Stock Units, or any combination of the foregoing.

"***Board***" means the Board of Directors of the Company.

"***Cause***" shall have the meaning set forth in the applicable Grantee's employment offer letter, severance letter or services agreement, or if the Grantee does not have an employment offer letter, severance agreement or services agreement with the Company (or the term "Cause" is not otherwise defined in any of the foregoing), then, unless otherwise defined in any Award agreement, Cause shall mean a vote of the Board resolving that the Grantee should be dismissed as a result of: (i) the commission of any act by the Grantee constituting financial dishonesty against the Company or its Subsidiaries (which act would be chargeable as a crime under applicable law); (ii) the Grantee engaging in any other act of dishonesty, fraud, intentional misrepresentation, moral turpitude, illegality or harassment which, as determined in good faith by the Board, would: (A) materially adversely affect the business or the reputation of the Company or any of its Subsidiaries with their respective current or prospective customers, suppliers, lenders and/or other third parties with whom such entity does or might do business; or (B) expose the Company or any of its Subsidiaries to a risk of civil or criminal legal damages, liabilities or penalties; (iii) the repeated failure by the Grantee to follow the directives of the chief executive officer of the Company or any of its Subsidiaries or Board; or (iv) any material misconduct, violation of the Company's or Subsidiaries' policies, or willful and deliberate non-performance of duty by the Grantee in connection with the business affairs of the Company or its Subsidiaries.

"***Code***" means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations promulgated thereunder. Any reference to a specific provision in the Code shall include any successor provision thereto.

"***Committee***" means the compensation committee of the Board, each member of which shall qualify as a "nonemployee director" within the meaning of Rule 16b-3 of the Exchange Act.

"***Dividend Equivalent Unit***" means the right to receive a payment, in cash or Shares, equal to the cash dividends or other cash distributions paid with respect to a Share. Dividend Equivalent Units may only be granted in connection with a grant of Restricted Stock Units according to the terms of Section 9.

"***Exchange Act***" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder. Any reference to a specific provision in the Exchange Act shall include any successor provision thereto.

"***Fair Market Value***" means, per Share on a particular date: (i) if the Shares are listed on a national securities exchange or a national market system, the closing sale price of a Share on the immediately preceding trading day on the national securities exchange on which the Stock is then traded; or (ii) if the Shares are not listed on a national securities exchange, but are traded in an over-the-counter market, the last sales price (or, if there is no last sales price reported, the average of the closing bid and asked prices) for the Shares on the immediately preceding trading day; or (iii) if the Shares are neither listed on a national securities exchange nor traded in an over-the-counter market, the price determined by the Committee, in its discretion, using a reasonable valuation method within the meaning of Code Section 409A. Notwithstanding the foregoing, in the case of the sale of Shares, the actual sale price shall be the Fair Market Value of such Shares.

"***Grantee***" means a Person who has been granted an Award under this Plan.

"***Incentive Stock Option***" means any Stock Option so designated by the Committee and otherwise qualified as an "incentive stock option" as defined in Section 422 of the Code.

"***IPO Date***" means the date on which the Shares are first sold to the public pursuant to an effective registration statement filed by the Company under the Act.

"***Non-Qualified Stock Option***" means any Stock Option that is not an Incentive Stock Option.

"***Person***" shall have the meaning provided in Section 3(a)(9) of the Exchange Act and used in Sections 13(d) and 14(d) thereof, including a "group" as defined in Section 13(d).

"***Option***" or "***Stock Option***" means the right to purchase Shares at a stated price for a specified period of time. An Option may either be an Incentive Stock Option or a Non-Qualified Stock Option.

"***Restricted Stock***" means Shares that are subject to a risk of forfeiture or restrictions on transfer which may lapse upon the completion of a period of service, achievement of performance goals, or a combination thereof.

"***Restricted Stock Unit***" means the right to receive one Share or a cash payment, the value of which is equal to the Fair Market Value of one Share.

"***Sale Event***" shall be deemed to have occurred as of the first day that any one or more of the following conditions is satisfied, including, but not limited to, the signing of documents by all parties and approval by all regulatory agencies, if required:

(i) Any Person becomes the "beneficial owner" (as such term is defined pursuant to rules promulgated under the Exchange Act), directly or indirectly, of securities of the Company representing fifty percent (50%) or more of the combined voting power of the Company's then outstanding securities (not including (A) any securities of the Company acquired and/or beneficially owned by such Person if such Person is an existing stockholder of the Company and (B) any securities acquired directly from the Company or its Affiliates);

(ii) The stockholders approve a plan of complete liquidation or dissolution of the Company;

(iii) The consummation of (A) an agreement for the sale or disposition of all or substantially all of the Company's assets (other than to an Excluded Person); or (B) a merger, consolidation or reorganization of the Company with or involving any other corporation, other than (1) a merger, consolidation or reorganization that would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity), at least fifty percent (50%) of the combined voting power of the voting securities of the Company (or such other surviving entity) outstanding immediately after such merger, consolidation or reorganization, or (2) a merger, consolidation or reorganization that would result in at least fifty percent (50%) of the combined voting power of the voting securities of the Company (or such other surviving entity) outstanding immediately after such merger, consolidation or reorganization being held by an Excluded Person; or

(iv) the following individuals cease for any reason to constitute a majority of the number of directors of the Company then serving: (A) individuals who, on the IPO Date, constituted the Board and (B) any new director (other than a director whose initial assumption of office is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of the Company, as such terms are used in Rule 14a-11 of Regulation 14A under the Exchange Act) whose appointment or election by the Board or nomination for election by the Company's shareholders was approved by a vote of at least two-thirds (2/3) of the directors then still in office who either were directors on the IPO Date, or whose appointment, election or nomination for election was previously so approved (collectively the "Continuing Directors"); provided, however, that individuals who are appointed to the Board pursuant to or in accordance with the terms of an agreement relating to a merger, consolidation, or share exchange involving the Company (or any direct or indirect subsidiary of the Company) shall not be Continuing Directors for purposes of this definition until after such individuals are first nominated for election by a vote of at least two-thirds (2/3) of the then Continuing Directors and are thereafter elected as directors by the shareholders of the Company at a meeting of shareholders held following consummation of such merger, consolidation, or share exchange; and, provided further, that in the event the failure of any such persons appointed to the Board to be Continuing Directors results in a Sale Event, the subsequent qualification of such persons as Continuing Directors shall not alter the fact that a Sale Event occurred;

An "**Excluded Person**" means: (i) the Company or any of its Affiliates; (ii) a trustee or other fiduciary holding securities under any employee benefit plan of the Company or any of its Affiliates; (iii) an underwriter temporarily holding securities pursuant to an offering of such securities; or (iv) a corporation owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their ownership of stock in the Company.

Notwithstanding the foregoing, with respect to an Award that is considered deferred compensation subject to Code Section 409A, if the occurrence of a "Sale Event" triggers payment under such Award, then the foregoing definition shall be deemed amended to the minimum extent necessary, if at all, so that the definition satisfies the requirements of a change of control under Code Section 409A.

"***Service Relationship***" means service to the Company or its successors or Subsidiaries as an employee, director or key person (including as an advisor or consultant).

"***Shares***" means Shares.

"***Stock***" means the Common Stock, par value $0.00001 per stock, of the Company, subject to adjustments pursuant to Section 3.

"***Subsidiary***" means any corporation in an unbroken chain of entities beginning with the Company if each of the corporations (other than the last corporation in the chain) owns stock possessing more than fifty percent (50%) of the total combined voting power of all classes of stock in one of the other corporations in the chain.

"***Termination Event***" means the termination of the Grantee's Service Relationship with the Company and its Subsidiaries for any reason whatsoever, regardless of the circumstances thereof, and including, without limitation, upon death, disability, retirement, discharge or resignation for any reason, whether voluntarily or involuntarily. The following shall not constitute a Termination Event: (i) a transfer to the employment of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another Subsidiary; or (ii) an approved leave of absence for military service or sickness, or for any other purpose approved by the Committee, if the employee's right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Committee otherwise so provides in writing. Notwithstanding the foregoing, with respect to an Award that is considered deferred compensation subject to Code Section 409A, if the occurrence of a "Termination Event" triggers payment under such Award, then the foregoing definition shall be deemed amended to the minimum extent necessary, if at all, so that the definition satisfies the requirements of a separation from service under Code Section 409A. Notwithstanding any other provision in this Plan or an Award to the contrary, if any Grantee is a "specified employee" within the meaning of Code Section 409A as of the date of his or her "separation from service" within the meaning of Code Section 409A, then, to the extent required by Code Section 409A, any payment made to the Grantee on account of such separation from service shall not be made before a date that is six (6) months after the date of the separation from service.

"***Unrestricted Stock Award***" means an Award of Shares that are not subject to any transfer restriction or any service requirement, performance requirement, or other vesting criteria, granted pursuant to Section 8.

SECTION 2. ADMINISTRATION OF PLAN; COMMITTEE AUTHORITY TO SELECT GRANTEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Committee, *provided*, *however*, that if at any time the Committee shall not be in existence, then the Board shall administer the Plan. In addition, to the extent applicable law permits, the Board may delegate any of its authority hereunder to another committee of the Board or one or more officers of the Company, and the Committee may delegate any of its authority hereunder to a sub-committee or to one or more officers of the Company, provided that no such delegation is permitted with respect to Awards made to individuals who are subject to Section 16 of the Exchange Act at the time any such delegated authority or responsibility is exercised unless the delegation is to another committee of the Board consisting entirely of "nonemployee directors" within the meaning of Rule 16b-3 of the Exchange Act. All references herein to the Committee shall be deemed to refer to the group then responsible for administration of the Plan at the relevant time (i.e., either the Board of Directors, the Committee, or any other committee, sub-committee or officer that the Board or the Committee delegates its authority to pursuant to this Section 2(a) to the extent of such delegation).

(b) Powers of Committee. The Committee shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the extent, if any, of Incentive Stock Options, Non-Qualified Stock Options, Restricted Stock Awards, Unrestricted Stock Awards or any combination of the foregoing, granted to any one or more Grantees;

(iii) to determine the number of Shares to be covered by any Award;

(iv) to determine and modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and Grantees, and to approve the form of written instruments evidencing the Awards;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award;

(vi) to impose any limitations on Awards granted under the Plan, including limitations on transfers, repurchase provisions and the like and to exercise repurchase rights or obligations;

(vii) subject to any restrictions applicable to Incentive Stock Options, to extend at any time the period in which Stock Options may be exercised; and

(viii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including related written instruments); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions, interpretations and other actions of the Committee shall be binding on all Grantees and any other individual with a right under the Plan.

(c) Indemnification. Neither the Board nor the Committee, nor any member of either or any delegatee thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Committee (and any delegatee thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under any directors' and officers' liability insurance coverage which may be in effect from time to time.

SECTION 3. STOCK ISSUABLE UNDER THE PLAN; DEPLETION OF RESERVE; REPLENISHMENT OF SHARES; CHANGES IN STOCK; SUBSTITUTION

(a) Stock Issuable. The maximum number of Shares reserved and available for issuance under the Plan shall be Three Million Five Hundred Thousand (3,500,000) Shares, subject to adjustment as provided in Section 3(e), all of which may be issued pursuant to Incentive Stock Options. The Shares available for issuance under the Plan may be authorized but unissued Shares or Shares reacquired by the Company and held in its treasury.

(b) Depletion of Reserve. The aggregate number of Shares reserved under Section 3(a) shall be depleted on the date of grant of an Award by the maximum number of Shares, if any, that may be issuable under an Award as determined at the time of grant. For the avoidance of doubt, Awards that may only be settled in cash (determined at the time of grant) shall not deplete the Share reserve.

(c) Replenishment of Shares Under this Plan. If (i) an Award lapses, expires, terminates or is cancelled without the issuance of Shares under the Award (whether due currently or on a deferred basis), (ii) it is determined during or at the conclusion of the term of an Award that all or some portion of the Shares with respect to which the Award was granted will not be issuable on the basis that the conditions for such issuance will not be satisfied, (iii) Shares are forfeited under an Award, (iv) Shares are issued under any Award and the Company subsequently reacquires them pursuant to rights reserved upon the issuance of the Shares, (v) an Award or a portion thereof is settled in cash, or shares are withheld by the Company in payment of the exercise price ir withholding taxes of an Award, then such Shares shall be recredited to the Plan's reserve and may again be used for new Awards under this Plan, but Shares recredited to the Plan's reserve pursuant to clause (iv) may not be issued pursuant to Incentive Stock Options.

(e) Changes in Stock.

(i) General Adjustment Provisions. If, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding Shares are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such Shares or other securities, or, if, as a result of any merger, consolidation or sale of all or substantially all of the assets of the Company, the outstanding Shares are converted into or exchanged for a different number or kind of securities of the Company or any successor entity (or a parent or subsidiary thereof), the Committee shall make an appropriate or proportionate adjustment in (i) the maximum number of shares reserved for issuance under the Plan; (ii) the number and kind of shares or other securities subject to any then outstanding Awards under the Plan; and (iii) the exercise price for each Share subject to any then outstanding Stock Options under the Plan. The adjustment by the Committee shall be final, binding and conclusive.

The Committee may also adjust the number of shares subject to outstanding Awards and the exercise price and the terms of outstanding Awards to take into consideration material changes in accounting practices or principles, extraordinary dividends, acquisitions or dispositions of stock or property or any other event if it is determined by the Committee that such adjustment is appropriate to avoid distortion in the operation of the Plan, provided that no such adjustment shall be made in the case of an Incentive Stock Option, without the consent of the grantee, if it would constitute a modification, extension or renewal of the Option within the meaning of Section 424(h) of the Code or would violate Section 422(d) of the Code.

(ii) Special Rules for Certain Awards. With respect to Awards of Incentive Stock Options, all adjustments made pursuant to (i) to must comply with the adjustment provisions in Code Section 422(b), and any adjustment made pursuant to this Section 3(e) to an Award that is exempt from Section 409A of the Code shall be made in manner that permits the Award to continue to be so exempt, and any adjustment to an Award that is subject to Section 409A of the Code shall be made in a manner that complies with the provisions thereof.

(iii) No Fractional Shares. No fractional Shares shall be issued under the Plan resulting from any such adjustment. The Committee may, in its discretion, make a cash payment in lieu of fractional shares or cancel such fractional shares for no consideration.

(iv) Certain Adjustments Automatic. Notwithstanding the foregoing, in the case of a stock dividend (other than a stock dividend declared in lieu of an ordinary cash dividend) or subdivision or combination of the Shares (including a reverse stock split), if no action is taken by the Committee, adjustments contemplated by this subsection that are proportionate shall nevertheless automatically be made as of the date of such stock dividend or subdivision or combination of the Shares.

(f) Substitute Awards. The Committee may grant Awards under the Plan in substitution for stock and stock based awards held by employees, directors or other key persons of another corporation in connection with a merger or consolidation of the employing corporation with the Company or a Subsidiary or the acquisition by the Company or a Subsidiary of property or stock of the employing corporation. The Committee may direct that the substitute awards be granted on such terms and conditions as the Committee considers appropriate in the circumstances. Any substitute Awards granted under the Plan shall not count against the share limitation set forth in Section 3(a).

SECTION 4. TREATMENT UPON SALE EVENT

(a) Effect of a Sale Event. The Committee may specify in an agreement relating to an Award the effect of a Sale Event upon such Award. If such agreement, or any other agreement between the Grantee and the Company or an Affiliate, does not specify the effect of a Sale Event on the Award, then:

(i) Upon such Sale Event, if the successor or surviving corporation (or parent thereof) so agrees, then, without the consent of any Grantee (or other person with rights in an Award), some or all outstanding Awards may be assumed, or replaced with the same type of award with similar terms and conditions, by the successor or surviving corporation (or parent thereof) in the Sale Event. If applicable, each Award which is assumed by the successor or surviving corporation (or parent thereof) shall be appropriately adjusted, immediately after such Sale Event, to apply to the number and class of securities which would have been issuable to the Grantee upon the consummation of such Sale Event had the Award been exercised, vested or earned immediately prior to such Sale Event, and such other appropriate adjustments in the terms and conditions of the Award shall be made. If the Grantee experiences a Termination Event due to (A) the successor or surviving corporation terminating the Grantee's service without Cause, (B) by reason of the Grantee's death or Disability, or (C) by the Grantee resigning for "good reason," as defined in any employment, retention, change of control, severance or similar agreement between the Grantee and the Company or any Affiliate, if any, in any case within twenty-four (24) months following the Sale Event, all of the Grantee's Awards that are in effect as of the date of such Termination Event shall be vested in full or deemed earned in full (assuming target performance goals provided under such Award were met, if applicable) effective on the date of such Termination Event.

(ii) To the extent the purchaser, successor or surviving entity (or parent thereof) in the Sale Event does not assume the Awards or issue replacement awards as provided in clause (i), then immediately prior to the effective date of the Sale Event:

(A) Each Option that is then held by a Grantee who has a Service Relationship with Company or an Affiliate on the effective date of the Sale Event shall become immediately and fully vested, and, unless otherwise determined by the Board or Committee, all Options shall be cancelled on the date of the Sale Event in exchange for a cash payment equal to the excess of the Sale Price (as defined below) of the Shares covered by the Option that is so cancelled over the exercise price of such Shares under the Option; *provided, however,* that all Options that have an exercise price that is less than the Sale Price shall be cancelled for no consideration.

(B) Restricted Stock and Restricted Stock Units (that are not subject to any performance goals) that are not then vested shall vest in full and be settled, and any Dividend Equivalent Units that are not vested shall vest (to the same extent as the Restricted Stock Units to which they relate) and be paid; and

(C) All Awards subject to performance goals that are earned but not yet paid shall be paid, and all Awards subject to performance goals for which the performance period has not expired shall be cancelled in exchange for a cash payment equal to the amount that would have been due under such Award(s) assuming target performance goals provided under such Award were met, if applicable (or, if higher, based on actual performance through the date of such Sale Event).

"**Sale Price**" shall the per Share price paid or deemed paid in the Sale Event, as determined by the Committee. For purposes of this clause (ii), if the value of an Award is based on the Fair Market Value of a Share, Fair Market Value shall be deemed to mean the Sale Price.

(b) Certain Limits on Payments. Solely with respect to awards granted on and after the IPO Date, and except as otherwise expressly provided in any agreement between a Grantee and the Company or an Affiliate, if the receipt of any payment by a Grantee under the circumstances described above would result in the payment by the Grantee of any excise tax provided for in Section 280G and Section 4999 of the Code, then the amount of such payment shall be reduced to the extent required to prevent the imposition of such excise tax.

SECTION 5. ELIGIBILITY

(a) General. Grantees under the Plan will be such full or part-time officers, employees, directors and key persons (including advisors and consultants) of the Company or a 409A Affiliate as are selected from time to time by the Committee in its sole discretion; provided that if a Stock Option is granted to any individual who does not provide services to the Company or a 409A Affiliate then such Stock Option shall be considered nonqualified deferred compensation subject to the provisions of Section 409A of the Code to the extent so required therein.

(b) Limits on Director Awards. The maximum value of Awards granted during a single fiscal year to any non-employee Director, taken together with any cash fees paid during the fiscal year to the non-employee Director in respect of the Director's service as a member of the Board during such year (including service as a member or chair of any committees of the Board), shall not exceed (i) $800,000 in total value for the first fiscal year in which the Director first serves as a member of the Board or (ii) $400,000 in total value for any subsequent fiscal year in which the Director serves as a member of the Board (in each case calculating the value of any such Awards based on the grant date fair value of such Awards for financial reporting purposes).

SECTION 6. STOCK OPTIONS

(a) Nature of Stock Options. A Stock Option is an Award entitling the recipient to acquire Shares, at such exercise price as determined by the Committee and subject to such restrictions and conditions as the Committee may determine at the time of grant. Conditions may be based on continuing employment (or other Service Relationship) and/or achievement of pre-established performance goals and objectives. The grant of a Stock Option shall be evidenced by a Stock Option agreement. The terms and conditions of each such agreement shall be determined by the Committee, and such terms and conditions may differ among individual Awards and Grantees.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a "subsidiary corporation" within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

(b) Grants of Stock Options. The Committee in its discretion may grant Stock Options to eligible directors, officers, employees and key persons of the Company or any Subsidiary. Stock Options granted under the Plan shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Committee shall deem desirable. If the Committee so determines, Stock Options may be granted in lieu of cash compensation at the Grantee's election, subject to such terms and conditions as the Committee may establish.

(i) Exercise Price. The exercise price per Share covered by a Stock Option granted under the Plan shall be determined by the Committee at the time of grant but shall not be less than 100% of the Fair Market Value on the date of grant. If an employee owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10% of the combined voting power of all classes of stock of the Company or any Subsidiary (a "**10% Owner**") is granted an Incentive Stock Option, then the exercise price of such Incentive Stock Option shall be not less than 110% of the Fair Market Value on the grant date.

(ii) Option Term. The term of each Stock Option shall be fixed by the Committee, but any Stock Option shall be exercisable within ten (10) years after the date the Stock Option is granted. If an employee that is a 10% Owner is granted an Incentive Stock Option, then the term of such Incentive Stock Option shall be no more than five (5) years from the date of grant.

(iii) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable at such time or times, whether or not in installments, as shall be determined by the Committee at or after the grant date and set forth in the Stock Option agreement. The Committee may at any time accelerate the exercisability of all or any portion of any Stock Option. A Grantee shall have the rights of a stockholder only as to shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options. A Grantee shall not be deemed to have acquired any such shares unless and until a Stock Option shall have been exercised pursuant to the terms hereof, the Company shall have issued and delivered the Shares to the Grantee, and the Grantee's name shall have been entered on the books of the Company as a stockholder.

(iv) Method of Exercise. Stock Options may be exercised in whole or in part, by giving written notice of exercise to the Company, specifying the number of shares to be purchased, or by such other method as provided in a Stock Option agreement. Payment of the aggregate exercise price may be made by one or more of the following methods or as otherwise provided by the Committee:

(A) In cash, by certified or bank check or other instrument acceptable to the Committee in U.S. funds payable to the order of the Company;

(B) If permitted by the Committee, through the delivery (or attestation to the ownership) of Shares that are beneficially owned by the Grantee and are not then subject to restrictions under any Company plan having a Fair Market Value on the exercise date equal to the aggregate exercise price; or

(C) If permitted by the Committee, by having the Company withhold a number of Shares otherwise issuable upon exercise of the Stock Option having a Fair Market Value on the exercise date equal to the aggregate exercise price.

No Shares so purchased will be issued to the Grantee until the Company has completed all steps required by law to be taken in connection with the issuance and sale of the Shares, including, without limitation, obtaining from the Grantee payment or provision for all withholding taxes due as a result of the exercise of the Option and payment of the aggregate exercise price. In the event a Grantee chooses to pay the aggregate exercise price by previously-owned Shares through the attestation method, the number of Shares transferred to the Grantee upon the exercise of the Stock Option shall be net of the number of shares attested to.

(c) Annual Limit on Incentive Stock Options. If the aggregate Fair Market Value (determined as of the time of grant) of the Shares with respect to which Incentive Stock Options granted under this Plan and any other plan of the Company or its parent and subsidiary corporations become exercisable for the first time by a Grantee during any calendar year exceed $100,000, such Stock Option shall constitute a Non-Qualified Stock Option to the extent that this limit is exceeded.

SECTION 7. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. A Restricted Stock Award is a grant (or sale, at such purchase price as determined by the Committee, in its sole discretion) of Shares that are subject to such restrictions and conditions as the Committee may determine at the time of grant. Conditions may be based on continuing employment (or other Service Relationship) and/or achievement of pre-established performance goals and objectives. The grant of a Restricted Stock Award will be evidenced by a Restricted Stock Award agreement. The terms and conditions of each such agreement shall be determined by the Committee, and such terms and conditions may differ among individual Awards and Grantees.

(b) Rights as a Stockholder. Except as otherwise provided in any Restricted Stock Award agreement, the Grantee shall be (i) considered the record owner of and shall be entitled to vote the Shares of Restricted Stock if and to the extent such Shares are entitled to voting rights and (ii) entitled to receive all dividends and any other distributions declared on the Shares; *provided*, *however*, that the Company is under no duty to declare any such dividends or to make any such distribution, and *provided further* that any dividends paid on Restricted Stock that is granted on and after the IPO Date will be accumulated and paid if and only to the same extent as the Restricted Stock vests.

(c) Vesting of Restricted Stock. The Committee at the time of grant shall specify the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which Restricted Stock shall become vested, subject to such further rights of the Company or its assigns as may be specified in the instrument evidencing the Restricted Stock Award.

SECTION 8. UNRESTRICTED STOCK AWARDS

(a) Grant or Sale of Unrestricted Stock. The Committee may, in its sole discretion, grant (or sell at par value or such higher purchase price determined by the Committee) Unrestricted Shares to any Grantee, in respect of past services, in exchange for cancellation of a compensation right, as a bonus, or any other valid consideration, or in lieu of any cash compensation due to such individual in accordance with (b) below.

(b) Elections to Receive Unrestricted Stock In Lieu of Compensation. Upon the request of a Grantee and with the consent of the Committee, a Grantee may, pursuant to an advance written election delivered to the Company no later than the date specified by the Committee, receive a portion of the cash compensation otherwise due to such Grantee in the form of shares of Unrestricted Stock either currently or on a deferred basis.

SECTION 9. RESTRICTED STOCK UNIT AWARDS

(a) Grant of Restricted Stock Units. The Committee shall determine all terms and conditions of an award of Restricted Stock Units, including but not limited to: (i) the number Restricted Stock Units granted; (ii) whether the Restricted Stock Units will be settled in cash, Shares, or a combination thereof; (iii) whether, as a condition for the Grantee to earn all or a portion of the Restricted Stock Units, one or more performance goals must be achieved; (iv) the length of the vesting and/or performance period and, if different, the date on which payment of cash or Shares, as applicable, will be mad; and (v) whether the grant will include the right to receive Dividend Equivalent Units. The grant of Restricted Stock Units shall be evidenced by a Restricted Stock Unit agreement.

(b) Dividend Equivalent Units. The Committee shall determine all terms and conditions of an award of Dividend Equivalent Units, including whether payment will be made in cash or Shares, *provided however*, that no Dividend Equivalent Units may be paid with respect to Restricted Stock Units that are not earned or that do not become vested.

SECTION 10. TRANSFERABILITY; LOCKUP

(a) Transferability. Awards are not transferable other than by will or the laws of descent and distribution, unless and to the extent the Committee allows a Grantee to: (i) designate in writing a beneficiary to exercise the Award or receive payment under the Award after the Grantee's death; (ii) transfer an Award to the former spouse of the Grantee as required by a domestic relations order incident to a divorce; or (iii) transfer an Award; provided, however, that with respect to clause (iii) above the Grantee may not receive consideration for such a transfer of an Award.

(b) Lockup Provision. Each Grantee agrees that he, she or it will not, without the prior written consent of the managing underwriter (if any), during (i) the period commencing on the IPO Date and ending on the date specified by the Company and/or the managing underwriter (not to exceed 210 days following the IPO Date); or (ii) during the 90 day period following the effective date of any other registration statement filed by the Company under the Act: (a) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of capital stock held immediately prior to the effectiveness of the applicable registration statement; or (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the capital stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of capital stock or other securities, in cash or otherwise. The underwriters in connection with any applicable offering and associated registration statement are intended third-party beneficiaries of this Section 10(b) and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Grantee further agrees to execute such agreements as may be reasonably requested by the Company and/or the underwriters in connection with any applicable offering and any associated registration statement that are consistent with this Section 10(b) or that are necessary to give further effect thereto. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the shares of capital stock of each Grantee (and transferees and assignees thereof) until the end of such restricted period.

If, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of shares of the Company's stock, the restrictions contained in this Section 10(b) shall apply with equal force to additional and/or substitute securities, if any, received by the Grantee in exchange for, or by virtue of his or her ownership of the Shares issued hereunder.

SECTION 11. TAX WITHHOLDING

(a) Payment by Grantee. Each Grantee shall, no later than the date as of which the value of an Award or of any Stock or other amounts received thereunder first becomes includable in the gross income of the Grantee for Federal income tax purposes, pay to the Company, or make arrangements satisfactory to the Committee regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld with respect to such income. The Company and its Subsidiaries shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the Grantee. The Company's obligation to issue Shares to any Grantee is subject to and conditioned on any such tax obligations being satisfied by the Grantee.

(b) Payment in Stock. If approved by the Committee, a Grantee may elect to satisfy any tax withholding obligations, in whole or in part, by (i) authorizing the Company to withhold from Shares subject to, or to be issued pursuant to, any Award or (ii) transferring to the Company Shares that the Grantee beneficially owns, in either case having a Fair Market Value (as of the date the withholding is effected) equal to the amount to be withheld, provided that the amount to be withheld in Shares may not exceed the total maximum statutory tax withholding obligations associated with the transaction to the extent needed for the Company and its Affiliates to avoid an accounting charge.

(c) No Guarantee of Tax Treatment. Notwithstanding any provisions of the Plan, the Company does not guarantee to any Grantee or any other Person with an interest in an Award that any Award intended to be exempt from Section 409A of the Code shall be so exempt, nor that any Award intended to comply with Section 409A of the Code shall so comply, or any Option intended to qualify as an Incentive Stock Option so qualifies, nor will the Company or any Affiliate indemnify, defend or hold harmless any individual with respect to the tax consequences of any such failure.

SECTION 12. AMENDMENTS AND TERMINATION

(a) Term of Plan. This Plan, as amended and restated, shall become effective upon the IPO Date, provided that the Company's stockholders have approved the Plan, as amended and restated, on or prior to such date in accordance with applicable law. The Plan shall continue until all Shares reserved for issuance hereunder have been issued, or, if earlier, until such time as the Committee terminates the Plan pursuant to this Section 12. No Incentive Stock Options may be granted after the ten (10) year anniversary of the date of stockholder approval of the amendment and restatement of the Plan unless the shareholders of the Company have approved an extension of this Plan for such purpose.

(b) Termination and Amendment of Plan. The Board may, at any time, amend, terminate or discontinue the Plan, subject to the following limitations:

(i) shareholders must approve any amendment of this Plan to the extent the Company determines such approval is required by: (A) Section 16 of the Exchange Act, (B) the Code (including, but not limited to Section 422 of the Code), (C) the listing requirements of any principal securities exchange or market on which the Shares are then traded, or (D) any other applicable law; and

(ii) shareholders must approve any of the following Plan amendments: (A) an amendment to materially increase any number of Shares reserved for issuance hereunder (except as permitted by Section 3), or (B) an amendment that would diminish the protections afforded by Section 12(d).

Notwithstanding the foregoing, the authority of the Board and the Committee to administer the Plan with respect to then-outstanding Awards will extend beyond the date of this Plan's termination. In addition, termination of this Plan will not affect the rights of Grantees with respect to Awards previously granted to them, and all unexpired Awards will continue in force and effect after termination of this Plan except as they may lapse or be terminated by their own terms and conditions.

(c) Amendment, Modification, Cancellation and Disgorgement of Awards.

(i) Except as provided in Section 12(d) and subject to the requirements of this Plan, the Committee may modify, amend or cancel any Award; *provided* that, except as otherwise provided in the Plan or the Award agreement, any modification or amendment that materially diminishes the rights of the Grantee, or the cancellation of an Award, shall be effective only if agreed to by the Grantee or any other person(s) as may then have an interest in such Award, but the Company need not obtain Grantee (or other interested party) consent for the modification, amendment or cancellation of an Award pursuant to the provisions of subsection (ii) or Section 3(e), or Section 4 or as follows: (A) to the extent the Committee deems such action necessary to comply with any applicable law or the listing requirements of any principal securities exchange or market on which the Shares are then traded; (B) to the extent the Committee deems necessary to preserve favorable accounting or tax treatment of any Award for the Company; or (C) to the extent the Committee determines that such action does not materially and adversely affect the value of an Award or that such action is in the best interest of the affected Grantee (or any other person(s) as may then have an interest in the Award). Notwithstanding the foregoing, unless determined otherwise by the Committee, any such amendment shall be made in a manner that will enable an Award intended to be exempt from Code Section 409A to continue to be so exempt, or to enable an Award intended to comply with Code Section 409A to continue to so comply.

(ii) Notwithstanding anything to the contrary in an Award agreement, the Committee shall have full power and authority to terminate or cause a Grantee to forfeit the Award, and require a Grantee to disgorge to the Company any gains attributable to the Award, if the Grantee engages in any action constituting, as determined by the Committee in its discretion, Cause for termination, or a breach of any Award agreement or any other agreement between the Grantee and the Company or an Affiliate concerning noncompetition, nonsolicitation, confidentiality, trade secrets, intellectual property, nondisparagement or similar obligations.

(iii) Any Awards granted pursuant to this Plan, and any Shares issued or cash paid pursuant to an Award, shall be subject to any recoupment or clawback policy that is adopted by the Company from time to time, or any recoupment or similar requirement otherwise made applicable to the Company by law, regulation or listing standards.

(d) Repricing and Backdating Prohibited. Notwithstanding anything in this Plan to the contrary, and except for the adjustments provided for in Section 3, neither the Committee nor any other person may (i) amend the terms of outstanding Options to reduce the exercise or grant price of such outstanding Options; (ii) cancel outstanding Options in exchange for Options with an exercise or grant price that is less than the exercise or grant price of the original Options; or (iii) cancel outstanding Options with an exercise or grant price above the current Fair Market Value of a Share in exchange for cash or other securities. In addition, the Committee may not make a grant of an Option with a grant date that is effective prior to the date the Committee takes action to approve such Award.

SECTION 13. TERMINATION EVENT

Except as otherwise provided in any Award agreement or the Grantee's employment offer letter, severance letter or services agreement, or as determined by the Committee at the time of such Termination Event:

(a) If a Grantee experiences Termination Event due to Cause, a Grantee shall forfeit all outstanding Awards immediately upon such termination. For the avoidance of doubt, the Grantee will be prohibited from exercising any Stock Options on and after his or her termination date.

(b) If a Grantee experiences a Termination Event due to the Grantee's death or disability (at a time when the Grantee could not have been terminated for Cause), the Grantee shall forfeit the unvested portion of any Award, and any vested Options shall remain exercisable until the earlier of the Option's original expiration date or twelve (12) months from the date of Grantee's termination.

(c) If a Grantee experiences a Termination Event for any reason other than Cause, death or disability (at a time when the Grantee could not have been terminated for Cause), then the Grantee shall forfeit the unvested portion of any Award, and any vested Options shall remain exercisable until the earlier of the Award's original expiration date or three (3) months from the date of Grantee's termination.

SECTION 14. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a Grantee, a Grantee shall have no rights greater than those of a general creditor of the Company unless the Committee shall otherwise expressly determine in connection with any Award or Awards. In its sole discretion, the Committee may authorize the creation of trusts or other arrangements to meet the Company's obligations to deliver Stock or make payments with respect to Awards hereunder, provided that the existence of such trusts or other arrangements is consistent with the foregoing sentence.

SECTION 15. GENERAL PROVISIONS

(a) No Distribution; Compliance with Legal Requirements. The Committee may require each person acquiring Stock pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the Shares without a view to distribution thereof. No Shares shall be issued pursuant to an Award until all applicable securities law and other legal requirements have been satisfied.

(b) Delivery of Stock Certificates; Book Entry; Legends and Stop-Transfer Restrictions. Stock certificates to Grantees under this Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the Grantee, at the Grantee's last known address on file with the Company. In addition, the issuance of Shares under the Plan may be effected on a non-certificated or book-entry basis, to the extent not prohibited or required by applicable law or listing standards and so long as such issuance is in compliance with the applicable rules of any stock exchange that the Shares are then traded on. The Company may include appropriate restrictive legends or enter appropriate stop-transfer orders with respect to Shares issued under the Plan.

(c) Other Compensation Arrangements; No Employment Rights. Nothing contained in this Plan shall prevent the Board from adopting other or additional compensation arrangements, including trusts, and such arrangements may be either generally applicable or applicable only in specific cases. The adoption of this Plan and the grant of Awards do not confer upon any employee any right to continued employment with the Company or any Subsidiary.

(d) Designation of Beneficiary. Each Grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award or receive any payment under any Award payable on or after the Grantee's death. Any such designation shall be on a form provided for that purpose by the Committee and shall not be effective until received by the Committee. If no beneficiary has been designated by a deceased Grantee, or if the designated beneficiaries have predeceased the Grantee, the beneficiary shall be the Grantee's estate.

(e) 409A. The provisions of Code Section 409A are incorporated into this Plan to the extent necessary for any Award that is subject to Code Section 409A to comply therewith.

(f) Foreign Participation. To assure the viability of Awards granted to Grantees employed or residing in foreign countries, the Committee may provide for such special terms as it may consider necessary or appropriate to accommodate differences in local law, tax policy, accounting or custom. Moreover, the Committee may approve such supplements to, or amendments, restatements or alternative versions of, this Plan as it determines is necessary or appropriate for such purposes. Any such amendment, restatement or alternative versions that the Committee approves for purposes of using this Plan in a foreign country will not affect the terms of this Plan for any other country. In addition, all such supplements, amendments, restatements or alternative versions must comply with the provisions of Section 12.

SECTION 16. GOVERNING LAW

This Plan and all Awards and actions taken thereunder shall be governed by, and construed in accordance with, the laws of the State of Delaware, applied without regard to conflict of law principles.

SECTION 17. DISPUTE RESOLUTION

(a) Except as provided below, any dispute arising out of or relating to this Plan or any Award made hereunder, or any agreement executed in connection herewith, or the breach, termination or validity of this Plan, any such Award or any such agreement, shall be finally settled by binding arbitration conducted in accordance with the Rules of Arbitration of the American Arbitration Association ("AAA") by three (3) arbitrators appointed in accordance with the said rules unless the parties agree on the name of a sole arbitrator, and judgment upon the award rendered by the arbitrator(s) may be entered by any court having jurisdiction thereof. The place of arbitration shall be California.

(b) The arbitration shall commence within 60 days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three (3) depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven (7) business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party's witness or expert. The arbitrator's decision and award shall be made and delivered within six (6) months of the selection of the arbitrator. The arbitrator's decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, each recipient of an Award hereunder, each party to an agreement governed hereby and any other holder of Stock issued under this Plan (each, a "**Party**") covenants and agrees that such party will participate in the arbitration in good faith. This Section 16 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding; (ii) hereby waives, and agrees not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution (except as protected by applicable law), that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Plan or the subject matter hereof may not be enforced in or by such court; and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

DATE APPROVED BY BOARD OF DIRECTORS: _____

DATE APPROVED BY STOCKHOLDERS: _____

Exhibit 10.2

LICENSE AGREEMENT

This License Agreement (this "Agreement") is made this 15th day of March, 2013, by and between Helicos Biosciences Corporation, a Massachusetts corporation and Chapter 11 debtor-in-possession or its assignee ("Helicos" or the "Licensor"), for the benefit of SEQLL, LLC, a Massachusetts limited liability company (the "Licensee").

WITNESSETH:

WHEREAS, Helicos is debtor in possession in the case under Chapter 11 of the United States Bankruptcy Code entitled In re Helicos Biosciences Corporation, Case No. 12-19091 – FJB (the "Chapter 11 Case"), pending in the United States Bankruptcy Court for the District of Massachusetts, Eastern Division (the "Court").

WHEREAS, on March 5, 2013, Helicos filed a Motion to (i) Sell Certain Assets Free and Clear (ii) Assign Certain Obligations and (iii) Grant Non-Exclusive License (the "Sale Motion") [Docket No. 96] in connection with the Helicos' Chapter 11 Case, seeking authority (a) to sell certain equipment, supplies and related assets free and clear of liens, claims and other interests, (b) to assign certain obligations and the right to any revenue associated therewith, and (c) to grant a non-exclusive license to certain intellectual property owned by Helicos.

WHEREAS, on March 15, 2013, the United States Bankruptcy Court for the District of Massachusetts entered an Order allowing the Sale Motion [Docket No. 112] (the "Sale Order").

WHEREAS, Helicos and the Licensee have entered into a certain definitive term sheet (the "Term Sheet") dated March 4, 2013, whereby Helicos shall, among other things, license certain intellectual property owned by Helicos including patents and patent applications relating to gene sequencing, which are listed, to the best Helicos' knowledge without input from its intellectual counsel, in Schedule A attached hereto (the "Intellectual Property") to Licensee.

WHEREAS, Helicos desires to license the Intellectual Property to Licensee, and Licensee wishes to obtain such a license, solely for the purpose of allowing the Licensee to engage in contract gene sequencing, supporting Helicos' customer base and potentially making improvements to the Helicos' existing technology, all on the terms and conditions below.

NOW THEREFORE, in consideration of the mutual obligations set forth in the terms and conditions below, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

Section 1. Definitions

(a) "Affiliate" shall mean any corporation, partnership or other business organization that directly or indirectly through one or more intermediaries controls, or is under common control with, or is controlled by, Licensee. "Control" shall mean (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or participating shares entitled to vote for the election of directors; and (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest or the power to direct the management and policies of such entity.

(b) "Field" shall mean the use of the Intellectual Property solely for the purpose of allowing the SUBLICENSEEE to engage in contract gene sequencing, supporting HELICOS' customer base and potentially making improvements to the HELICOS' existing technology.

(c) "Intellectual Property" means any and all intellectual property owned by Helicos, as set forth, to the best of Helicos' knowledge without input from its intellectual property counsel, in Schedule A attached hereto.

(d) "Licensed Process" shall mean any process that would, in the absence of the licenses granted herein, infringe one or more Valid and Enforceable Claim of any of the Intellectual Property.

(e) "Licensed Product" shall mean any product that would, in the absence of the licenses granted herein, infringe one or more Valid and Enforceable Claim of any of the Intellectual Property, or, that when used, would constitute practice of a Licensed Process.

(f) "Territory" shall mean the world.

(g) "Valid and Enforceable Claim" shall mean a claim of an issued patent in the Intellectual Property that has not been held to be invalid or unenforceable by a court or other governmental agency of competent jurisdiction over such issued patent in a proceeding from which no appeal can be or has been taken.

Section 2. Grant: Helicos hereby grants to Licensee and Licensee hereby accepts a perpetual, non-exclusive, royalty-free license (the "License") to use the Intellectual Property to make, have made, use, have used, offer for sale, have offered for sale, sell, have sold, import and have imported, lease or have leased Licensed Products, and practice or have practiced Licensed Processes in the Territory for the life of the Intellectual Property, in the Field only. Licensee shall not have the right to sub-license the Intellectual Property to any third party or to make any assignment of this License, and any such attempted sub-license or assignment shall constitute a material breach of this License, *provided*, *however*, that Licensee shall be deemed to license (with permission) to each and every entity that is an Affiliate of the Licensee, but solely for the period when such entity has such status. This License shall not include intellectual property (i) not owned by Helicos or (ii) licensed by Helicos from any third party.

Section 3. Enforcement of Intellectual Property: Licensee shall have the sole and exclusive right and obligation, to enforce its rights in the Intellectual Property against any third party infringement.

Section 4. No Obligations of Helicos: Notwithstanding anything to the contrary in this License Agreement, Helicos shall have no obligation whatsoever under this License Agreement, including to prosecute any patent application or to maintain any rights to the Intellectual Property by payment of fees to any governmental entity.

Section 5. Term and Termination:

(a) In the event that Licensee materially defaults in the performance of its obligations hereunder, or under that certain (i) Secured Promissory Note in the original principal amount of $500,000 from the Licensee for the benefit of Helicos, (ii) Bill of Sale by Helicos for the benefit of the Licensee, (iii) Assignment and Assumption Agreement by and between Helicos and Licensee, (iv) Royalty Agreement by and between Helicos and Licensee, (v) Security Agreement by and between Helicos and Licensee, (vi) letter agreement between the Licensee, Daniel R. Jones (the "Founding Executive") and Helicos, each of even date hereof (together, the "Transaction Documents"), or (vii) any other agreement of Licensee that contemplates any obligation that is secured by a first priority lien on assets of the Licensee inasmuch as such assets purchased by Licensee from Helicos, Helicos shall have the right to give Licensee written notice requiring it to cure such default. In addition, the failure of the Founding Executive to continue to work full-time for the Licensee shall constitute an event of default under this License Agreement. If any event of default is not remedied within thirty (30) days after receipt of such notice, Helicos shall be entitled to terminate this License Agreement by giving notice to take effect immediately.

(b) This License Agreement shall automatically terminate if Licensee dissolves or ceases to conduct its business, if Licensee files a petition in bankruptcy or insolvency or applies for the appointment of receiver or trustee concerning its assets, or if Licensee is served with an involuntary petition against it, filed in any insolvency proceeding, and such petition is not dismissed within sixty (60) days after its filing.

(c) The parties' respective obligations under Section 4, 5, 6, 7 and 8 shall survive termination of this Agreement, whether by expiration or otherwise for any reason.

Section 6. Representations and Warranties

(a) Helicos represents and warrants to Licensee that:

(i) Pursuant to the Sale Order, it has the right to enter into this License of the Intellectual Property;

(b) Licensee represents and warrants to Helicos that:

(i) Licensee is a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts, and has all requisite corporate power and authority to execute, deliver, and perform its obligations under this License Agreement and to consummate the transactions contemplated thereby; and

(ii) this License Agreement does not and will not conflict with, contravene, or constitute a default under or violation of any provision of applicable law binding upon Licensee, or any agreement, commitment, instrument or other arrangement to which Licensee is a party or by which it is bound.

(c) HELICOS PROVIDES THE LICENSE OF THE INTELLECTUAL PROPERTY TO LICENSEE ON AN "AS IS" BASIS ONLY. WITHOUT LIMITING THE FOREGOING, HELICOS DOES NOT MAKE ANY OTHER REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE INTELLECTUAL PROPERTY OR THE USE THEREOF, AND HELICOS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY SUBJECT MATTER HEREUNDER OR USE THEREOF, AND HELICOS DOES NOT ASSUME ANY RESPONSIBILITY WHATSOEVER WITH RESPECT TO THE DESIGN, DEVELOPMENT, MANUFACTURE, USE, SALE OR OTHER DISPOSITION BY LICENSEE or LICENSEE AFFILIATE OF LICENSED PRODUCTS. Licensee has not relied on any oral or written statements or any other materials provided by Helicos in connection with this License Agreement and Licensee represents that the decision to enter into this License Agreement is based solely on Licensee's independent due diligence.

(d) Helicos shall have no liability or obligation in respect of any infringement of any patent or other right of third parties due to Licensee's activities under the License or otherwise. **In no event shall Helicos be responsible or liable for any direct, indirect, special, incidental, or consequential damages or lost profits or other economic loss or damage with respect to Licensed Products regardless of the legal theory. The limitations on liability contained in this Article apply even though Helicos may have been advised of the possibility of such damage.**

(e) Licensee hereby agrees to indemnify, defend, save and hold Helicos, its members, managers, directors, officers, employees, and agents, harmless from and against any third party claims, demands, or actions alleging or seeking recovery or other relief for any liability, cost, fee, expense, loss, or damage arising or resulting from the use of the Intellectual Property or Licensed Products by Licensee, its customers or end-users, however the same may arise. Licensee shall not, and shall require that its Affiliates not, make any statements, representations or warranties whatsoever to any person or entity, or accept any liabilities or responsibilities whatsoever from any person or entity that are inconsistent with any disclaimer or limitation included in this section.

(f) Licensee shall in the performance of any investigation, testing, and solicitation of government approvals pertaining to the use of the Intellectual Property, exercise at least the same degree of diligence which any reasonable and prudent manufacturer exercises in the investigation, testing, and solicitation of government approvals for an invention of similar class or utility invented by employees of and owned by the manufacturer.

Section 7. Miscellaneous

(a) This License Agreement and the License granted herein shall not be assigned by Licensee, and Licensee shall not delegate its obligations hereunder, to any party without the prior written consent of Helicos, which consent may be withheld in the sole business judgment of Helicos.

(b) This License Agreement constitutes the entire agreement between the parties and supersedes all previous agreements, understandings and arrangements, whether written or oral, with respect to the subject matter hereof.

(c) No amendments, changes, modifications or alterations of this Sub-License Agreement shall be binding upon either party unless in writing and signed by both parties.

(d) Neither party will be responsible for delays resulting from causes beyond the reasonable control of such party, including without limitation fire, explosion, flood, war, strike or riot, provided that the nonperforming party uses commercially reasonable efforts to remove such causes of non-performance and continues performance under this License Agreement with reasonable dispatch whenever such causes are removed.

(e) All titles and captions in this License Agreement are for convenience only and shall not be interpreted as having any substantive meaning.

(f) In the event that a court of competent jurisdiction holds that a particular provision or requirement of this License Agreement is in violation of any law, such provision or requirement shall not be enforced but replaced by a valid and enforceable provision or requirement which will achieve as far as possible the business intentions of the parties. All other provisions and requirements of this License Agreement, however, shall remain in full force and effect.

(g) Neither party will issue any press release or other public announcements relating to this License Agreement without obtaining the other party's written approval (other than as required by law) which approval will not be unreasonably withheld.

(h) This License Agreement and the grant of the license described herein are subject to the terms of the Bayh-Dole Act, 35 U.S.C. 200-212, and its applicable regulations.

Section 8. Confidentiality

(a) Licensee and Helicos agree that the content of this License Agreement as well as any financial or other information that either party may learn from the other during the term of this License Agreement shall be treated confidentially by both Licensee and Helicos.

(b) In the event of scientific discussions between Helicos and Licensee, or any of them, whether orally or in writing, the parties mutually agree to maintain in confidence any Confidential Information exchanged between them. For purposes of this Section, Confidential Information shall be any disclosure of proprietary information by one entity to the other that is marked or, in the case of oral disclosure is confirmed in writing within thirty (30) days of such disclosure, as being confidential information of the entity. The parties mutually agree not to disclose such Confidential Information to any third party. Confidential Information under this Section shall not include any information that is or becomes publicly available without breach of this Section or information that is known to the party receiving it prior to disclosure by the disclosing entity.

Section 9. Notices

Any notice required or permitted to be given under this License Agreement shall be considered properly given if sent by mail, facsimile, or courier delivery to the respective address of each party as follows:

If to Helicos:

HELICOS BIOSCIENCES CORPORATION
c/o Murtha Cullina LLP
99 High Street
Boston, MA 02110, U.S.A.
Attn: Daniel C. Cohn
Fax: 617-210-7058

If to Licensee:

SEQLL, LLC
866 East 5th Street
Unit 2
Boston, MA 02127 USA
Attn: Daniel R. Jones
Fax:_____

Section 10. Governing Law and Jurisdiction

Any dispute under this License Agreement shall be adjudicated under the laws of the Commonwealth of Massachusetts without regard to its choice of law principles. Both parties to this License Agreement agree to submit to the exclusive jurisdiction of the Federal District Court in Massachusetts and further agree that such court has personal jurisdiction over the parties.

IN WITNESS WHEREOF, this Agreement has been duly executed and delivered by (i) a duly authorized officer of Licensee and (ii) a duly authorized officer of Helicos as of the date first above written.

SELLER:

HELICOS BIOSCIENCES CORPORATION

By: /s/ Jeffrey R. Moore
Name: Jeffrey R. Moore
Title: SVP & CFO

Accepted and agreed:

PURCHASER:

SEQLL, LLC

By: /s/ Daniel R. Jones
Name: Daniel R. Jones
Title: Manager

SCHEDULE A

Helicos US and EP Patent Portfolio as of September 14, 2012 – Owned IP

Tier 1

HELI #	Pat / App #	Inventor	Representative claim
HELI-001/01US Sequencing method	11/167,046	Lapidus	A method of determining a sequence of a nucleic acid template, the method comprising: (a) directly or indirectly anchoring a circular nucleic acid template to a substrate; (b) copying the template to produce an amplicon, wherein one or more detectably labeled nucleotides are incorporated into the amplicon via a polymerase-mediated reaction; (c) determining a sequence of the amplicon by optically resolving individual labeled nucleotides incorporated into the amplicon; and (d) determining at least a portion of the sequence of the template based on the sequence of the amplicon.
HELI-009/06US Sequencing method	12/400,593	Quake	A method of conducting single molecule sequencing, the method comprising: providing a device comprising a synthesis channel or a reaction chamber; introducing containing in said synthesis channel or reaction chamber reagents necessary of for a polymerase-mediated template-dependent nucleic acid synthesis reaction, comprising a plurality of templates, one or more primers, a polymerase and one or more dye-labeled nucleotides; conducting said reaction; determining a sequence of the at least one of the templates by detecting individual nucleotides incorporated into a copy of the that template immobilized on a surface; wherein one or more of the reagents is introduced in the synthesis channel or reaction chamber at a flow rate that does not cause substantial sheering shearing of nucleic acid the templates and/or dislocation of the polymerase from nucleic acid complexes.
HELI-021/02US Re-sequencing method	11/928,695	Harris	A method of increasing accuracy of nucleic acid sequencing, the method comprising the steps of: a) performing a first single molecule sequencing reaction on at least a first region of a template, thereby obtaining a nucleotide sequence of at least the first region of the template; and b) performing a second single molecule sequencing reaction on at least the first region of the template to resequence the first region of the template, thereby increasing the accuracy of nucleic acid sequencing.

HELI-025/00US Re-sequencing method	7,282,337	Harris	A method of increasing accuracy of nucleic acid sequencing, the method comprising the steps of: a) exposing a duplex comprising a template and a primer to a polymerase and one or more nucleotide comprising a detectable label under conditions sufficient for template-dependent nucleotide addition to said primer, wherein said template is individually optically resolvable; b) identifying nucleotide incorporated into said primer; c) neutralizing said detectable label or removing said detectable label from said incorporated nucleotide; d) repeating steps a)-c), thereby determining a nucleotide sequence incorporated into said primer of said duplex; e) removing the template from the primer of step d); f) adding a polynucleotide to a 3' terminus of the primer from step e) to form a template; g) exposing the template of step f) to a primer capable of hybridizing to said added polynucleotide to form template/primer duplex, and repeating steps a) through d) to sequence a portion of the template, wherein at least a portion of the sequence obtained is complementary to the nucleotide sequence of d), thereby increasing the accuracy of nucleic acid sequencing.
HELI-025/00EP Re-sequencing method	EP2007908	Harris	A method of increasing accuracy of nucleic acid sequencing, the method comprising the steps of: a) exposing a duplex comprising a template and a primer to a polymerase and one or more nucleotides comprising a detectable label under conditions sufficient for template-dependent nucleotide addition to said primer to produce an extended primer, wherein said template is individually optically resolvable and said primer is attached to a solid support; b) identifying nucleotide incorporated into said extended primer; c) repeating steps a) and b), thereby determining a nucleotide sequence; d) removing the template from the extended primer of step c); e) adding a polynucleotide to a 3' terminus of the extended primer of step d) to form a template; f) exposing the template of step e) to a primer capable of hybridizing to said added polynucleotide to form template/primer duplex, and repeating steps a) through c) to sequence a portion of the template, wherein at least a portion of the sequence obtained is complementary to the nucleotide sequence of c), thereby increasing the accuracy of nucleic acid sequencing.
HELI-030/02US 2 light source system	7,276,720	Ulmer	A system for analyzing a sample, comprising: a flow cell; a passive vacuum source for pulling a volume through the flow cell; a lighting system for illuminating the sample in the flow cell; and an optical instrument for viewing the sample in the flow cell, wherein the lighting system comprises a first light source for analyzing the sample, light from the first light source defining a first optical path that intersects the sample; and a second light source operating with the first light source for determining a position of the first optical path.

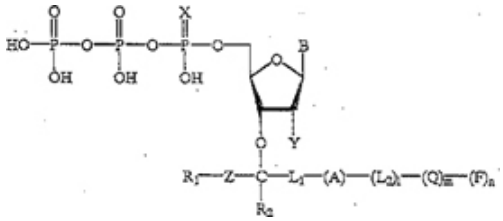
HELI-030/03US 2 light source system	7,593,109 *Deemed invalid in litigation with Illumina*	Ulmer	A system for analyzing a sample, comprising: a flow cell; a lighting system for illuminating the sample in the flow cell; and an optical instrument for viewing the sample in the flow cell, wherein the lighting system comprises: one or more analytical light sources, each light source defining an optical path that intersects the sample; and a focusing light source operating with any one of the analytical light sources to focus said optical instrument on the sample.
HELI-030/04US 2 light source system	12/563,677	Ulmer	A lighting system for analyzing a sample, the system comprising: a first light source for analyzing a sample, light from the first light source defining a first optical path that intersects the sample; and a second light source operating with the first light source for determining a position of the first optical path.
HELI-030/05US	8,094,312 *New IP in development*	Ulmer	A system for analyzing a sample, comprising: a) a flow cell comprising a sample, wherein said sample comprises: i) nucleic acid templates, ii) primer sequences, iii) fluorescently labeled nucleotides, and iv) a polymerase; b) a computer module, wherein said computer module comprises a processor; c) an optical instrument for viewing said sample in said flow cell, wherein said optical instrument comprises an image capture device configured to: i) capture an image of said sample, and ii) send said image to said computer module for analysis; and d) a lighting system for illuminating said sample in said flow cell, wherein said lighting system comprises: i) one or more analytical light sources for illuminating said fluorescently labeled nucleotides in said sample; and ii) a focusing light source configured to focus said optical instrument on said sample.
HELI-032/00US System for reducing spatial uniformity	7,397,546	Weber	A method of increasing the detected spatial uniformity of the intensity of a beam of light from a laser in a system including the laser and a light detector, the method comprising the steps of: generating a beam of light with the laser; and moving the beam of light and the light detector relative to each other, such that the detector averages the spatial intensity of the beam of light over time.
HELI-039/01US Sequencing method	11/067,102	Lapidus	A method for detecting nucleic acids indicative of a disease state in a heterogeneous sample, the method comprising the steps of: a) obtaining a heterogeneous biological sample suspected to contain a nucleic acid indicative of a disease state; b) conducting a single-molecule sequencing reaction on nucleic acid molecules in said sample, wherein said conducting comprises forming nucleic acid template / primer / polymerase complexes that are attached directly or indirectly to a substrate and for at least one of the complexes, detecting incorporation of a detectably labeled nucleotide over a plurality of cycles of incorporation, wherein the polymerase has reduced exonuclease activity and for the plurality of cycles of incorporation, a next labeled nucleotide is incorporated adjacent to a previously incorporated labeled nucleotide; c) comparing nucleic acid sequences obtained in (b) to one or more reference sequences, thereby to identify the nucleic acids in said sample that are indicative of a disease state; and d) determining the presence or absence of the nucleic acid indicative of a disease state in said sample.

HELI-040/01US Kinetic control sequencing method	7,169,560	Lapidus	A method for sequencing a nucleic acid template, the method comprising the steps of: (a) exposing a nucleic acid template hybridized to a primer to (i) a polymerase capable of catalyzing nucleotide addition to said primer, and (ii) a labeled nucleotide that is not a chain terminating nucleotide, under reaction conditions and for a time such that on average only one nucleotide is added to said primer by said polymerase to produce an extended primer incorporating said labeled nucleotide; (b) identifying said single labeled nucleotide incorporated in step (a); (c) neutralizing label in said single labeled nucleotide incorporated in step (a); (d) repeating steps (a), (b) and (c) at least once; and (e) determining a sequence of said template based upon the order of incorporation of said labeled nucleotides.
HELI-040/02US Kinetic control sequencing method	7,491,498	Lapidus	A method for sequencing a nucleic acid template, the method comprising the steps of: (a) exposing a nucleic acid template hybridized to a primer to (i) a polymerase capable of catalyzing nucleotide addition to said primer and (ii) a labeled nucleotide that is not a chain terminating nucleotide, under reaction conditions and for a period of time such that on average one to two nucleotides are added to said primer by said polymerase to produce an extended primer incorporating said labeled nucleotide; (b) washing away unincorporated nucleotides; (c) identifying said labeled nucleotides incorporated in step (a); (d) neutralizing label in any incorporated nucleotide; (e) repeating steps a, b, c, and d at least once; and (f) determining a sequence of said template based upon the order of incorporation of said labeled nucleotides, wherein said method does not utilize a blocking moiety.
HELI-040/03US Kinetic control sequencing method	7,897,345	Lapidus	A method for sequencing a nucleic acid template, the method comprising: conducting a sequencing-by-synthesis reaction on a template nucleic acid/primer duplex, wherein the reaction is controlled such that on average no more than three nucleotides are added to the primer per incorporation cycle; and determining a sequence of the template based upon order of incorporation of the nucleotides to the primer over multiple incorporation cycles, wherein the nucleotides are not chain terminating nucleotides, and wherein the template/primer duplexes are individually optically resolvable.
HELI-040/04US	13/008130 *New IP in development*	Lapidus	A method for obtaining sequence information from a target nucleic acid, comprising: a) immobilizing a plurality of different target nucleic acid/primer duplexes at discrete locations on a surface, wherein each of said target nucleic acids comprise the same adaptor sequence, and wherein each of said primers are hybridized to said adaptor sequence; b) contacting said plurality of immobilized target nucleic acid/primer duplexes with a solution comprising one or more extendible nucleotides, each nucleotide having a free 3’ hydroxyl, in the presence of a polymerase such that on average only one nucleotide is added by the polymerase to the 3' terminus of at least one of said primers in said plurality of different target nucleic acid/primer duplexes; and c) analyzing said discrete locations on said surface to detect the addition of said nucleotide, wherein addition of said nucleotide is indicative of the presence of a complementary nucleotide in the target nucleic acid, thereby obtaining sequence information from the target nucleic acid.

HELI-040/05US	13/008182 *New IP in development*	Lapidus	A method for obtaining sequence information from a target nucleic acid, comprising: a) immobilizing a plurality of different target nucleic acid/primer duplexes at discrete locations on a surface, wherein target nucleic acid portions of said duplexes each comprise the same adaptor sequence, and wherein said primers are hybridized to said adaptor sequence; b) contacting said plurality of duplexes with a solution comprising a detectably labeled nucleotide that is not a chain terminating nucleotide and an enzyme under conditions wherein the enzyme catalyses template-dependent addition to a terminus of at least one of said primers, resulting in the addition of a labeled nucleotide to said primer, wherein the label interferes with progression of the enzyme; and c) detecting the addition to the terminus of said at least one primer wherein said addition is indicative of the presence of a complementary sequence in the target nucleic acid, and provides sequence information of the target nucleic acid.
HELI-040/06US	13/008468 *New IP in development*	Lapidus	A method for sequencing a nucleic acid template, the method comprising the steps of: (a) extending the primer hybridized to a nucleic acid template in a primer/template duplex by exposing said primer to (i) a polymerase capable of catalyzing nucleotide addition to said primer, and (ii) one or more extendible nucleotides each comprising a label, wherein said polymerase extends said primer by incorporation of a nucleotide; (b) identifying said nucleotide incorporated into said primer by using total internal reflection illumination and detecting an optical signal emitted by the label from the nucleotide that has been incorporated into the primer; and (c) repeating said extending and said identifying steps to determine the nucleotide sequence of the nucleic acid molecule.

HELI-098/00US Paired-end reads	7,767,400 *Claims canceled as result of reexamination process*	Harris	A method for generating paired reads from a strand of a nucleic acid duplex, the method comprising: a) providing a nucleic acid template attached, either directly or indirectly, to a solid support; b) conducting a sequencing-by-synthesis reaction using detectably labeled nucleotides to obtain a first read of the template; c) synthesizing a spacer of a defined length; and d) conducting a sequencing-by-synthesis reaction using detectably labeled nucleotides to obtain a second read of the template, said second read being separated from the first read by the spacer.
HELI-098/01EP Paired-end reads	09706204.6	Harris	1. A method for generating and/or using paired reads, the method comprising: a) providing a nucleic acid template; b) conducting a sequencing-by-synthesis reaction to obtain a first read of the template; c) synthesizing a spacer of a defined length; d) conducting a sequencing-by-synthesis reaction to obtain a second read of the template, said second read being separated from the first read by the spacer; and e) optionally, resequencing the first and/or the second reads; and f) optionally, mapping the first and second reads onto a reference sequence.
HELI-112/01US RNA analysis method	12/811,579	Causey	A method for analyzing RNA transcripts, the method comprising sequencing a first strand cDNA via single-molecule sequencing thereby obtaining transcript information, wherein the method does not comprise a step of RNA or cDNA amplification.

Tier 2

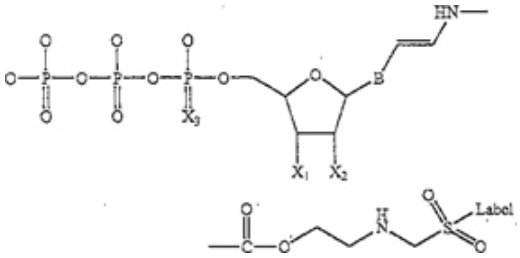
HELI #	Pat / App #	Inventor	Representative Claim
HELI-004/00US Nucleotide composition	6,255,475	Kwiatkowski	A compound of the structure I:  Or a salt thereof, wherein: B is a nucleobase, X and Z independently are oxygen or sulphur, Y is hydrogen or a protected or unprotected hydroxy, R^1 is hydrocarbyl, which optionally is substituted with a functional group selected from the group consisting of tertiary amino, nitro, cyano and halogen, R^2 is hydrogen hydrocarbyl, which optionally is substituted with a functional group selected from the group consisting of tertiary amino, nitro, cyano and halogen, A is an electron withdrawing or electron donating group capable of moderating the acetyl stability of the compound I, L^1 and L^2 are hydrocarbon linkers, which may be the same or different, L^2, when present, being either (I) connected to L^1 via the group A, or (ii) directly connected to L^1, the group A then being connected to one of linkers L^1 and L^2, F is a dye label, Q is a coupling group for F, and 1, m and n independently are 0 or 1, with the proviso that I is 1 when m is 1, and 1 is 1 and m is 1 when n is 1.
HELI-005/01US Nucleotide composition	7,767,805	Buzby	A nucleotide analog monomer, wherein the monomer comprises a plurality of detectable labels attached thereto.
HELI-007/00US Nucleotide composition	7,678,894	Siddiqi	A nucleotide analog, comprising: A nitrogenous base; A linker attached at the N4, N6, O4, or O6 of said nitrogeneous base; and A detectable label attached to said nitrogenous base via said linker, wherein said linker comprises a cleavable bond such that a native nucleotide monophosphate is regenerated upon incorporation of said analog into a nucleic acid duplex.

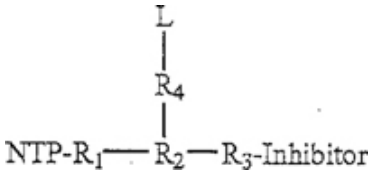
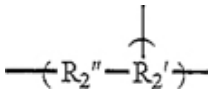
HELI-007/01US Nucleotide composition	12/705,120	Siddiqi	A nucleotide analog, the analog comprising: a nitrogenous base; a linker attached at the O4 or O6 of the nitrogenous base; and a moiety attached to the nitrogenous base via the linker. A nucleotide analog, the analog comprising: a nitrogenous base; a linker attached at the N4 or N6 of the nitrogenous base; and a moiety attached to the nitrogenous base via the linker, wherein the linker comprises a cleavable bond such that a native nucleotide monophosphate is regenerated upon incorporation of the analog into a nucleic acid duplex.
HELI-007/01EP Nucleotide composition	8755743.5	Siddiqi	A nucleotide analog, comprising: A nitrogenous base; A linker attached at the N4, N6, O4, or O6 of said nitrogeneous base; and An optically detectable label attached to said nitrogenous base via said linker.
HELI-008/00US Sequencing method	11/540,617	Kahvejian	A method for detecting a small RNA molecule in a.biological sample comprising the steps of: a) modifying a 3’ end of a small RNA molecule contained in the biological sample with an adaptor, wherein the adaptor comprises a homopolymer region and the small RNA molecule is selected from the group consisting of siRNA, stRNA, heterochromatic siRNA, tiny non-coding RNA, and miRNA; b) attaching the modified small RNA molecule to a surface wherein individual small RNA molecules are positioned on the surface such that individual small RNA molecules are individually optically resolvable; and c) analyzing the attached modified small RNA molecule, wherein at least one nucleotide is identified in at least one attached modified small RNA molecule, thereby detecting a small RNA molecule in a biological sample.
HELI-010/01US Method for stabilizing sequencing reactions	11/843,712	Buzby	A method for stabilizing a nucleic acid sequencing reaction, the method comprising the steps of: exposing a mixture comprising nucleic acid templates, a polymerase, a primer, and at least one nucleotide to single-stranded nucleic acid binding proteins positioned on a substrate, support, surface, or array; wherein said single-stranded nucleic acid binding protein binds to said template.
HELI-012/00US Sequence Data analysis method	7,424,371	Kamentsky	A method of comparing nucleic acid sequences, wherein all of the following steps are performed on a computer, the method comprising: providing a nucleic acid sequence obtained from a sample and including at least one homopolymer region; collapsing each of the homopolymer regions to a single nucleotide to form a representative sample sequence without homopolymer regions; and comparing the representative sample sequence to at least one of a plurality of collapsed reference nucleic acid sequences without homopolymer regions to determine whether the representative sample sequence matches one of the plurality of reference nucleic acid sequences; and providing results of the comparing step to a user.

HELI-016/00US Sequencing method	11/292,528	Buzby	A method of sequencing a nucleic acid, the method comprising the steps of: a) introducing a single cell into a chamber of a flow cell; b) treating said cell to cause nucleic acids to be released; c) immobilizing released nucleic acids on a surface of the flow cell; d) introducing primers and polymerases into said chamber such that they are exposed to said nucleic acids under conditions suitable for forming template/primer/polymerase systems duplexes; and e) conducting a sequencing reaction using said template/primer/polymerase systems duplexes, wherein the sequencing reaction comprises observing the systems in order to detect whether extension of the primer has occurred.
HELI-018/04US Sequencing apparatus - configured flow cell	11/928,799	Lawson	A device for use in single molecule sequencing of one or more nucleic acids in a sample, the device comprising a flow cell defining a plurality of individually isolated channels through which fluid can flow, the flow cell also defining an inlet port and an outlet port for each of the channels, at least a portion of an internal surface of at least one of the channels including a material to facilitate binding of at least one compound to the internal surface of the channel, wherein the bound compound is optically-isolated from other bound compounds in the channel and the compound is capable of hybridizing with one or more nucleic acids in the sample.
HELI-018/05US Sequencing apparatus - configured flow cell	11/997,382	Lawson	A device for use in single molecule sequencing of one or more nucleic acids in a samples, the device comprising a flow cell defining a plurality of individually isolated channels through which fluid can flow, the flow cell also defining an inlet port and an outlet port for each of the channels, at least a portion of an internal surface of at least one of the channels including a material to facilitate binding of at least one compound to the internal surface of the channel, wherein the bound compound is optically-isolated from other bound compounds in the channel and the compound is capable of binding with one or more nucleic acids in of the sample
HELI-029/00US Sequencing apparatus - liquid storage apparatus	7,753,095	Kiani	A liquid storage apparatus for use in connection with microfluidic volume analyzing equipment, comprising: a plurality of containers, each container including a top pierceable septum and a bottom pierceable septum and each container including a liquid therewithin; a lower array of needles, each of the lower needles for penetrating the bottom pierceable septum of a different one of the containers, each lower needle including a passage through which the liquid in the pierced container flows out of the container; and an upper array of needles, each of the upper needles for penetrating the top pierceable septum of a different one of the containers, each upper needle including a passage through which a gas flows into the container to occupy space in the container created by the flow of the liquid out of the container.

HELI-038/02US	13/101672	Quake	A method of increasing accuracy of nucleic acid sequencing, the method comprising the steps of: a) exposing a duplex comprising a template and a primer to a polymerase and one or more nucleotides comprising a detectable label under conditions sufficient for template-dependent nucleotide addition to said primer, the primer being hybridized to a first region of the template; b) identifying nucleotide incorporated into said primer; c) repeating steps a) and b), thereby determining a nucleotide sequence; d) removing the primer from the template; e) exposing the template to a second primer capable of hybridizing to the first region of the template to form a template/primer duplex, and repeating steps a) through c) to resequence a portion of the template, thereby increasing the accuracy of nucleic acid sequencing.
HELI-041/01US Attachment methods	7,635,562	Harris	A method for conducting a chemical reaction on a surface, the method comprising the steps of: attaching a plurality of first nucleic acid molecules via covalent linkages to reactive chemical groups on a surface; blocking the surface using a blocking solution comprising potassium phosphate; conducting a chemical reaction between said first nucleic acid molecules and second reactant molecules comprising an optically detectable label wherein said conducting step comprises exposing said nucleic acid to a primer under conditions sufficient to extend said nucleic acid by at least one base; rinsing unincorporated optically labeled nucleotides from the surface; and observing individually optically resolvable labels incorporated in the one or more first nucleic acids on the surface.
HELI-041/01EP Attachment methods	05798447.8	Harris	1. A method for conducting a chemical reaction on a surface, the method comprising the steps of: attaching a plurality of first nucleic acid molecules to reactive epoxide groups on a surface via either (i) covalent linkages or (ii) indirectly by means of a biotin-streptavidin binding pair, with biotin covalently attached to the surface ; blocking the surface using a blocking solution comprising potassium phosphate; conducting a chemical reaction using second reactant molecules comprising an optically detectable label, thereby incorporating said second reactant molecules; rinsing unincorporated optically labelled second reactant molecules from the surface; and observing individually optically resolvable labels on the surface.

HELI-041/02US Attachment methods	12/618,991	Harris	A method for conducting a chemical reaction on a surface, the method comprising the steps of: attaching first reactant molecules to a surface; blocking said surface to reduce attachment to said surface of molecules other than said first reactant molecules conducting a chemical reaction between said first reactant molecules and second reactant molecules comprising an optically-detectable label; rinsing said surface to remove unreacted second reactant molecules; and observing label associated with second reactant molecules on said surface after said rinsing step.
HELI-046/00US Sequencing methods	7,666,593	Lapidus	A method for obtaining sequence information from a nucleic acid, the method comprising the steps of: capturing target nucleic acids with a sequence-specific capture probe to produce a target/probe duplex; melting said target/probe duplex to release said target nucleic acids; annealing a primer to the target nucleic acids to produce a target/primer duplex; attaching said target/primer duplex to a surface such that at least a portion of said target/primer duplex is individually optically resolvable; introducing a polymerase and at least one nucleotide species comprising an optically-detectable label under conditions sufficient for template-dependent nucleotide addition; removing unincorporated nucleotide; and identifying nucleotide species incorporated into the extended primer, thereby obtaining sequence information from said target.
HELI-046/01US Sequencing methods	12/708,153	Lapidus	A method for obtaining sequence information from a nucleic acid, the method comprising the steps of: introducing a sample comprising at least one target nucleic acid and other non-target molecules to at least one sequence-specific capture probe to produce target/probe duplexes; separating at least one of the duplexes from the non-target molecules; exposing the separated duplexes to at least one labeled nucleotide in the presence of a polymerase capable of catalyzing addition of the nucleotide to the duplex in a template-dependent manner, wherein the probe acts as a primer; and detecting incorporation of the nucleotide into the probe portion, thereby obtaining sequence information from the nucleic acid.
HELI-047/01US Sequencing methods	11/496,063	Harris	A method for single molecule nucleic acid sequencing, the method comprising: covalently bonding to a surface a plurality of individually optically resolvable duplexes comprising a nucleic acid template and a primer hybridized thereto; conducting a template-dependent sequencing reaction mediated by a polymerase to extend primers of the plurality of said optically resolvable duplexes by at least three consecutive detectably labeled nucleotides; and detecting the addition of the labeled nucleotides to the plurality of said optically resolvable duplexes thereby to determine the sequence of at least three consecutive bases of respective said templates with an accuracy of detection at least 70% over the length of the consecutive bases and with respect to a reference sequence.

HELI-050/00US Nucleotide composition	7,476,734	Liu	A nucleotide analog having the structure:  wherein X^1 is OH or PO_4; X^2 is H or OH; B is selected from the group consisting of a purine, a pyrimidine and derivatives thereof; $CH=CHNHC(O)OC_2H_4NHCH_2SO_2$ is a linker; and X_3 is O or S.
HELI-081/00US Method of equalizing amounts of nucleic acid targets in a sample	7,790,391	Harris	A method of equalizing amounts of nucleic acid targets in a sample, the method comprising: a) contacting a plurality of probes with a sample comprising a plurality of targets; b) capturing the plurality of nucleic acid targets with the plurality of probes; c) optionally, amplifying the captured targets using the plurality of probes; d) determining an initial range of amounts of different captured nucleic acid targets; and e) repeating steps a), b), and c) if performed, at starting concentrations of the probes adjusted to reduce said initial range, thereby producing a final sample.
HELI-099/01US Surface preparation method	12/024,584	Schwartz	A method for preparing a surface for chemical analysis, the method comprising the steps of: providing a surface comprising a coating for binding an optically-labeled analyte; and depositing said analyte on said surface such that individual analyte molecules are spaced apart by a distance equal to at least the diffraction limit for said optical label.
HELI-109/00US Method With particular nucleotide composition	12/098,196	Efcavitch	A method for sequencing a nucleic acid, the method comprising the steps of: exposing a nucleic acid duplex comprising a template portion and a primer portion to a nucleotide analog comprising an inhibitor that is charged or capable of becoming charged, and a polymerase, under conditions that permit template-dependent incorporation of the analog into the primer; detecting incorporation of the analog; removing or neutralizing the inhibitor; and repeating the exposing, detecting, and removing steps at least once, thereby to determine the sequence of the template.

HELI-109/01US Nucleotide composition	12/244,698	Siddiqi	A nucleotide analog of the following Formula II:  Wherein NTP is a nucleoside or nucleotide triphosphate, or an analog thereof, capable of incorporating onto the 3' end of a polynucleotide strand hybridized to a template presenting the complement of the NTP; L is a detectable label that facilitates the identification, of the nucleotide analog; Inhibitor comprises (a) one or more multiply charged groups or groups capable of becoming multiply charged, or (b) two or more singly charged groups or two or more groups capable of becoming singly charged; R^1 comprises a cleavable bond, which upon cleavage results in de-association of NTP from both L and Inhibitor; R^2 is a tri-valent radical having the formula:  Wherein $R^{2'}$ is a tri-valent radical, and $R^{2''}$ is a bi-valent radical selected from:—$(CH_2)_x$—, — $(CH_2—O)_x$—, —$(CH_2—O)_z$—$(CH_2)_y$—, — $(CH_2)_z$ —$(CH_2—O)_y$—, and the same substituted with one or more groups selected from hydroxyl, halogen, amino, thiol, (C_1-C_6) alkyl, wherein x, y and z are each integers with x and y+z are each from 2 to 10;R^3 is a bond or group linking R^2 to the Inhibitor moiety; and R^4 is a bond or group linking R^2 to a L.

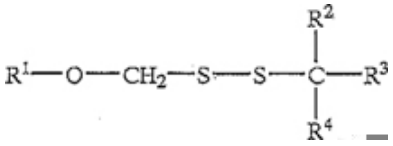
HELI-109/02US	13/283220	Efcavitch	A method for sequencing a nucleic acid, the method comprising the steps of: exposing a nucleic acid duplex comprising a template portion and a primer portion to a nucleotide analog comprising an inhibitor that is charged or capable of becoming charged, and a polymerase, under conditions that permit template-dependent incorporation of the analog into the primer; detecting incorporation of the analog; removing or neutralizing the inhibitor; and repeating the exposing, detecting, and removing steps at least once, thereby to determine the sequence of the template.
HELI-125/00US Nucleotide . composition	12/631,074	Efcavitch	A nucleotide analog comprising a detectable label attached to a nitrogenous base portion by a cleavable linker, wherein contact of the analog with at least one activating agent results in cleavage of the label and elimination of the linker, thereby producing a natural nucleotide, a 9-deaza-G, 9-deaza-A, or ψ-uridine.
HELI-127/00US Sequencing method	6,524,829	Seeger	A method for base sequencing of DNA or RNA comprising the following steps: (1) immobilizing DNA or RNA single strands on a planar surface; (2) focusing a laser beam on a single, immobilized single strand; (3) producing a DNA or RNA complementaiy strand of said immobilized, focused single strand by adding a solution containing (i) a mixture of nucleotides of the bases adenine, cytosine, guanine and thymine for producing a DNA complementary strand or a mixture of nucleotides of the bases adenine, cytosine, guanine and uracil for producing a RNA complementary strand and (ii) a polymerase, wherein at least two of the four nucleotides of the bases adenine, cytosine, guanine, and thymine, or at least two of the four nucleotides of the bases adenine, cytosine, guanine, or uracil are partially or fully luminescence-tagged, said step (3) further comprising (a) detecting each insertion of a luminescence-tagged nucleotide into the complementary strand with a single-molecule detector, and (b) deleting the luminescence signal of the luminescence-tagged nucleotide after detection and prior to insertion of the respective next luminescence-tagged nucleotide, thereby base sequencing DNA or RNA.

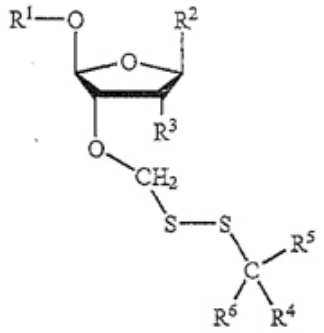
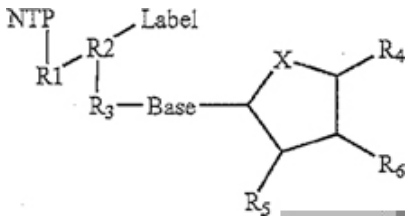
HELI-127/00EP	EP1117831	Seeger	Process for base sequencing of DNA or RNA, comprising the steps:
Sequencing method			(1) immobilising DNA or RNA single strands on a surface in a surface density of $\leq$ 1 molecule/μm^2 (2) focussing a laser beam on a single, immobilised single strand; (3) producing a DNA or RNA complementary strand of the immobilised, focussed single strand by adding a solution containing (i) a mixture of nucleotides of the bases adenine, cytosine, guanine and thymine to produce a DNA complementary strand or a mixture of nucleotides of the bases adenine, cytosine, guanine and uracil to produce an RNA complementary strand and (ii) a polymerase, 3a) wherein at least two of the four nucleotides of the bases adenine, cytosine, guanine and thymine or at least two of the four nucleotides of the bases adenine, cytosine, guanine and uracil are luminescence-labelled completely or partially differently, 3b) each insertion of a luminescence-labelled nucleotide into the complementary strand is detected using a single-molecule detector, and 3c) before the insertion of the particular next luminescence-labelled nucleotide, the luminescence signal of the preceding luminescence-labelled nucleotide is quenched.

HELI-129/00US RNA Sequencing method	61/251,966	Ozsolak	A method for analyzing cellular nucleic acid, the method comprising the steps of: capturing RNA from a lysed cell onto a substrate; producing a cDNA/RNA duplex; removing the RNA from the cDNA/RNA duplex; priming the cDNA to produce a primer/cDNA duplex; exposing the primer/cDNA duplex to at least one detectably labeled nucleotide in the presence of a polymerase capable of catalyzing addition of the nucleotide to the primer/cDNA duplex; detecting incorporation of the nucleotide into the primer portion; and repeating the exposing and detecting steps at least once.
HELI-129/01US	12/904683	Ozsolak	A method for analyzing cellular nucleic acid, the method comprising the steps of: capturing RNA from a lysed cell onto a substrate; producing a cDNA/RNA duplex; removing the RNA from the cDNA/RNA duplex; priming the cDNA to produce a primer/cDNA duplex; exposing the primer/cDNA duplex to at least one detectably labeled nucleotide in the presence of a polymerase capable of catalyzing addition of the nucleotide to the primer/cDNA duplex; detecting incorporation of the nucleotide into the primer portion; and repeating the exposing and detecting steps at least once.
HELI-1002/02US	13/125932	Joseph	A method for increasing recovery of an analyte in a sample, comprising providing a mechanism for sample recircularization in a flow cell device using a reactive vessel, such that the analyte in the sample has two or more exposures to the reactive vessel.
HELI-1004/02US	13/127669	Steinmann	A method for sequencing a nucleic acid, the method comprising: contacting a nucleic acid duplex comprising a primer nucleic acid hybridized to a template nucleic acid with a polymerase enzyme in the presence of a first detectably labeled nucleotide under conditions that permit the polymerase to add nucleotides to the primer in a template-dependent manner, wherein a unique oligonucleotide sequence is attached to the template nucleic acid so that the template nucleic acid may be differentiated from other template nucleic acid molecules; detecting a signal from the incorporated labeled nucleotide; and sequentially repeating the contacting and detecting steps at least once, wherein sequential detection of incorporated labeled nucleotide determines the sequence of the nucleic acid.
HELI-1005/01US	12/616883	Lipson	A method for reducing over-representation of nucleic acid fragment ends, comprising: a. blocking the 3'-OH of a nucleic acid molecule; b. fragmenting the nucleic acid molecule to produce one or more unblocked 3'-OH; c. modifying the one or more unblocked 3'-OH; d. anchoring the modified nucleic acid fragments to a solid support; and e. determining at least a portion of the sequence of the nucleic acid molecule.

HELI-1006/01US	12/618251	Joseph	A method for sample performance analysis which comprises: a. attaching an enzyme directly or indirectly to a nucleic acid; b. anchoring nucleic acid to a surface; c. adding a substrate; d. determining the amount of substrate enzymatically converted to detectable product; and e. comparing the product produced compared to a nucleic acid standard, thereby calibrating the nucleic acid performance relative to a standard.
HELI-1007/01US	12/625115	Lipson	A method for selective priming during reverse transcription of RNA to cDNA, comprising contacting an RNA sample with one or more primer oligonucleotides, wherein said primer oligonucleotides are comprised of one or more oligonucleotide sequences which hybridize specifically to mRNA.
HELI-1009/01US	12/629174	Buzby	A method comprising exposing a functional substrate to (i) a biological mixture including at least one optically detectable moiety, and (ii) a competitor effective to reduce non-specific adsorption of the detectable moiety to the functional substrate.

Tier 3

HELI#	Pat / App#	Inventor	Representative Claim
HELI-003/00US Nucleotide composition	6,309,836	Kwiatkowski	A method for sequencing a nucleic acid comprising the steps of: a) contacting a target nucleic acid with a primer under conditions wherein said primer anneals to said target nucleic acid in a sequence specific manner and wherein at least a portion of said primer is complementary to a portion of said target nucleic acid; b) incorporating a hydrocarbyldithiomethyl-modified nucleotide into said primer; and c) detecting incorporation of said hydrocarbyldithiomethyl- modified nucleotide, wherein said hydrocarbyldithiomethyl-modified nucleotide is complementary to said target nucleic acid at said hydrocarbyldithiomethyl-modified nucleotide's site of incorporation thereby identifying the sequence of one nucleobase of said target nucleic acid.
HELI-003/00EP Nucleotide composition	EP1218391	Kwiatkowski	A dithiomethyl-_modified compound comprising the Formula: Rl-O-_CH2-S-_S-_R2 or a salt thereof, wherein R1 is chosen from modified or unmodified amino acids, peptides, proteins, carbohydrates, sterols, steroids, ribonucleosides, ribonucleotides, base- and/or sugar-modified ribonucleosides, base- and/or sugar-modified ribonucleotides, deoxyribonucleosides, deoxyribonucleotides, base- and/or sugar-modified deoxyribonucleosides, and base- and/or sugar-modified deoxyribonucleotides; and R2 is chosen from saturated and unsaturated hydrocarbons, straight- and branched-chain aliphatic hydrocarbons, cyclic hydrocarbons, aromatic hydrocarbons, heterocyclic hydrocarbons, heteroaromatic hydrocarbons, and substituted hydrocarbons such as hydrocarbons containing heteroatoms and/or other functional modifying groups.
HELI-003/01US Nucleotide composition	6,639,088	Kwiatkowski	A hydrocarbyldithiomethyl-modified compound comprising the formula:  or a salt thereof, wherein R^1 is an organic molecule; R^1, R^2, and R^4 are together or separately H, hydrocarbyl, or a residue of a solid support; and said R^2 comprises a fluorescent labeling group.

HELI-003/02US Nucleotide composition	7,279,563	Kwiatkowski	A hydrocarbyldithiomethyl-modified compound comprising the formula:  or a salt thereof, wherein R^1 is H, a protecting group, phosphate, diphosphate, triphosphate, or residue of a nucleic acid; R^2 is a nucleobase; R^3 is H, OH, or a protected form of OH; and R^4, R^5 and R^6 are together or separately H, hydrocarbyl, or a residue of a solid support.
HELI-006/02US Nucleotide composition	11/929,084	Siddiqi	A nucleoside triphosphate analog comprising a chemical structure within the following formula: 

HELI-043/00US Method for inhibiting nucleotide misincorporation	7,482,120	Buzby	A method for inhibiting nucleotide misincorporation in a nucleic acid synthesis reaction, the method comprising conducting a polymerization reaction on a nucleic acid duplex comprising a template and a primer in the presence of a nucleic acid polymerase, a first detectably labeled nucleotide corresponding to a first nucleotide species complementary to the position opposite the incorporation site at the 3' terminus of the primer, a second nucleotide of a different species, and at least one nucleotide derivative, each of the nucleotide derivatives corresponding to a different nucleotide species than the first nucleotide species, wherein each nucleotide derivative comprises a modification that inhibits formation of a phosphodiester bond between the nucleotide derivative and a free 3' hydroxyl on a primer nucleotide.

Exhibit 10.3

SUB-LICENSE AGREEMENT

between

HELICOS BIOSCIENCES CORPORATION, c/o Verdolino & Lowey, P.C., 124 Washington Street, Foxborough, Massachusetts 02035

(hereinafter referred to as "HELICOS")

and

SEQLL, LLC, 866 East 5th Street, Unit 2, Boston, MA 02127, USA

(hereinafter referred to as "SUBLICENSEE")

PREAMBLE

HELICOS is debtor in possession in the case under Chapter 11 of the United States Bankruptcy Code entitled In re Helicos Biosciences Corporation, Case No. 12-19091 — FJB (the "Chapter 11 Case"), pending in the United States Bankruptcy Court for the District of Massachusetts, Eastern Division (the "Court").

HELICOS holds as an asset a certain License (as amended, the "License") from Arizona Science and Technology Enterprises LLC, d/b/a Arizona Technology Enterprises ("AZTE") of Scottsdale, AZ, of the patents and patent applications which are listed, to the best of Helicos' knowledge without input from its intellectual property counsel, in Appendix A, as well as any continuation, continuation-in-part, division, extension, reissue, re-examination or substitution thereof and any patent issuing on any of the foregoing, and any and all foreign patents and patent applications claiming priority thereto (collectively, the "Licensed Patents"),

As part of the Chapter 11 Case, HELICOS and AZTE have entered into, and will submit for approval to the Court a certain "Stipulation of Settlement with Arizona Technology Enterprises", whereby, *inter alia*, subject to receipt of the payment required thereunder, AZTE consents to this Sub-License Agreement and agreed that after the License is terminated pursuant to such Stipulation, AZTE will honor the terms of this Sub-License Agreement.

On March 5, 2013, Helicos filed a Motion to (i) Sell Certain Assets Free and Clear (ii) Assign Certain Obligations and (iii) Grant Non-Exclusive License (the "Sale Motion") [Docket No. 96] in connection with the Helicos' Chapter 11 Case, seeking authority (a) to sell certain equipment, supplies and related assets free and clear of liens, claims and other interests, (b) to assign certain obligations and the right to any revenue associated therewith, and (c) to grant a non-exclusive license to certain intellectual property owned by Helicos.

On March 14, 2013, the United States Bankruptcy Court for the District of Massachusetts entered an Order allowing the Sale Motion [Docket No. 112] (the "Sale Order").

HELICOS desires to sub-license the Licensed Patents to SUBLICENSEE, and SUBLICENSEE wishes to obtain such a sub-license solely for the purpose of allowing the SUBLICENSEEE to engage in contract gene sequencing, supporting HELICOS' customer base and potentially making improvements to the HELICOS' existing technology, all on the terms and conditions below.

NOW THEREFORE, in consideration of the mutual obligations set forth in the terms and conditions below, and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

1. Definitions

In this Sub-License Agreement, unless the context otherwise requires:

1.1 "Affiliate" shall mean any corporation, partnership or other business organization that directly or indirectly through one or more intermediaries controls, or is under common control with, or is controlled by, Licensee. "Control" shall mean (a) in the case of corporate entities, direct or indirect ownership of at least fifty percent (50%) of the stock or participating shares entitled to vote for the election of directors; and (b) in the case of non-corporate entities, direct or indirect ownership of at least fifty percent (50%) of the equity interest or the power to direct the management and policies of such entity.

1.2 "Field" shall mean nucleic acid sequencing-by-synthesis utilizing detection of optically-labelled nucleotides used solely for the purpose of allowing the SUBLICENSEEE to engage in contract gene sequencing, supporting HELICOS' customer base and potentially making improvements to the HELICOS' existing technology. SUBLICENSEE acknowledges that although HELICOS received rights to an "Expanded Field" of use in the First Amendment to License Agreement with AZTE, dated on or about August 23, 2011, SUBLICENSEE is not entitled to use the Licensed Patents in the Expanded Field, but only in the Field.

1.3 "Licensed Process" shall mean any process that would, in the absence of the licenses granted herein, infringe one or more Valid and Enforceable Claim of any of the Licensed Patents.

1.4 "Licensed Product" shall mean any product that would, in the absence of the licenses granted herein, infringe one or more Valid and Enforceable Claim of any of the Licensed Patents, or, that when used, would constitute practice of a Licensed Process.

1.5 "Territory" shall mean the world.

1.6 "Valid and Enforceable Claim" shall mean a claim of an issued patent in the Licensed Patents that has not been held to be invalid or unenforceable by a court or other governmental agency of competent jurisdiction over such issued patent in a proceeding from which no appeal can be or has been taken.

1.7 "Patent Applications" shall mean the patent applications listed, to the best of Helicos' knowledge without input from its intellectual property counsel, in Appendix A.

2. Grant

2.1 HELICOS hereby grants to SUBLICENSEE and SUBLICENSEE hereby accepts a non-exclusive sub-license (the "Sub-License") under the Licensed Patents to make, have made, use, have used, offer for sale, have offered for sale, sell, have sold, import and have imported, lease or have leased Licensed Products, and practice or have practiced Licensed Processes in the Territory for the life of the Licensed Patents, in the Field only. SUBLICENSEE shall not have the right to sub-license the Licensed Patents to any third party or to make any assignment of this Sub-License, and any such attempted sub-license or assignment shall constitute a material breach of this Sub-License, *provided, however,* that SUBLICENSEE shall be deemed to sub-license (with permission) to each and every entity that is an SUBLICENSEE Affiliate, but solely for the period when such entity has such status.

3. Taxes

3.1 Taxes, if any, levied on HELICOS by a government of any country on payments made by SUBLICENSEE to HELICOS hereunder shall be borne by HELICOS. There shall be no deduction from amounts payable under this Sub-License Agreement for any amount of withholding tax owed by SUBLICENSEE for which SUBLICENSEE is entitled to a rebate.

4. Enforcement of Licensed Patents

4.1 AZTE shall have the sole and exclusive right, but not the obligation, to enforce its rights and those of SUBLICENSEE in the Licensed Patents against any third party infringement.

5. No Obligations of HELICOS or AZTE

5.1 Notwithstanding anything to the contrary in this Sub-License Agreement, neither HELICOS nor AZTE shall have any obligation whatsoever under this Sub-License Agreement, including to prosecute any patent application or to maintain any Licensed Patent by payment of fees to any governmental entity.

6. Term and Termination

6.1 In the event that SUBLICENSEE materially defaults in the performance of its obligations hereunder, HELICOS (before the License Termination) or AZTE (after the License Termination) shall have the right to give SUBLICENSEE written notice requiring it to cure such default. If the default is not remedied within thirty (30) days after receipt of such notice, the notifying party shall be entitled to terminate this Sub-License Agreement by giving notice to take effect immediately.

6.2 This Sub-License Agreement shall automatically terminate if SUBLICENSEE dissolves or ceases to conduct its business, if SUBLICENSEE files a petition in bankruptcy or insolvency or applies for the appointment of receiver or trustee concerning its assets, or if SUBLICENSEE is served with an involuntary petition against it, filed in any insolvency proceeding, and such petition is not dismissed within sixty (60) days after its filing.

6.3 The parties' respective obligations under Section 3, 4, 6, 7, 8 and 9 shall survive termination of this Agreement, whether by expiration or otherwise for any reason.

7. Representations and Warranties

7.1 HELICOS represents and warrants to SUBLICENSEE that:

a) Pursuant to the Sale Order, it has the right to enter into this Sub-License of the Licensed Patents;

7.2 SUBLICENSEE represents and warrants to HELICOS that:

a) SUBLICENSEE is a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts, and has all requisite corporate power and authority to execute, deliver, and perform its obligations under this Sub-License Agreement and to consummate the transactions contemplated thereby; and

b) this Sub-License Agreement does not and will not conflict with, contravene, or constitute a default under or violation of any provision of applicable law binding upon SUBLICENSEE, or any agreement, commitment, instrument or other arrangement to which SUBLICENSEE is a party or by which it is bound.

7.3 HELICOS PROVIDES THE SUB-LICENSE OF THE LICENSED PATENTS TO SUBLICENSEE ON AN "AS IS" BASIS ONLY. WITHOUT LIMITING THE FOREGOING, HELICOS DOES NOT MAKE ANY OTHER REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, REGARDING THE LICENSED PATENTS OR THE USE THEREOF, AND HELICOS SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY SUBJECT MATTER HEREUNDER OR USE THEREOF, AND HELICOS DOES NOT ASSUME ANY RESPONSIBILITY WHATSOEVER WITH RESPECT TO THE DESIGN, DEVELOPMENT, MANUFACTURE, USE, SALE OR OTHER DISPOSITION BY SUBLICENSEE or SUBLICENSEE AFFILIATE OF LICENSED PRODUCTS. SUBLICENSEE has not relied on any oral or written statements or any other materials provided by HELICOS or AZTE in connection with this Sub-License Agreement and SUBLICENSEE represents that the decision to enter into this Sub-License Agreement is based solely on SUBLICENSEE's independent due diligence.

7.4 Neither HELICOS nor AZTE shall have any liability or obligation in respect of any infringement of any patent or other right of third parties due to SUBLICENSEE's activities under the Sub-License or otherwise. **In no event shall HELICOS or AZTE be responsible or liable for any direct, indirect, special, incidental, or consequential damages or lost profits or other economic loss or damage with respect to Licensed Products regardless of the legal theory. The limitations on liability contained in this Article apply even though HELICOS or AZTE may have been advised of the possibility of such damage.**

7.5 SUBLICENSEE hereby agrees to indemnify, defend, save and hold HELICOS and AZTE, their members, managers, directors, officers, employees, and agents, ASU, the ASU Foundation, and their respective regents, directors, officers, employees and agents, and the State of Arizona, harmless from and against any third party claims, demands, or actions alleging or seeking recovery or other relief for any liability, cost, fee, expense, loss, or damage arising or resulting from the use of Licensed Patents or Licensed Products by SUBLICENSEE, its customers or end-users, however the same may arise. SUBLICENSEE shall not, and shall require that its Affiliates not, make any statements, representations or warranties whatsoever to any person or entity, or accept any liabilities or responsibilities whatsoever from any person or entity that, as to AZTE or ASU, are inconsistent with any disclaimer or limitation included in this Section 7.

7.6 SUBLICENSEE shall in the performance of any investigation, testing, and solicitation of government approvals pertaining to the use of the Licensed Patents, exercise at least the same degree of diligence which any reasonable and prudent manufacturer exercises in the investigation, testing, and solicitation of government approvals for an invention of similar class or utility invented by employees of and owned by the manufacturer.

8. Miscellaneous

8.1 This Sub-License Agreement and the Sub-License granted herein shall not be assigned by SUBLICENSEE, and SUBLICENSEE shall not delegate its obligations hereunder, to any party without the prior written consent of HELICOS and AZTE, which consent may be withheld in the sole business judgment of HELICOS and/or AZTE.

8.2 This Sub-License Agreement constitutes the entire agreement between the parties and supersedes all previous agreements, understandings and arrangements, whether written or oral, with respect to the subject matter hereof.

8.3 No amendments, changes, modifications or alterations of this Sub-License Agreement shall be binding upon either party unless in writing and signed by both parties.

8.4 Neither party will be responsible for delays resulting from causes beyond the reasonable control of such party, including without limitation fire, explosion, flood, war, strike or riot, provided that the nonperforming party uses commercially reasonable efforts to remove such causes of non-performance and continues performance under this Sub-License Agreement with reasonable dispatch whenever such causes are removed.

8.5 All titles and captions in this Sub-License Agreement are for convenience only and shall not be interpreted as having any substantive meaning.

8.6 In the event that a court of competent jurisdiction holds that a particular provision or requirement of this Sub-License Agreement is in violation of any law, such provision or requirement shall not be enforced but replaced by a valid and enforceable provision or requirement which will achieve as far as possible the business intentions of the parties. All other provisions and requirements of this Sub-License Agreement, however, shall remain in full force, and effect.

8.7 Neither party will issue any press release or other public announcements relating to this Sub-License Agreement without obtaining the other party's written approval (other than as required by law) which approval will not be unreasonably withheld.

8.8 This Sub-License Agreement and the grant of the license described herein are subject to the terms of the Bayh-Dole Act, 35 U.S.C. 200-212, and its applicable regulations and the rules of the Arizona Board of Regents.

8.9 AZTE is made a third party beneficiary of this Sub-License Agreement. Notwithstanding anything to the contrary contained in this Sub-License Agreement, (a) AZTE shall have no executory obligations whatsoever to SUBLICENSEE, and (b) following the License Termination (i) this Sub-License Agreement shall remain in full force and effect, (ii) HELICOS will have no further rights or obligations under the Sub-License Agreement, (iii) AZTE shall have the rights but not any obligations of HELICOS under the Sub-License Agreement, and (iv) to the extent that the consent of HELICOS is required, the consent of AZTE shall instead be required.

9. Confidentiality

9.1 SUBLICENSEE and HELICOS agree that the content of this Sub-License Agreement as well as any financial or other information that either party may learn from the other during the term of this Sub-License Agreement shall be treated confidentially by both SUBLICENSEE and HELICOS.

9.2 In the event of scientific discussions between HELICOS, AZTE, ASU and its employees and SUBLICENSEE, or any of them, whether orally or in writing, the parties mutually agree to maintain in confidence any Confidential Information exchanged between them. For purposes of this Section, Confidential Information shall be any disclosure of proprietary information by one entity to the other that is marked or, in the case of oral disclosure is confirmed in writing within thirty (30) days of such disclosure, as being confidential information of the entity. The parties mutually agree not to disclose such Confidential Information to any third party. Confidential Information under this Section shall not include any information that is or becomes publicly available without breach of this Section or information that is known to the party receiving it prior to disclosure by the disclosing entity.

9.3 Notwithstanding the provisions of Section 9, ASU and HELICOS and its Affiliates reserve the right to publish (and teach) information of scientific importance; provided, however, that (a) the know-how or the material part of it shall, prior to such publication, have been made the subject of a United States patent application, or (b) the other party shall have given its prior written agreement to the publication without filing a patent application. Each party shall furnish the other party with a copy of every relevant publication by the first party pursuant to this Article, prior to publication of the information. The other party receiving the intended publication shall have thirty (30) days from receipt of the intended publication to indicate to the party intending publication any reasonable revisions or deletions it deems necessary to protect its proprietary rights or to avoid publication of any information which may prejudice or jeopardize potential patent rights, and the party intending publication agrees to make revisions or deletions. Submission of the intended publication may be delayed for an additional forty-five (45) days following the initial thirty (30) day period for the purposes of preparing related patent applications if in the reasonable judgment of one of the parties these patent applications are considered necessary and disclosure would jeopardize potential protection.

10. Notices

Any notice required or permitted to be given under this Sub-License Agreement shall be considered properly given if sent by mail, facsimile, or courier delivery to the respective address of each party as follows:

If to HELICOS:	HELICOS BIOSCIENCES CORPORATION c/o Murtha Cullina LLP 99 High Street Boston, MA 02110, U.S.A. Attn: Daniel C. Cohn Fax: 617-210-7058
If to AZTE:	Arizona Technology Enterprises The Brickyard, Suite 601 699 S. Mill Avenue Tempe, AZ 85281 Attn: Andrew Wooten Fax: 480-965-0421
If to SUBLICENSEE:	SEQLL, LLC 866 East 5th Street Unit 2 Boston, MA 02127 USA Attn: Daniel R. Jones Fax: _____

11. Governing Law and Jurisdiction

Any dispute under this Sub-License Agreement shall be adjudicated under the laws of the Commonwealth of Massachusetts without regard to its choice of law principles. Both parties to this Sub-License Agreement agree to submit to the exclusive jurisdiction of the Federal District Court in Massachusetts and further agree that such court has personal jurisdiction over the parties.

HELICOS BIOSCIENCES CORP.		SEQLL, LLC	
By:	/s/ Jeffrey R. Moore	By:	/s/ Daniel R. Jones
Name:	Jeffrey R. Moore	Name:	Daniel R. Jones
Title:	SVP & CFO	Title:	
Date:	3/15/2013	Date:	3/15/13

Appendix A

HELI #	Pat / App #	Inventor	Representative claim
HEL1-035/02US Sequencing method	6,780,591	Williams	A method of DNA sequencing comprising the steps of: (a) providing a template system comprising at least one nucleic acid molecule of unknown sequence hybridized to a primer oligonucleotide in the presence of a DNA polymerase with reduce exonuclease activity; (b) contacting the template system with a single type of deoxyribonucleotide under conditions which allow extension of the primer by incorporation of at least one deoxyribonucleotide having a fluorescent moiety to the 3' end of the primer to form an extended primer; (c) detecting whether extension of the primer has occurred by detecting a fluorescent signal emitted by the fluorescent moiety, and further comprising.destroying the fluorescent signal without removal of the fluorescent moiety; (d) detecting the number of deoxyribonucleotides incorporated into the primer; (e) removing unincorporated deoxyribonucleotide; and (f) repeating steps (a) through (e) to determine the nucleotide sequence of the nucleic acid molecule.
HELI-035/03US Sequencing method	7,037,687	Williams	A method of nucleic acid sequencing, the method comprising the steps of: (a) providing a nucleic acid template/primer system comprising individual template/primer duplexes immobilized on a surface; (b) exposing said individual template/primer duplexes to a polymerase and one or more type of nucleotide comprising an optically-detectable label, wherein said optically-detectable label is not attached to the 3' position of the sugar moiety of said nucleotide; (c) removing nucleotide that is not incorporated into a primer; (d) detecting incorporated nucleotide by the presence of said label; (e) removing said label from said incorporated nucleotide; (f) repeating steps (b) through (e) at least once with a different type of nucleotide comprising an optically-detectable label for incorporation into said primer; and (g) determining a nucleic acid sequence based upon said incorporated nucleotides.
HELl-035/04US Sequencing method	7,645,596	Williams	A method for sequencing nucleic acid, the method comprising the steps of: hybridizing nucleic acid to a complementary nucleic acid sequence to form one or more duplexes; adding at least one nucleotide comprising a detectable label to said duplex, wherein said nucleotide is not a dideoxy nucleotide and wherein said nucleotide has a free 3' hydroxyl when added to said duplex; identifying said nucleotide comprising said detectable label; and repeating said adding and identifying steps, thereby to determine the sequence of said nucleic acid.

HELI-035/05US Sequencing method	7,875,440	Williams	A method of DNA sequencing comprising the steps of: (a) providing a template system comprising at least one nucleic acid molecule of unknown sequence hybridized to a primer oligonucleotide in the presence of a DNA polymerase with reduced exonuclease activity; (b) contacting the template system with a single type of deoxyribonucleotide under conditions which allow extension of the primer by incorporation of at least one deoxyribonucleotide to the 3' end of the primer to form an extended primer; (c) observing the template system in order to detect whether extension of the primer has occurred; (d) detecting the number of deoxyribonucleotides incorporated into the primer; (e) removing unincorporated deoxyribonucleotide; and (f) repeating steps (a) through (e) to determine the nucleotide sequence of the nucleic acid molecule.
HELI-035/07US	12/969872	Williams	A method of analyzing a nucleic acid molecule, the method comprising: (a) providing a template/primer duplex; (b) contacting the duplex with a single type of deoxyribonucleotide in the presence of a polymerase under conditions that allow extension of the primer by incorporation of at least one deoxyribonucleotide to the 3' end of the primer, wherein the contacting occurs in a reaction cell; and (c) non-optically detecting in the reaction cell whether extension of the primer has occurred.
HELI-035/08US	8,263,364	Williams	A method of nucleic acid sequencing, the method comprising the steps of: (a) on a solid phase, catalyzing incorporation of a nucleotide to a primer/template system with a polymerase by exposing said primer/template system to said polymerase and one or more types of nucleotides comprising an optically-detectable label, wherein said optically-detectable label is not attached to the 3' hydroxyl of the sugar moiety of said nucleotide; (b) detecting incorporated nucleotide by the presence of said label; (c) removing said label from said incorporated nucleotide; (d) permitting steps (a) through (c) to occur multiple times so as to determine a nucleic acid sequence based upon said incorporated nucleotides.
HEL1-035/09US	8,263,365	Williams	A method of DNA sequencing comprising: providing a) a DNA template system comprising a nucleic acid molecule hybridized to a universal primer oligonucleotide and a DNA polymerase enzyme, and b) at least one deoxyribonucleotide comprising a detectable fluorescent label that is not attached to the 3' hydroxyl; extending under conditions wherein said DNA polymerase extends said primer oligonucleotide by at least one nucleotide base to form an extended primer; identifying said at least one nucleotide base on said extended primer by observing the DNA template system; and repeating said extending and identifying steps at least once to determine the nucleotide sequence of the nucleic acid molecule.

HELI-035/10US	13/099718	Williams	An apparatus for DNA sequencing comprising: (a) at least one reaction chamber including a DNA primer/template system which produces a detectable signal when a DNA polymerase enzyme incorporates a deoxyribonucleotide monophosphate onto the 3’ end of the primer strand; (b) a system for introducing into, and evacuating from, said reaction chamber at least one reagent selected from the group consisting of: buffers, electrolytes, DNA template, DNA primer, deoxyribonucleotides, and polymerase enzymes; and (c) a system for converting said detectable signal into an electrical signal based on an electrical potential generated, from said detectable signal.
HELI-035/11US	8,216,514	Williams	An apparatus for DNA sequencing using chemically-modified dNTPs comprising: (a) at least one reaction chamber comprising a surface, wherein said reaction chamber comprises: i) a primer/template system comprising a template sequence hybridized to a universal primer, wherein said primer/template system is tethered to said surface; ii) an excess of chemically modified dNTPs, wherein said chemically modified dNTPs each comprise: A) a dNTP, b) a fluorescent label, and c) a chemically-cleavable linker between said dNTP and said fluorescent label; and iii) a polymerase mutant, wherein said polymerase mutant is capable of more efficiently incorporating said chemically modified dNTPs into said primer-template system than the corresponding wild-type enzyme; (b) a component for introducing into, and evacuating from, said reaction chamber at least one reagent selected from the group consisting of: buffers, electrolytes, DNA template, DNA primer, deoxyribonucleotides, and polymerase enzymes; (c) a component for illuminating said chemically modified dNTPs with optical radiation at a wavelength absorbed by said fluorescent label, and (d) a device capable of sensing fluorescence from said chemically modified dNTPs.
HELI-035/12US	13/408458	Williams	A method of synchronizing enzyme-catalyzed extension of DNA primers during reactive sequencing, comprising the steps of: (a) providing one or more DNA template systems, each system comprising at least two nucleic acid molecules of identical but unknown sequence hybridized to identical primer oligonucleotides; (b) contacting the DNA template system with a single type of deoxyribonucleoside triphosphate in the presence of an exonuclease deficient DNA polymerase enzyme under conditions that allow extension of the primers at the 3’ ends by incorporation of at least one deoxyribonucleoside monophosphate, which is complementary to the adjacent DNA template base, to form extended primers; (c) determining the number of deoxyribonucleoside monophosphates incorporated at the 3’ ends of each of the extended primers by measuring the amplitude of an electrical signal; (d) identifying the type of the at least one incorporated deoxyribonucleoside monophosphate on each extended primer; (e) removing unincorporated deoxyribonucleoside triphosphate; (f) repeating steps (a) through (e) with each of the remaining three single types of deoxyribonucleoside triphosphates not used in step (b); and (g) repeating steps (a) through (f) thereby sequencing the DNA through synchronous extension of DNA primers.

Exhibit 10.4

SEQLL INC.
AMENDED AND RESTATED
INVESTORS' RIGHTS AGREEMENT

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Schedule A - Schedule of Investors

AMENDED AND RESTATED

INVESTORS' RIGHTS AGREEMENT

THIS AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT (this "**Agreement**"), is made as of the 19th day of February, 2016, by and among SeqLL Inc., a Delaware corporation (the "**Company**"), and each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor**," and any Additional Purchaser (as defined in the Purchase Agreement) that becomes a party to this Agreement in accordance with Section 6.9 hereof.

RECITALS

WHEREAS, certain of the Investors (the "**Existing Investors**") hold shares of the Company's Series A-1 Preferred Stock and possess registration rights, information rights, rights of first offer, and other rights pursuant to an Investors' Rights Agreement dated as of May 30, 2014 between the Company and such Investors (the "**Prior Agreement**"); and

WHEREAS, the Existing Investors are holders of a majority of the Registrable Securities of the Company (as defined in the Prior Agreement), and desire to amend and restate the Prior Agreement in its entirety and to accept the rights created pursuant to this Agreement in lieu of the rights granted to them under the Prior Agreement; and

WHEREAS, certain of the Investors are parties to that certain Series A-2 Convertible Preferred Stock Purchase Agreement of even date herewith between the Company and such Investors (the "**Purchase Agreement**"), under which the Company's and such Investors' obligations are conditioned upon the execution and delivery of this Agreement by such Investors and the Company.

NOW, THEREFORE, the parties hereby agree as follows:

1. Definitions. For purposes of this Agreement:

1.1. "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

1.2. "**Common Stock**" means shares of the Company's common stock, par value $0.00001 per share.

1.3. "**Competitor**" means a Person engaged, directly or indirectly (including through any partnership, limited liability company, corporation, joint venture or similar arrangement (whether now existing or formed hereafter)), in the provision of genomic transcriptomic sequencing and analysis services and sales of equipment relating to the same, but shall not include any financial investment firm or collective investment vehicle that, together with its Affiliates, holds less than twenty percent (20)% of the outstanding equity of any Competitor and does not, nor do any of its Affiliates, have a right to designate any members of the Board of Directors of any Competitor.

1.4. "**Damages**" means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.5. "**Derivative Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly), Common Stock, including options and warrants.

1.6. "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.7. "**Excluded Registration**" means (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

1.8. "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.9. "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.10. "**GAAP**" means generally accepted accounting principles in the United States.

1.11. "**Holder**" means any holder of Registrable Securities who is a party to this Agreement.

1.12. "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including, adoptive relationships, of a natural person referred to herein.

1.13. "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.14. "**IPO**" means the Company's first underwritten public offering of its Common Stock under the Securities Act.

1.15. "**Key Employee**" means any executive-level employee (including, division director and vice president-level positions) as well as any employee who, either alone or in concert with others, develops, invents, programs, or designs any Company Intellectual Property (as defined in the Purchase Agreement).

1.16. "**Major Investor**" means any Investor that, individually or together with such Investor's Affiliates, holds at least 390,625 shares of Registrable Securities (as adjusted for any stock split, stock dividend, combination, or other recapitalization or reclassification effected after the date hereof).

1.17. "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.18. "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.19. "**Preferred Stock**" means shares of the Company's Series A-1 Preferred Stock, and Series A-2 Preferred Stock.

1.20. "**Registrable Securities**" means (i) the Common Stock issuable or issued upon conversion of the Preferred Stock; (ii) any Common Stock, or any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company, acquired by the Investors after the date hereof; (iii) the Common Stock issuable or issued upon the exercise of those certain warrants to purchase shares of Common Stock that were issued to certain Investors pursuant to the Purchase Agreement; and (iv) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i) and (ii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Subsection 6.1, and excluding for purposes of Section 2 any shares for which registration rights have terminated pursuant to Subsection 2.13 of this Agreement.

1.21. "**Registrable Securities then outstanding**" means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.22. "**Restricted Securities**" means the securities of the Company required to be notated with the legend set forth in Subsection 2.12(b) hereof.

1.23. "**SEC**" means the Securities and Exchange Commission.

1.24. "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.25. "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.26. "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.27. "**Selling Expenses**" means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Subsection 2.6.

1.28. "**Preferred Director**" means any director(s) of the Company that the holders of record of the Series A-1 Preferred Stock and Series A-2 Preferred Stock are entitled to elect pursuant to the Company's Certificate of Incorporation.

1.29. "**Series A-1 Preferred Stock**" means shares of the Company's Series A-1 Convertible Preferred Stock, par value $0.00001 per share.

1.30. "**Series A-2 Preferred Stock**" means shares of the Company's Series A-2 Convertible Preferred Stock, par value $0.00001 per share.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after the earlier of (i) five (5) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration statement for the IPO, the Company receives a request from Holders of more than fifty percent (50%) of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement with respect to Registrable Securities then outstanding with an anticipated aggregate offering price of at least $5 million, then the Company shall (x) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsections 2.1(c) and 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least twenty percent (20%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least $1 million, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsections 2.1(c) and 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Subsection 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Company's Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than ninety (90) days after the request of the Initiating Holders is given; *provided, however*, that the Company may not invoke this right more than once in any twelve (12) month period; and, *provided further, however* that the Company shall not register any securities for the account of itself or any other stockholder during such ninety day period (other than an Excluded Registration).

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(a), (i) during the period that is ninety (90) days before the Company's good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two registrations pursuant to Subsection 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Subsection 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(b) (i) during the period that is ninety (90) days before the Company's good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration, *provided*, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two registrations pursuant to Subsection 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Subsection 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration (other than as a result of a material adverse change to the Company), elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Subsection 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Subsection 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its Common Stock under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Subsection 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Subsection 2.1(c) before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Subsection 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Subsection 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Subsection 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Subsection 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Subsection 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Subsection 2.1(c), the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, or (ii) the number of Registrable Securities included in the offering be reduced below thirty percent (30%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering. For purposes of the provision in this Subsection 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "Selling Holder," as defined in this sentence.

(c) For purposes of Subsection 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Subsection 2.3(a), fewer than seventy five percent (75%) of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements, not to exceed $20,000 of one counsel for the selling Holders ("**Selling Holder Counsel**"), shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Subsection 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Subsections 2.1(a) or (b), as the case may be. All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Subsections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Subsection 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Subsection 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Subsection 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Subsection 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Subsection 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Subsection 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Subsection 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability pursuant to this Subsection 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Subsection 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Subsection 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); and (ii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would allow such holder or prospective holder (i) to include such securities in any registration unless, under the terms of such agreement, such holder or prospective holder may include such securities in any such registration only to the extent that the inclusion of such securities will not reduce the number of the Registrable Securities of the Holders that are included or (ii) to initiate a demand for registration of any securities held by such holder or prospective holder; *provided that* this limitation shall not apply to any additional Investor who becomes a party to this Agreement in accordance with Subsection 6.9.

2.11 "Market Stand-off" Agreement. Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the registration by the Company for its own behalf of shares of its Common Stock or any other equity securities under the Securities Act on a registration statement on Form S-1 or Form S-3, and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days in the case of the IPO, or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports, and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), or ninety (90) days in the case of any registration other than the IPO, or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), (i) lend; offer; pledge; sell; contract to sell; sell any option or contract to purchase; purchase any option or contract to sell; grant any option, right, or warrant to purchase; or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock (whether such shares or any such securities are then owned by the Holder or are thereafter acquired) or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Subsection 2.11 shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Holder or the immediate family of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, and shall be applicable to the Holders only if all officers and directors are subject to the same restriction. The underwriters in connection with such registration are intended third party beneficiaries of this Subsection 2.11 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Subsection 2.11 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply pro rata to all Holders subject to such agreements, based on the number of shares subject to such agreements.

2.12 Restrictions on Transfer.

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

(b) Each certificate, instrument, or book entry representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Subsection 2.12(c)) be notated with a legend substantially in the following form:

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Subsection 2.12.

(c) The holder of such Restricted Securities, by acceptance of ownership thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144; or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Subsection 2.12. Each certificate, instrument, or book entry representing the Restricted Securities transferred as above provided shall be notated with, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Subsection 2.12(b), except that such certificate instrument, or book entry shall not be notated with such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Subsections 2.1 or 2.1(c) shall terminate upon the earliest to occur of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation;

(b) such time as Rule 144 or another similar exemption under the Securities Act is available for the sale of all of such Holder's shares without limitation during a three-month period without registration; and

(c) the second anniversary of the IPO.

3. Information Rights.

3.1 Delivery of Financial Statements. The Company shall deliver to each Major Investor, provided that the Board of Directors has not reasonably determined that such Major Investor is a Competitor of the Company:

(a) as soon as practicable upon the receipt of Major Investor's written request, after the end of each fiscal year of the Company (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, and (iii) a statement of stockholders' equity as of the end of such year; and

(b) as soon as practicable upon the receipt of Major Investor's written request, after the end of each of the first three (3) quarters of each fiscal year of the Company, unaudited statements of income and cash flows for such fiscal quarter, and an unaudited balance sheet as of the end of such fiscal quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments; and (ii) not contain all notes thereto that may be required in accordance with GAAP), together with a written report of the President or Chief Executive Officer briefly summarizing the results from such quarter and any other material developments;

(c) as soon as practicable, but in any event within thirty (30) days of the end of each month, an unaudited income statement, statement of cash flows, bank reconciliation, and aging of accounts receivable and payable for such month, and an unaudited balance sheet as of the end of such month, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(e) as soon as practicable, but in any event thirty (30) days before the end of each fiscal year, a budget and business plan for the next fiscal year (collectively, the "**Budget**"), approved by the Board of Directors and prepared on a monthly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Subsection 3.1 to the contrary, the Company may cease providing the information set forth in this Subsection 3.1 during the period starting with the date sixty (60) days before the Company's good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company's covenants under this Subsection 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Major Investor (provided that the Board of Directors has not reasonably determined that such Major Investor is a competitor of the Company), at such Major Investor's expense, to visit and inspect the Company's properties; examine its books of account and records; and discuss the Company's affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Major Investor; provided, however, that the Company shall not be obligated pursuant to this Subsection 3.2 to provide access to any information that it reasonably and in good faith considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Termination of Information Rights. The covenants set forth in Subsection 3.1 and Subsection 3.2 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation, whichever event occurs first.

3.4 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Subsection 3.4 by such Investor), (b) is or has been independently developed or conceived by the Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Subsection 3.4; (iii) to any existing Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, provided that the Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

4. Rights to Future Stock Issuances.

4.1 Right of First Offer. Subject to the terms and conditions of this Subsection 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Major Investor. A Major Investor shall be entitled to apportion the right of first offer hereby granted to it in such proportions as it deems appropriate, among itself and its Affiliates; provided that each such Affiliate (x) is not a Competitor, unless such party's purchase of New Securities is otherwise consented to by the Board of Directors, (y) agrees to enter into this Agreement and the Voting Agreement of even date herewith among the Company, the Investors and the other parties named therein, as an "Investor" under each such agreement (provided that any Competitor shall not be entitled to any rights as a Major Investor under Subsections 3.1, 3.2 and 4.1 hereof), and (z) agrees to purchase at least such number of New Securities as are allocable hereunder to the Major Investor holding the fewest number of Preferred Stock and any other Derivative Securities.

(a) The Company shall give notice (the "**Offer Notice**") to each Major Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By notification to the Company within twenty (20) days after the Offer Notice is given, each Major Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock then held by such Major Investor (including all shares of Common Stock then issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held by such Major Investor) bears to the total Common Stock of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all Preferred Stock and other Derivative Securities. At the expiration of such twenty (20) day period, the Company shall promptly notify each Major Investor that elects to purchase or acquire all the shares available to it (each, a "**Fully Exercising Investor**") of any other Major Investor's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Major Investors were entitled to subscribe but that were not subscribed for by the Major Investors which is equal to the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of Preferred Stock and any other Derivative Securities then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held, by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Subsection 4.1(b) shall occur within the later of one hundred and twenty (120) days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to Subsection 4.1(c).

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Subsection 4.1(b), the Company may, during the ninety (90) day period following the expiration of the periods provided in Subsection 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Major Investors in accordance with this Subsection 4.1.

(d) The right of first offer in this Subsection 4.1 shall not be applicable to (i) Exempted Securities (as defined in the Company's Certificate of Incorporation); (ii) shares of Common Stock issued in the IPO; and (iii) the issuance of shares of Preferred Stock to Additional Purchasers pursuant to Subsection 1.3 of the Purchase Agreement.

4.2 Termination. The covenants set forth in Subsection 4.1 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation, whichever event occurs first.

5. Additional Covenants.

5.1 Insurance. The Company shall use its commercially reasonable efforts to obtain from financially sound and reputable insurers Directors and Officers liability insurance in an amount and on terms and conditions satisfactory to the Board of Directors, and will use commercially reasonable efforts to cause such insurance policies to be maintained until such time as the Board of Directors determines that such insurance should be discontinued.

5.2 Certain Employee Agreements. The Company will cause (i) each person now or hereafter employed by it or by any subsidiary (or engaged by the Company or any subsidiary as a consultant/independent contractor) with access to confidential information and/or trade secrets to enter into a nondisclosure and proprietary rights assignment agreement; and (ii) unless otherwise determined by the Board of Directors, each Key Employee to enter into a one (1) year non-solicitation and non-competition agreement, substantially in the form approved by the Board of Directors.

5.3 Employee Stock. Unless otherwise approved by the Board of Directors, all future employees and consultants of the Company who purchase, receive options to purchase, or receive awards of shares of the Company's capital stock after the date hereof shall be required to execute restricted stock or option agreements, as applicable, providing for (i) vesting of shares over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting following twelve (12) months of continued employment or service, and the remaining shares vesting in equal monthly installments over the following thirty-six (36) months, and (ii) a market stand-off provision substantially similar to that in Subsection 2.11.

5.4 Successor Indemnification. If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board of Directors as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, its Certificate of Incorporation, or elsewhere, as the case may be.

5.5 Matters Requiring Board of Directors Approval. So long as the holders of Preferred Stock are entitled to elect a Preferred Director, the Company hereby covenants and agrees with each of the Investors that it shall not, without approval of the Board of Directors:

(a) guarantee, directly or indirectly, or permit any subsidiary to guarantee, directly or indirectly, any indebtedness except for trade accounts of the Company or any subsidiary arising in the ordinary course of business;

(b) adopt an annual operating budget ("**Budget**");

(c) create, or authorize the creation of, or issue, or authorize the issuance of any debt security, or permit any subsidiary to take any such action with respect to any debt security, if the aggregate indebtedness of the Corporation and its subsidiaries for borrowed money following such action would exceed $200,000 individually or $400,000 in the aggregate in any fiscal year, other than equipment leases or bank lines of credit, unless such debt security has received the approval of the Board of Directors, including the Preferred Directors;

(d) make any capital expenditure in excess of $25,000 individually or $50,000 in the aggregate that is not contemplated by the then-approved Budget;

(e) increase or decrease the authorized number of directors constituting the Board of Directors;

(f) enter into any transaction with an investment bank, placement agent or similar third party to assist the Company with advertising and or selling its or its subsidiaries' equity or debt securities;

(g) otherwise enter into or be a party to, or amend or modify any transaction with any director, officer, or employee of the Company or any "associate" (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such Person, including without limitation any loan or advance to any such persons, except for loans, advances or similar expenditures in the ordinary course of business or under the terms of an employee stock or option plan approved by the Board of Directors; or

(h) hire or terminate any executive officer.

5.6 Termination of Covenants. The covenants set forth in this Section 5, shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, (iii) upon a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation, or (iv) at such time less than fifty percent (50%) of the Preferred Stock is outstanding, whichever event occurs first.

6. Miscellaneous.

6.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate of a Holder; (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (iii) after such transfer, holds at least 156,250 shares of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations); provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Subsection 2.11. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate or stockholder of a Holder; (2) who is a Holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

6.3 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including .pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on **Schedule A** or **Schedule B** (as applicable) hereto, or to the principal office of the Company and to the attention of the Chief Executive Officer, in the case of the Company, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Subsection 6.5. If notice is given to the Company, a copy shall also be sent to Foley & Lardner LLP, 975 Page Mill Rd., Palo Alto, CA 94304, Attn: E. Thom Rumberger Jr., Esq.

6.6 Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of a majority of the Registrable Securities then outstanding; provided that the Company may in its sole discretion waive compliance with Subsection 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Subsection 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, this Agreement may not be amended or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, termination, or waiver applies to all Investors in the same fashion (it being agreed that a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction). The Company shall give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination, or waiver effected in accordance with this Subsection 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of the Company's Series A-2 Preferred Stock after the date hereof, whether pursuant to the Purchase Agreement or otherwise, any purchaser of such shares of Series A-2 Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

6.10 Entire Agreement. This Agreement (including any Schedules and Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled.

6.11 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of the Commonwealth of Massachusetts and to the jurisdiction of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Massachusetts or the United States District Court for the District of Massachusetts, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL. EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL

The prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled. Each of the parties to this Agreement consents to personal jurisdiction for any equitable action sought in the U.S. District Court for the Northern District of Massachusetts or any court of the State of Massachusetts having subject matter jurisdiction.

6.12 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

SEQLL INC.

By: /s/ Elizabeth Reczek

Name: Elizabeth Reczek

Title: Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR:

GENOMIC DIAGNOSTIC TECHNOLOGIES, INC.

By: /s/ William St. Laurent

Name: William St. Laurent

Title: President

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR:

/s/ Eleanor St. Laurent

Eleanor St. Laurent

Address: 120 NE 136th Ave., Suite 200,
Vancouver, WA 98684

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR:

/s/ Georges C. St. Laurent, Jr.

Georges C. St. Laurent, Jr.
Address: 120 NE 136th Ave., Suite 200,
Vancouver, WA 98684

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR:

FLORENCE H JONES REV TRUST U/A 07/22/03

By: /s/ Florence H. Jones
Name: Florence H. Jones
Title: Trustee

By: /s/ Robert P. Jones
Name: Robert P. Jones
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR:

/s/ Tisha Jepson

Tisha Jepson
Address: 3732 Manor Road, #4,
Chevy Chase, MD 20815

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR:

THE JAMES P MISCOLL BYPASS TRUST

By: /s/ Douglas Miscoll
Name: Douglas Miscoll
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR:

GEORGES C. ST. LAURENT, III
DESCENDANTS' TRUST

By: /s/ William St. Laurent
Name: William St. Laurent
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Investors' Rights Agreement as of the date first written above.

INVESTOR:

WILLIAM C. ST. LAURENT
DESCENDANTS' TRUST

By: /s/ William St. Laurent
Name: William St. Laurent
Title: Trustee

SCHEDULE A

INVESTORS

Name and Address	Number of Series A-1 Preferred Stock	Number of Series A-2 Preferred Stock
Genomic Diagnostic Technologies, Inc. *375 Commerce Way* *Suite 101* *Longwood, Florida 32750*	1,562,500	
Eleanor St. Laurent *120 NE 136th Ave.* *Suite 200* *Vancouver, WA 98684*	312,500	
Georges C. St. Laurent, Jr. *120 NE 136th Ave.* *Suite 200* *Vancouver, WA 98684*	781,250	
Georges C. St. Laurent, III *375 Commerce Way* *Suite 101* *Longwood, FL 32750*	31,250*	
FLORENCE H JONES REV TRUST U/A 07/22/03 *104 Pelczar Road* *Dracut, MA 01826*	62,500	
Tisha Jepson *3732 Manor Road, #4* *Chevy Chase, MD 20815*	78,125	
PROVIDENT TRUST, LLC FBO: TISHA JEPSON ROTH IRA *880 Sunset Road* *Suite #250* *Las Vegas, Nevada 89148*	156,250	
THE JAMES P MISCOLL BYPASS TRUST *146 W. Bellevue Avenue* *San Mateo, CA 94402*	78,125	
Bruce T. Block *9300 North Regent Road* *Bayside, WI 53217*	62,500	
Georges C. St. Laurent, III Descendants' Trust *120 NE 136th Ave, Suite 200* *Vancouver, WA 98684*	-	297,619
William C. St. Laurent Descendants' Trust *120 NE 136th Ave, Suite 200* *Vancouver, WA 98684*	-	297,619

* Shares currently held by the estate of Georges C. St. Laurent III, but such shares are to be transferred to Lucas Campbell and William Campbell upon completion of the estate’s probate process.

Exhibit 10.5

COMMERCIAL LEASE

LANDLORD:

JAM CAMBRIDE VENTURES, LLC

RAM CAMBRIDGE VENTURES, LLC

TENANT:

SEQLL LLC

PROPERTY:

317 New Boston Street, Woburn, MA 01801

LEASE DATE:

Nov 25, 2014

LEASE DOCUMENTS

COMMERCIAL LEASE

RIDER

FLOOR PLAN [EXHIBIT A]

AUTHORITY TO EXECUTE [EXHIBIT B]

LANDLORD RULES AND REGULATIONS [EXHIBIT C]

ST. LAURENT, INC., LEASE AS AMENDED [EXHIBIT D] NOTARY PUBLIC

COMMERCIAL LEASE

1. PARTIES	JAM CAMBRIDGE VENTURES, LLC and RAM CAMBRIDGE VENTURES, LLC, both Massachusetts Limited Liability companies with addresses of 237 Lexington Street, Woburn, MA 01801 ("Landlord"), does hereby lease to SEQLL LLC, a Massachusetts Corporation with a place of business at 317 New Boston Street, Woburn, MA 01801 ("Tenant"), the Premises (as defined below).
2. PREMISES	A portion of the building consisting of approximately 6,508 rentable square feet ("RSF") located at 317 New Boston Street, Woburn, Massachusetts 01801, known as Suite 230, as shown on Exhibit A (the "Premises"), together with the right to use in common with others entitled thereto, the hallways, and stairways, necessary for access to said leased premises, and lavatories therein, if any (the "Premises"). Except as set forth herein, the Premises are to be delivered in "as-is" condition as they are in on the date of this Lease. The actual rentable square footage will be calculated by the registered architect on the Project. With fourteen (14) days written notice to Tenant, Landlord shall have the right to take back approximately 315 rentable square feet, as shown on Exhibit A in the event any of the following are true, a) St. Laurent's Institute's lease in Suite 210 shall be ninety (90) days or less from expiration, b) St. Laurent Institute's lease shall not be coterminous with this Lease, or c) Tenant shall no longer allow St. Laurent Institute to make use of the loading door within the Premises. The decrease in Tenant's rentable square footage shall cause Landlord to recalculate Tenant's payments for Base Rent and Operating Expenses and Taxes based on the dollars per rentable square foot as defined in Section 3, Section 4 and Section 6 herein. Landlord shall construct the new demising wall so as to minimize any impact on Tenant's business operation. The building of which the Premises are a part is collectively referred to herein as the "Building" and the land on which the Building is located is referred to as the "Land". The Land and the Building are collectively referred to as the "Property". The buildings and improvements now and hereafter located or used in connection with the Property, including the Building, currently consisting of approximately 59,953 rentable square feet is referred to as the "Project". Rentable square footage for the purpose of this Lease shall be defined by Landlord in its sole discretion, by the gross measurement calculation of the Premises to the outside of the exterior wall plus a Common Area Factor (CAF) which shall be a percentage of the rentable square feet of the Project's total common area which presently equals 15% and which may be defined by the Landlord from time to time as any additional common areas are built, not to exceed 16%.

3. TERM	The term of this Lease shall be for SIXTY (60) months and is projected to commence on February 1, 2015 (the "Term Commencement Date") and to terminate on January 31, 2020. (the "Term Expiration Date"). The Actual term Commencement Date and Term Expiration Date shall be memorialized in an amendment upon issuance of Certificate of occupancy or temporary certificate of occupancy from the City of Woburn, CO or TCO. The ("Rent Commencement Date") shall be the Term Commencement Date. Tenant shall have the right to extend its tenancy for one (1) five (5) year term by providing written notice at least nine (9) months prior to lease expiration. Base rental rate during each "Option Period" shall begin at, $9.85/RSF per year with increases annually of 2% or CPI NE. whichever is higher.
4. RENT	Tenant shall commence paying utilities, Tenant's Share of Taxes and Operating Expenses (as defined below), and any other additional rents, if any, on February 1, 2015. Tenant shall pay, without any offset or reduction, Rent to Landlord beginning on the Rent Commencement Date and continuing through the Term Expiration Date. Tenant shall pay, without any offset or reduction, Rent to Landlord at the rate of: Commencing on the Rent Commencement Date and continuing for 12 months, the Base Rent shall be at the rate of $8.15 per rentable square foot ("RSF") or $41,923.60 annually in equal monthly installments of $3,493.63 each payable in advance by the first day of each month, plus NNN. Base Rent Year Two (2): the Base Rent shall be at the rate of $8.50 per rentable square foot ("RSF") or $43,724.00 annually in equal monthly installments of $3,643.66 each payable in advance by the first day of each month, plus NNN. Base Rent Year Three (3): the Base Rent shall be at the rate of $8.95 per rentable square foot ("RSF") or $46,038.80 annually in equal monthly installments of $3,836.56 each payable in advance by the first day of each month, plus NNN.

Base Rent Year Four (4): the Base Rent shall be at the rate of $9.40 per rentable square foot ("RSF") or $48,353.60 annually in equal monthly installments of $4,029.46 each payable in advance by the first day of each month, plus NNN.

Base Rent Year Five (5): the Base Rent shall be at the rate of $9.40 per rentable square foot ("RSF") or $50,668.40 annually in equal monthly installments of $4,222.36 each payable in advance by the first day of each month, plus NNN.

There will be a late charge for payments made after the first (1^{st}) of the month, which charge shall be Twelve percent (12%) per year. Failure to pay the late charge is a default under the terms of the Lease. A 7-day grace period will be allowed once in any 12-month period. Tenant acknowledges and waives any/all rights to offset or reduce payments due under this Lease.

5. SECURITY DEPOSIT

A Security Deposit in the amount of $8,000 shall be paid to Landlord by Tenant upon execution of this Lease, which shall be held as security for Tenant's performance of any and all of its obligations hereunder.. Upon the occurrence of a default under this Lease by Tenant, Landlord may, in its sole discretion, apply the Security Deposit to cure such default and Tenant shall restore the Security Deposit to the sum of $8,000 (or such adjusted amount). Upon a transfer of the Property, Tenant agrees to look solely to such transferee for the return of the Security Deposit provided Landlord discloses same to such transferee prior to transfer.

6. TAXES AND OPERATING EXPENSES

Tenant shall pay to Landlord in advance of the first day of each month, commencing on the Term Commencement Date, as additional rent, the Tenant's Share (as defined below) of (i) the Taxes (as defined below) and (ii) Operating Expenses (as defined below).

"Taxes" shall mean all real estate taxes, personal property taxes, assessments, additional water and sewer related charges and all municipal, state and federal charges levied or assessed or imposed on the Project.

"Operating Expenses" shall mean all expenses, costs and disbursements of every kind and nature which Landlord shall pay or become obligated to pay in connection with the Project, including without limitation, (i) insurance premiums paid in connection with the Project; (ii) all utility charges for the Project; (iii) compensation and benefits for Landlord's employees and agents, engaged in the operation and maintenance of the Project; (iv) worker's compensation costs and payroll taxes for said employees and agents to be prorated when employee is not full time at the Project; (v) payments to independent contractors for maintenance, repairs, cleaning, management, legal, accounting and maintenance of the Project including utility systems; and (vi) generally all reasonable expenses incurred by Landlord in connection with its operation of the Project.

"Tenant's Share" shall mean 10.8552%. The gross building method shall be used to determine both rentable and usable square footages with the gross measurement to the outside of the exterior wall. Useable to rentable factor is subject to periodic review and update. The CAF is not to exceed 16%.

THIS LEASE IS A TRIPLE NET LEASE ("NNN") AND LANDLORD SHALL NOT BE OBLIGATED TO PAY ANY CHARGE OR BEAR ANY EXPENSE WHATSOEVER AGAINST OR WITH RESPECT TO THE PREMISES EXCEPT TO THE EXTENT SPECIFICALLY SET FORTH HEREIN NOR SHALL RENT, ADDITIONAL RENT AND ANY OTHER CHARGES PAYABLE HEREUNDER BE SUBJECT TO ANY REDUCTION OR OFFSET WHATSOEVER ON ACCOUNT OF SUCH CHARGE. IN ORDER THAT THE RENT SHALL BE ABSOLUTELY NET TO LANDLORD, TENANT COVENANTS AND AGREES TO PAY AS ADDITIONAL RENT TAXES, BETTERMENT ASSESSMENTS, INSURANCE COSTS, OPERATING EXPENSES AND UTILITY CHARGES WITH RESPECT TO THE PREMISES AS PROVIDED HEREIN.

7. UTILITIES

The Tenant shall pay all bills for utilities furnished to the Premises, including, without limitation, electricity, gas, water, sewer, telephone and other services and including heat and air conditioning. Landlord shall not be liable for any interruption in utilities or services serving the Premises.

The suite shall be separated metered or submetered for electric and gas, and submetered for water.

Landlord shall have no obligation to provide utilities or equipment other than the utilities and equipment within the Premises as of the Term Commencement Date. In the event Tenant requires additional utilities or equipment, the installation and maintenance thereof shall be the Tenant's sole obligation and risk. Landlord makes no representations or warranties to the availability of additional utilities available from the utility providers, provided that such additional utility services are available then, any installation shall be subject to the prior written consent of the Landlord.

Existing rooftop HVAC units shall be maintained by the Landlord as a part of general maintenance and repair at the property. If any server room or lab room should need supplementary HVAC services and Tenant desires to have additional work performed, then Tenant shall use Landlord's designated HVAC contractor. Tenant shall be responsible for maintenance of said supplementary HVAC work. At the termination of this Lease or any amendment the supplementary HVAC equipment shall remain with the demised Premises and will become property of the Landlord.

Notwithstanding anything contained in this Lease to the contrary, (i) Landlord shall not be responsible or liable for damages or injuries sustained by Tenant or those claiming by, through or under Tenant, and (ii) Tenant shall not be relieved from the performance of its obligations, including, but not limited to, Tenant's obligation to pay Base Rent and additional rent, because of the interruption, discontinuance, quality or quantity of any utility used in or for the Premises, whether or not supplied by Landlord, and regardless of the reason or cause of the interruption or discontinuance.

8. TENANT IMPROVEMENTS

Upon execution of Lease, Tenant shall deposit with Landlord the amount of $25,000 to be used toward Tenant Improvements of the Premises as herein defined. Tenant shall pay a total of $54,000 towards Tenant Improvements. Landlord shall provide the following improvements in accordance with the floor plan attached as Exhibit A: New demising walls to the roof deck.
New interior walls to the underside of the existing ceiling.
Building standard doors/hardware.
Building standard fire alarm.
Building standard paint.
Building standard base cove.
Building standard ceiling tile repair.
Additional outlets as shown on Exhibit A.
Electric supply and distribution as shown on Exhibit A.
Existing HVAC shall be ducted to separate the Premises.
Install carpet tiles removed from Suite 210.
Expansion joints in existing polished floor.
Minor floor repairs where deemed necessary.
Mechanical punch code door entries (2).

The Premises shall be delivered to Tenant in good working order, with all building systems working, and in good condition and meeting building code such that Certificates of Occupancy are issued. Landlord shall construct and complete Tenant Improvements in a reasonably timely and good and workmanlike manner. Upon delivery of the space with substantial completion and a Certificate of Occupancy, Tenant shall promptly pay to Landlord the remaining $29,000 balance prior to taking occupancy.

Costs associated with performing the Tenant Improvements as outlined herein and shown on Exhibit A that are above the sum of $53,210 shall be the responsibility of the Landlord. Any changes to the Tenant Improvements as outlined herein and shown on Exhibit A shall be promptly paid for by Tenant prior to execution of work. Additionally, Tenant shall incur any charges from project architect or Landlord supplied labor/professionals required for such changes to Exhibit A as outlined herein.

9. USE OF LEASED PREMISES

Tenant shall use the Premises for engineering, office and its auxiliary uses, provided that such use must comply with all applicable zoning regulations and all other applicable Federal, State and Municipal laws and Landlord's rules and regulations, adopted from time to time.

Tenant acknowledges and agrees that no chemicals or solutions shall be used, or disposed of within the Premises, but may be stored in sealed and unopened containers to the extent that they pose no hazard to the Project or any building occupants. No hazardous materials shall be allowed at the Project. Tenant is satisfied that the uses meet the municipal zoning ordinances and agrees to indemnify and hold harmless Landlord from and against any and all losses, claims or damages arising from Tenant's failure to determine whether the proposed uses comply with the provisions of this Section.

Notwithstanding the above, Tenant's obligations hereunder are subject to the issuance of a temporary or permanent Certificate of Occupancy from the local building inspector's office.

10. COMPLIANCE WITH LAWS

Tenant acknowledges that no trade or occupation shall be conducted in the Premises or use made thereof which will be unlawful, improper, unreasonably noisy or offensive, or contrary to any law or any municipal by-law, regulation or ordinance in force in the City or Town in which the Premises are situated or contrary to any of the Landlord's current or future adopted rules and regulations. Said non-compliance shall be considered a breach of this Lease. Also, Tenant acknowledges that it is Tenant's responsibility to comply with all aforementioned laws related to Tenant's use of the Premises, which may change from time to time. Tenant shall pay for any and all costs associated with the compliance of the current and future laws.

11. FIRE INSURANCE

Tenant shall not permit any use of the Premises which will make void any insurance on the Project or on the contents of the Project or which shall be contrary to any law or regulation from time to time established by the New England Fire Insurance Rating Association, or any similar body succeeding to its powers. Tenant shall on demand reimburse Landlord, and all other tenants, for all extra insurance premiums resulting from Tenant's use of the Premises.

12. MAINTENANCE

A. TENANT'S OBLIGATION

Tenant agrees to maintain the Premises in good and working condition, damage by fire and other casualty excepted, and whenever necessary to replace plate glass, acknowledging that the Premises are now in good order and the glass whole. Notwithstanding the foregoing, Tenant acknowledges that any alterations to the Premises may affect the continued good working order of the system. Tenant shall not permit the Premises to be overloaded, damaged, stripped or defaced, nor suffer any waste. Tenant shall not install any signs at the Project. Tenant shall request Landlord's prior written consent with regard to the above, which consent may be withheld at Landlord's sole and absolute discretion.

B. LANDLORD'S OBLIGATION

Landlord agrees to maintain the structure of the Building in the same condition as it is at the Term Commencement Date or as it may be put in during the Term of and pursuant to the terms of this Lease, reasonable wear and tear, damage by fire or other casualty and damage caused by Tenant is excepted. Tenant acknowledges that with reasonable notice the Landlord will respond and make efforts to repair any problems as the seasonal or daily weather permit. Tenant also acknowledges they may not use any such problems, should they arise, as an excuse to break this Lease and will make reasonable efforts to cooperate and assist the Landlord.

13. ALTERATIONS & ADDITIONS

Tenant shall not make structural alterations, installations or additions to the Premises without Landlord's prior written consent, which consent may be withheld by Landlord in its sole discretion. Landlord or its agents must perform said alterations, installations or additions, unless otherwise mutually agreed in writing by Landlord and Tenant. All such allowed alterations shall be at Tenant's sole cost and expense and shall be in quality at least equal to or better than present construction. Tenant shall not permit any mechanics' liens, or similar liens, to remain upon the Premises for labor and material furnished to Tenant or claimed to have been furnished to Tenant in connection with work of any character performed or claimed to have been performed at the direction of Tenant and shall cause any such lien to be released of record forthwith without cost to Landlord. Any alterations, installations or additions made to the Premises shall become the property of the Landlord upon installation and shall be left in the Premises by the Tenant, unless Landlord at its sole discretion instructs Tenant to remove any alterations, installations or additions made to the Premises at the expiration or other termination of this Lease.

Tenant, at Tenant's sole expense, with Landlord's reasonable consent, may install necessary trade fixtures, equipment and furniture in the Premises and make non-structural alterations as it may deem desirable for its use thereof; provided, however, that Tenant shall assume the cost incurred as a result of any upgrades required to the Building systems or structure to support the installations referenced in this paragraph at the Project.

Any trade fixtures, equipment and furniture installed shall remain Tenant's property and shall be removed by Tenant prior to expiration of the Term or upon earlier termination of this Lease. Tenant shall repair, at Tenant's sole expense, all damage to the Premises caused by the installation or removal of trade fixtures, equipment, furniture or tenant installed improvements.

14. SIGNAGE

Tenant will be included in all Project standard sign programs.

15. COMMUNICATIONS

Tenant shall be financially responsible for all wiring of voice and data from the main electric room to the Project and for all wiring within the Premises.

16. ASSIGNMENT & SUBLETTING

Tenant shall not assign or sublet the whole or any part of the Premises to any tenant within the Project without Landlord's consent, which may be withheld or delayed by Landlord in its sole discretion. Tenant shall not assign or sublet the whole or any part of the Premises without Landlord's prior written consent, which may not be unreasonably withheld by Landlord, but maybe conditioned by Landlord or its Lender. Tenant shall tender to Landlord upon its request, a nonrefundable processing fee of $1,000.00, and Landlord shall have the right, at a minimum, to review financial statements, identity and business of any prospective assignee or subtenant before making a decision to grant consent.

Landlord shall never be deemed unreasonable in denying its consent to an assignment of this Lease or a subletting of all or any portion of the Premises under the following circumstances:

A: Landlord, after reviewing the proposed subtenant or assignee's financial statements, shall determine in its sole discretion that the net worth or financial capability of such proposed subtenant or assignee is less than the net worth or financial capability of Tenant or adequate to fulfill the financial obligations of this Lease;

B. if such assignment or subletting would require the Premises to be used for a use that is dissimilar to Tenant's use, or in Landlord's sole discretion would result in a use conflict or compete with a use granted to another tenant at the Project;

C. if there is a vacancy at the Project and if the terms and conditions of the proposed sublease or assignment are less favorable than those terms and conditions on which Landlord is then offering to lease vacant space at the Project; or

D. if Tenant is in default (beyond any applicable notice and cure period) of its obligations under this Lease

Notwithstanding such consent, Tenant shall remain liable to Landlord for the payments of all Base Rent and Additional Rent and for the full performance of the covenants and conditions of this Lease. For the purposes of this Lease, any transfer of interest in Tenant shall be deemed an assignment of this Lease. If Tenant requests Landlord's consent to assign this Lease or sublet all or any portion of the Premises, Landlord shall have the option, exercisable by written notice to Tenant given within thirty (30) days after receipt of such request, to terminate this Lease as of the date specified in such notice. If Landlord approves a sublease and said sublease is for a total rent amount which on an annual basis is greater than the Base Rent and Additional Rent due from the Tenant to the Landlord under this Lease, Tenant shall pay to Landlord, forthwith upon Tenant's receipt of each installment of such excess Base Rent and Additional Rent, during the term of any approved sublease, as Additional Rent and other payments due under this Lease, an amount equal to one hundred percent (100%) of the positive excess between all Base Rent and Additional Base Rent and Additional Rent received by Tenant, less reasonable transaction costs, which shall include reasonable legal fees not to exceed $2,500.00 and brokerage commissions, under the sublease and the aggregate of Base Rent and Additional Rent due hereunder.

Notwithstanding any provision to the contrary, there shall be no restriction on Tenant's right to assign or transfer this Lease to its parent or any subsidiary or affiliate, or to any party in connection with or merger or consolidation involving Tenant or a sale of all or substantially all of Tenant's assets, provided that such successor has as high a net worth as Tenant on (a) the Term Commencement Date or (b) the date of the transfer of this Lease, whichever date the net worth is higher. If this standard is not met, Landlord shall have the right of recapture.

17. SUBORDINATION	This Lease shall be subject and subordinate to any and all mortgages, deeds of trust and other instruments in the nature of a mortgage, now existing or at any time hereafter arising, a lien or liens on the property of which the leased premises are a part. Tenant shall, when requested, promptly execute and deliver such written instruments in a form acceptable to the Lender in its sole discretion as shall be necessary to show the subordination of this Lease to said mortgages, deeds of trust or other such instruments in the nature of a mortgage. Tenant's failure to execute and return documents to Landlord within seventy-two (72) hours of receipt by Tenant or Tenant's agent shall be deemed a breach of this Lease.
18. TENANT'S ACCESS	Tenant shall have access to their Premises 24 hours per day, 7 days per week. Landlord to provide keys upon request of tenant for up to ten copies to be included at Landlord's expense.
19. LANDLORD'S ACCESS	Landlord or agents of Landlord may show the Premises to others with reasonable notice, and at any time before the Term Expiration Date for the purpose related to the sale, lease or refinancing of the Project, including emergencies in which case Landlord may enter the Premises without any notice at any time. Landlord may remove placards and signs not approved and affixed as herein provided, and make repairs, installations and alterations as Landlord deems necessary. Tenant shall provide Landlord or its agents alarm codes and keys. Tenant's refusal to provide Landlord or its agent's access as stated above shall be deemed a breach of this Lease.
20. INDEMNIFICATION AND LIABILITY	A. Tenant agrees to defend, indemnify and save harmless the Landlord, the Landlord's managing agent and any holder of a mortgage on all or any portion of the Premises from (i) any act, omission or negligence of the Tenant, or the Tenant's contractors, licensees, agents, servant, or employees, or arising from any accident, injury, or damage whatsoever caused to any person, or to the property of any person, or (ii) any violation of applicable law including, without limitation, any law, regulation or ordinance concerning trash, hazardous materials, or other pollutant occurring from and after the date that possession of the Premises is delivered to the Tenant and until the end of the Term hereof in or about the Premises, or (iii) any accident, injury or damage occurring outside the Premises, where such accident, damage or violation or applicable law results in injury from act or omission on the part of the Tenant or the Tenant's agents or employees. This indemnification and hold harmless agreement shall survive termination of this Lease and include indemnity against all costs, expenses and liabilities incurred in or in connection with any such claim or proceeding brought thereon, and the defense thereof. Landlord agrees to pursue all of its rights under Tenant's insurance policy before seeking indemnification from Tenant, provided that Tenant's policy is on an occurrence basis policy with limits as required by Section 21.

Landlord agrees that Tenant's indemnity shall only apply to the extent Landlord does not recover such costs, expenses and liabilities under any such policy. Tenant agrees that Tenant's insurance shall be the primary insurance policy and that said policy shall be exhausted in its totality before Landlord seeks its own rights to recover under any additional policy.

B. Tenant agrees that Landlord shall not be responsible or liable to Tenant, or to those claiming by, through or under Tenant, for any loss or damage that may be occasioned by or through the acts or omissions of persons occupying any adjoining space or any part of the Building, or for any loss or damage resulting to Tenant or to those claiming by, through or under Tenant, or its or their property, from the bursting, stopping or leaking of water, gas, sprinklers, sewer or steam pipes, unless such damage is caused by the sole or gross negligence of Landlord.

21. TENANT'S LIABILITY INSURANCE

Tenant shall maintain with respect to the Premises and the Project, commercial general liability insurance in the amount of two million dollars ($2,000,000) with property damage insurance in limits of one million dollars ($1,000,000) in responsible companies qualified to do business in Massachusetts and in good standing therein insuring the Landlord as well as Tenant against injury to persons or damage to property as provided. Landlord shall be designated as an additional insured on any such policy. Tenant shall deposit with the Landlord certificates of such insurance at or prior to the Term Commencement Date and thereafter within thirty (30) days prior to the expiration of any such policies. All such insurance certificates shall provide that such policies shall not be altered or canceled without at least thirty (30) days prior written notice to Landlord.

Tenant waives all claims, causes of action and rights of recovery against Landlord for any loss or damage to persons, property or business which occur on or about the Premises or the Building or the Project and results from any of the perils insured under any policy of insurance maintained by Tenant, regardless of cause. This waiver includes the negligence and intentional wrongdoing of Landlord, its agents, officers and employees, but is effective only to the extent of recovery, if any, under such policy. This waiver will be void to the extent that any such insurance is invalidated by reason of this waiver.

22. FIRE, CASUALTY, EMINENT DOMAIN

Should a substantial portion of the Premises or of the Project be substantially damaged by fire or other casualty, or be taken by eminent domain, Landlord may elect to terminate this Lease. When such fire, casualty or taking renders the Premises substantially unsuitable for their intended use, Tenant may elect to terminate this lease if:

(a) Landlord fails to deliver written notice within sixty (60) days of intention to restore Premises, or

(b) Landlord fails to restore the Premises to a condition substantially suitable for their intended use within one hundred twenty (120) days of (i) receipt of insurance proceeds in the case of fire or casualty or (ii) receipt of the award in the case of a taking.

Landlord reserves, and Tenant grants to Landlord, all rights which the Tenant may have for damages or injury to the leased premises for any taking by eminent domain, except for damage to the Tenant's fixtures, property or equipment.

23. DEFAULT & BANKRUPTCY

In the event that:

(a) Tenant shall default in the payment of any installment of rent or other sum herein specified and such default remains uncured for a period of five (5) days; or

(b) Tenant shall vacate or abandon all or any part of the Premises or fail to continuously occupy the Premises; or

(c) Tenant shall default in the observance or performance of any other of Tenant's covenants, agreements or obligations hereunder, such default not having been cured within 15 (fifteen) days of receiving written notice of such default; or

(d) Tenant shall suffer a material adverse change in its business, as determined by Landlord; or

(e) Tenant shall be declared bankrupt or insolvent according to law, or, if any assignment shall be made of Tenant's property for the benefits of creditors, provided,

Then Landlord shall have the right to proceed with summary process to remove Tenant from the Premises. In the event of default by Tenant, Tenant shall pay to Landlord all costs and expenses incurred in enforcing the terms of this Lease, including reasonable attorney's fees, whether or not legal proceedings are instituted. Tenant shall indemnify the Landlord against all loss of rent and other payments, which the Landlord may incur by reason of such termination during the balance of the Term of this Lease.

If Tenant shall default in the observance or performance of any conditions or covenants on Tenant's part to be observed or performed hereunder or by virtue of any of the provisions in any article of this Lease other than Tenant's rental payment obligations, Landlord, without being under any obligation to do so and without thereby waiving such default, may remedy such default for the account and at the expense of the Tenant. If the Landlord makes any expenditures or incurs any obligations for the payment of money in connection therewith, including but not limited to, all attorney's fees in instituting, prosecuting or defending any action or proceeding, such sums paid or obligations incurred, with interest at a rate of one and one-half (1.5%) percent per month and costs, shall be paid to the Landlord by the Tenant as additional rent upon notice from Landlord to Tenant of such costs and expenses.

Notwithstanding anything contained in this Lease to the contrary, Landlord shall not be in default in the performance of any of Landlord's obligations under this Lease unless and until Landlord shall have failed to perform such obligations within thirty (30) days, or such additional time as is required to correct any such default, after receipt of written notice from Tenant to Landlord specifying Landlord's failure to perform any such obligation. If Tenant claims or asserts that Landlord is in default in the performance of Landlord's obligations under this Lease, Tenant's sole remedy shall be an action for specific performance, declaratory judgment or injunction. In no event shall Tenant claim or assert any claim for monetary damages in any action or by way of setoff, defense or counterclaim. Tenant hereby waives the right to any monetary damages, to terminate this Lease of any other remedies available at law or in equity.

24. SURRENDER

Tenant shall, at the expiration or other termination of this Lease, remove all Tenant's goods and effects from the Premises (including without hereby limiting the generality of the foregoing, all signs and lettering affixed or painted by Tenant, either inside or outside the Premises). Tenant shall deliver to Landlord the Premises and all keys, locks thereto, alarm codes, all alterations, installations and additions made to or upon the Premises, in good condition, damage by fire or other casualty only excepted. In the event of the Tenant's failure to remove any of Tenant's property from the Premises, Landlord is hereby authorized, without liability to Tenant for loss or damage thereto, and at the sole risk of Tenant, to remove and store any of the property at Tenant's expense, or to retain same under the Landlord's control or to sell at public or private sale, without notice, any or all of the property not so removed and to apply the net proceeds of such sale to the payment of any sums due hereunder, or to destroy such property.

25. GOVERNING LAW, ETC.	This Lease shall be governed by and construed under the laws of the Commonwealth of Massachusetts and shall take effect as a sealed instrument. All terms, covenants and obligations hereunder shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and assigns. No alterations, amendments or waivers hereunder shall be valid or enforceable absent a written instrument signed by all parties hereto. No waiver of any provision hereunder on one occasion shall be deemed to be a waiver on future occasions. All obligations hereunder shall be obligations for each Tenant both jointly and severally. The parties hereto agree that this Lease contains the entire agreement between the parties and that it supersedes all prior agreements and negotiations. Tenant has not relied upon any representation not contained within this Lease and acknowledges that neither Landlord nor its agents have made any warranties or representations of any kind or nature other than those expressly set forth herein.
26. NON-INTERFERENCE	Tenant hereby acknowledges that after the execution date hereunder, Landlord or its affiliates may, from time to time, in connection with any space or parcel(s) (including without limitation any space or parcel(s) which abut the Premises), seek to obtain various approvals, variances, permits, authorizations and/or special permits and the like from the local municipality and the Commonwealth of Massachusetts. Tenant hereby agrees to cooperate with Landlord in all such efforts and agrees not to oppose or interfere with Landlord, its affiliates, agents, designees, appointees or assigns, in Landlord's attempts to obtain any such approvals, variances, permits, authorizations and/or special permits and the like. Tenant's obligations under this paragraph shall be binding on the Tenant's officers, directors, shareholders and employees and shall survive the termination of the Lease. Tenant acknowledges that any interference shall be deemed a breach of this Lease and Landlord, at its sole discretion, may terminate this Lease.
27. BROKERAGE	Tenant and Landlord represent and warrant that they have dealt with no brokers in this transaction. Each of the parties represents and warrants that there are no other claims for brokerage commissions or finder's fees in connection with the execution of this Lease, and each of the parties agrees to indemnify the other against, hold it harmless from all liabilities arising from any such claim including without limitation, the cost of counsel fees in connection therewith.
28. FORCE MAJEURE	If Landlord is delayed, hindered or prevented from the performance of an obligation because of strikes, lockouts, labor troubles, the inability to procure materials, power failure, restrictive governmental laws or regulations, riots, insurrection, war or another reason not the fault of Landlord, then Landlord's performance shall be excused for the period of delay.

29. INDEPENDENT COVENANTS

Landlord and Tenant agree that the obligations of Tenant hereunder, including, without limitation, Tenant's obligation to pay rent and additional rent, are independent and not mutually dependent covenants, and that the failure of Landlord to perform any obligation hereunder shall in no event justify or empower Tenant to withhold rent, additional rent or any other amount due to Landlord hereunder or to terminate the Lease. Tenant acknowledges that the foregoing is a material inducement to Landlord to enter into this Lease.

Executed as a sealed instrument this 25 day of November, 2014.

SEQLL LLC

By: /s/ Daniel R. Jones

Name: Daniel R. Jones

Title: Manager

JAM CAMBRIDGE VENTURES, LLC

By: /s/ Joseph A. Martignetti

Name: Joseph A. Martignetti
Title: Manager

By: /s/ Ronald A. Martignetti

Name: Ronald A. Martignetti
Title: Manager

RAM CAMBRIDGE VENTURES, LLC

By: /s/ Ronald A. Martignetti

Name: Ronald A. Martignetti
Title: Manager

By: /s/ Joseph A. Martignetti

Name: Joseph A. Martignetti
Title: Manager

RIDER

TO LEASE DATED_____, 2014

TENANT: SEQLL LLC

LANDLORD: JAM CAMBRIDGE VENTURES, LLC, RAM CAMBRIDGE VENTURES, LLC

A. Indemnification. Tenant further agrees to the extent acceptable under the law to defend, indemnify and hold Landlord harmless from and against any and all claims and damages for injury to person or damage to property, of any kind or nature, of any person or entity (including reasonable attorneys' fees) which may arise in connection with the Tenant's operation of its business on the Premises or at the Project.

B. No Joint Venture. Nothing contained in this Lease will be construed as creating a joint venture or partnership of or between Tenant and Landlord as to create any other relationship between the parties other than as Tenant and Landlord and Tenant hereby indemnifies and agrees to hold harmless Landlord from any and all damages resulting from such a construction of the relationship of the parties hereto.

C. Notices. Any notice or other communication in connection with this Lease shall be in writing and addressed as follows:

To Landlord:

Avenue Management, LLC

237 Lexington Street

Woburn, MA 01801

To Tenant:

SEQLL LLC

317 New Boston Street, Suite 210

Woburn, MA 01801

Such notice shall be delivered in hand or deposited in the United States mail, postage prepaid by registered or certified mail, return receipt requested. Any such address may be changed to any other address within the United States by written notice given in the aforesaid manner by the party desiring to effect the change. Any notice given in the aforesaid manner shall be deemed to have been duly given and received when so hand delivered or live (5) days after deposited with the United States Postal Service.

D. Authority to Execute. Tenant and Landlord covenant that the signatory of this Lease on behalf of each party is duly authorized to execute this Lease. To provide such evidence, Tenant shall provide at execution of this Lease, as Exhibit B, a notarized legal document authorizing the signatory to bind the corporation.

E. Parking. Parking spaces in the parking facility, are on an unreserved, unassigned basis in areas reasonably designated by Landlord from time to time (provided that the location and number of parking spaces available will not be materially reduced or altered). Notwithstanding the foregoing, Landlord reserves the right at any time to assign and reserve parking spaces and areas for specific individuals and/or tenants within the parking facility.

F. Holding Over. In the event that Tenant or anyone claiming by, through or under Tenant shall remain on the Premises after the termination of this Lease or any renewals, extensions or modifications thereof, Tenant shall forthwith be liable for and pay double the most recent rent as defined in Section 4 of the Lease.

G. Additional Remedies on Default. In the event of a default hereunder not cured within the applicable notice and cure period, notwithstanding any termination of this Lease or any re-entry by Landlord, Tenant agrees to pay and be liable for amounts equal to the full acceleration of this Lease of rent and any other charges herein reserved as they would, under the terms of this Lease, become due if this Lease had not been terminated or if Landlord had not re-entered the Premises and whether the Premises be re-let or remain vacant in whole or in part or for a period less than the remainder of the Term, or for the whole thereof; but in the event the Premises be re-let in whole or in part, by Landlord, Tenant shall be entitled to a credit in the amount of the rent received by Landlord in re-letting after deduction of reasonable expenses in re-letting the Premises and in collecting the rent in connection therewith.

H. Estoppel Certificate. Upon not less than seven (7) days prior written request, the Tenant agrees to execute, acknowledge, and deliver a statement in writing certifying that this Lease is unmodified and in full force and effect (or, if there have been any modifications that the same are in full force and effect as modified and stating the modification), and the dates to which the rent hereunder and other charges have been paid and any other information reasonably requested. Any such statement delivered pursuant to this paragraph may be relied upon by any prospective purchaser, mortgagee or lending source.

I. Confidentiality. Tenant agrees that the Terms of this Lease shall remain confidential and that any breach of this clause shall constitute a breach of the Lease. Tenant acknowledges and agrees that the terms contained herein are confidential to Landlord. Tenant agrees that it will keep all information confidential and will not disclose the terms of this Lease provided by Landlord with respect to base rent, taxes, operating costs, additional rents, etc. to other existing or prospective tenants except those officers, accountants, and lawyers of the Tenant. Any disclosure will be considered a breach of this Lease.

J. Cleaning. Tenant shall be responsible for the cost of cleaning the Premises which shall be arranged by Tenant.

K. Condominium. Landlord reserves the right at any time to convert the Project into a condominium in accordance with M.G.L. c.183A. Tenant agrees to execute all necessary documentation to effectuate said conversion provided the same does not unreasonably interfere with the use and enjoyment by Tenant of the Premises or otherwise affect the provisions of this Lease.

L. Relocation. Landlord reserves the right to relocate Tenant to other space within the Building by giving Tenant ninety (90) days written notice of such intention to relocate. On the date of such relocation, this Lease shall be amended by deleting the description of the Premises and substituting therefore the description of such space. Landlord agrees to pay the reasonable costs of moving Tenant to such other space within the Project, provided that Landlord shall not be obligated to expend more than rent due for three months under this Lease. In no event shall Tenant be reimbursed for costs incurred due to business interruption.

M. Financial Statements. Tenant agrees to deliver, upon request from Landlord: (1) statements of cash flows of the Tenant (2) income statements of the Tenant, and (3) balance sheets of the Tenant, all such statements to be in reasonable detail, including all supporting schedules and comments; the statements and balance sheets to be audited by and independent certified public accountant reasonably acceptable to the Landlord, and certified by such accountants to have been prepared in accordance with GAAP and to present fairly the financial position and results of operations of the Tenant.

N. No Accord and Satisfaction. No acceptance by Landlord of a lesser sum than the rent and additional rent then due shall be deemed to be other than on account of the earliest installment of such rent and additional rent due, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such installment or pursue any other remedy provided in this Lease.

O. Trash Removal. Tenant shall be responsible for their own trash removal. If Tenant fails to keep the dumpsters and the surroundings clean, Landlord may rescind the Tenant's use of a dumpster onsite. Location of the dumpster to be established by Landlord, subject to change from time to time.

P. Rules and Regulations. Tenant agrees to comply with all Rules and Regulations reasonably adopted by Landlord now or hereafter uniformly applied, which are attached hereto as Exhibit D and of which Tenant will be given notice and receive copies, for the care and use of the Building and Lot and their approaches, it being understood that Landlord shall not be liable to Tenant for the failure of other Tenants of the building to conform to such Rules and Regulations. In the event of a conflict between the terms and conditions of the Lease and the Rules and Regulations, the terms and conditions of the Lease shall control.

[Signatures on Next Page]

SEQLL LLC

By: /s/ Daniel R. Jones
Name: Daniel R. Jones
Title: Manager

JAM CAMBRIDGE VENTURES, LLC

By: /s/ Joseph A. Martignetti
Name: Joseph A. Martignetti
Title: Manager

By: /s/ Ronald A. Martignetti
Name: Ronald A. Martignetti
Title: Manager

RAM CAMBRIDGE VENTURES, LLC

By: /s/ Ronald A. Martignetti
Name: Ronald A. Martignetti
Title: Manager

By: /s/ Joseph A. Martignetti
Name: Joseph A. Martignetti
Title: Manager

EXHIBIT A

FLOOR PLAN (SEE ATTACHED)

EXHIBIT A

DRAWING FOR ILLUSTRATIVE PURPOSES ONLY. ARCHITECT SHALL DRAFT CONSTRUCTION DRAWINGS THAT MAY VARY SLIGHTLY TO MEET EXISTING CONDITIONS AND CODE REQUIREMENTS.

EXHIBIT B

AUTHORITY TO EXECUTE

PLEASE PROVIDE MANAGER’S CERTIFICATE

EXHIBIT B

MANAGER'S CERTIFICATE

I, Daniel R. Jones, hereby certify that I am a duly authorized signatory of Seqll, LLC, a limited liability company established under the laws of the Commonwealth of Massachusetts with a place of business at 317 New Boston Street, Woburn, Massachusetts, and pursuant to the Operating Agreement of Seqll, LLC, I am duly authorized to execute and deliver a lease dated November 25, 2014 on behalf of Seqll, LLC with RAM CAMBRIDGE VENTURES, LLC and JAM CAMBRIDGE VENTURES, LLC in the form attached hereto.

Dated: December 21, 2014

Attest: /s/ Daniel R. Jones

Manager: Daniel R. Jones

EXHIBIT C

Landlord Rules and Regulations

1. Heating, lighting and plumbing: The Landlord should be notified at once of any accidents to or defects in plumbing, electrical fixtures, or heating and cooling apparatus so that such accidents or defects may be attended properly.

2. Each Tenant shall see that all doors of its Premises are closed and securely locked and must observe strict care and caution of all its water faucets or water apparatus are entirely shut off before the Tenant or its employees leave such Premises.

3. No Tenant shall alter any lock or access device or install a new or additional lock or access device or any bolt on any door of its Premises without prior written consent of the Landlord. If Landlord shall give its consent, Tenant shall in each case furnish Landlord with a key and access code for any such lock. Costs associated with Tenant's own security system shall be the responsibility of the Tenant.

4. The sidewalks, entrances, halls and stairways shall not be obstructed by any Tenant or used for any purpose other than ingress and egress to and from their respective Premises, and no articles of rubbish shall be left herein.

5. No plumbing fixture or appliance shall be used for any purpose other than that for which it is intended, and no sweepings, rubbish, rags, ashes or other substances shall be thrown herein. Damage resulting to any such fixtures or appliances from misuse by Tenant shall be repaired and replaced at Tenant's sole cost and expense, and Landlord shall not in any case be responsible therefore.

6. Heavy Equipment - Tenant shall not place a load upon any floor in the Premises exceeding the floor load per square foot of area as allowed by law. Business machines and mechanical equipment shall be placed and maintained by Tenant at Tenant's sole cost and expense in settings sufficient, in Landlord's sole judgment, to absorb and prevent vibration, noise and disturbance that may be transmitted to the Building's structure.

   Tenant shall not move any safe, heavy machinery, heavy equipment, freight, bulky matter or fixtures into or out of the Building without Landlord's prior written consent. If any such safe, machinery, equipment, freight, bulky matter or fixtures requires special handling, Tenant agrees that any disassembly, packaging and handling of the same shall comply with applicable laws and regulations. The moving of any safe, heavy machinery, heavy equipment, freight, bulky matter or fixtures into or out of the Building shall be at the sole risk and hazard of Tenant, and Tenant shall exonerate, indemnify and save Landlord harmless against and from any liability, loss, injury, damage, claim or suit resulting directly or indirectly from such moving, including without limitation, relocation costs and expenses of tenants in the Building, if Landlord determines in its sole discretion that such relocation is necessary.

7. Lettering on doors, tablets and building directory shall be subject to the approval of the Landlord; no lettering shall be allowed on outside windows. Directories will be placed by Landlord, in conspicuous places in the building. No other directories shall be permitted unless previously consented by Landlord in writing.

8. No sign, poster, placard, name, advertisement, or notice, visible from the exterior of the leased premises shall be inscribed, painted affixed to glass or wall, installed or otherwise displayed by any Tenant either on its Premise or any part of the Building and Project without the written consent of the Landlord.

9. No wires for electric lights, messenger service or for any other purpose shall be put in the Premises without the consent of the Landlord (such consent not to be unreasonably withheld or delayed). No Tenant shall install radio or television antenna, loudspeaker or any other device on the exterior walls or roof of the Building.

10. No curtains, draperies, blinds, shutters, shades, screens or other coverings, awnings, hangings, or decorations shall be attached to, hung, or placed in, or used in connection with any window or door of the building without the prior written consent of the Landlord (such consent not to be unreasonably withheld or delayed).

11. No animals or birds of any kind shall be kept, allowed in or about the Building or Project at any time for any reason other than those granted by law.

12. Movement in or out of the Project of furniture or office equipment that requires use of hallways, stairways, or movement through the Project entrances or lobbies shall be restricted to hours designated by Landlord.

    Please provide Avenue Management notice at least 48 hours before your move date. All freight, furniture, etc. must be received and delivered through entrances to the Building designated for such purpose unless otherwise authorized by the Landlord.

    Please refer to site plan for proper loading lock (if applicable) and elevator to be used during your move. Avenue Management will advise you of the proper loading lock and elevator to be used for all deliveries coming to your office.

13. Nothing shall be thrown from or taken in through windows, nor shall anything be left outside the Building on the windowsills of the Premises, subject to the terms and provisions of this Lease.

14. Tenants shall not loiter and/or congregate in the Building or in front of the Premises. No part of the Building or Premise or grounds shall, at any time, be used for lodging or sleeping or for any immoral or illegal purpose.

15. Subject to the Lease, the Landlord, its agents and employees shall have access at reasonable times to perform their duties in the maintenance and operation of the Project.

16. No Tenant shall use any method of heating other than that provided for in the Tenant's Lease without the consent of the Landlord.

17. Any damage caused to the Premises or Building or the Project or to any person or property herein as a result of any breach of any of the Rules and Regulations by the Tenant shall be borne by the Tenant.

18. No Tenant nor employee or invitees of any Tenant shall go upon the roof of any building at the Project at any time.

19. Landlord reserves the right to exclude or expel from the Building and Project any person who, in Landlord's judgment, is intoxicated or under the influence of liquor or drugs or who is in violation of any of the Rules and Regulations of the Building.

20. During the continuance of any invasion, mob, riot, public excitement or other circumstances rendering such action advisable in Landlord's opinion, Landlord reserves the right to prevent access to the Building by closing the doors, or otherwise, for the safety of Tenants and protection of the Building and property at the Project.

21. Tenant's agents, employees, servants, patrons, customers, invitees and visitors shall not solicit business in the Building's parking facilities or Common Areas not shall tenant distribute any handbills or other advertising matter in the Premise or parking areas.

22. Building security is a cooperative venture. Tenants must assume full responsibility for protecting their Premise from theft and pilferage by keeping doors locked as well as securing other means of entry into the Premises.

23. Tenant shall make reasonable efforts to conserve electricity, water, and air conditioning.

24. Tenant shall obey all parking signs and marking on the pavement. Tenant shall not park in fire lanes, within ten feet of fire hydrants, in loading zones, and shall properly park within parking space lines. Tenant shall not park any type of vehicle, whether or business or personal use, on any parking lot or parking facility of the Project overnight without prior consent of Landlord. Any vehicle(s) parked overnight for any extended period of time, shall be subject to towing at the vehicle owner's sole risk and expense.

25. Tenant shall not employ any of Landlord's employees or agents for any purpose whatsoever without the prior written consent from Landlord. Tenants are required to use Landlord's preferred vendors (cleaning, construction, and maintenance of base building systems) at all times, unless otherwise approved, in writing, by Landlord. This provision shall apply to all work performed at the Project including installations of electrical devices and attachments, and installations of any nature affecting the floors, walls, woodwork, trim, windows, ceilings, or any other physical portion of the Building. Additional services can be arranged for the Tenant by the Landlord using Landlord's preferred vendors for such services as catering, telecommunications, copy and printing services, and furniture supplies at preferred pricing.

26. The Project is a non-smoking environment. There shall be no smoking within the Building. Tenant shall utilize the smoking areas provided.

27. Landlord reserves the right to makes changes or any such other and further rules and regulations as, in its judgment, may from time to time be necessary.

SEQLL LLC

By: /s/ Daniel R. Jones
Name: Daniel R. Jones
Title: Manager

COMMONWEALTH OF MASSACHUSETTS

Middlesex, ss.

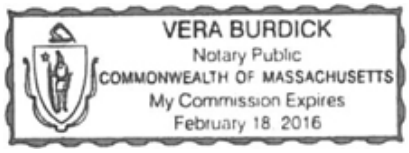
On November 25, 2014, before me, the undersigned notary public, personally appeared Daniel R. Jones, as president for SEQLL LLC, proved to me through satisfactory evidence of identification, which were [Illegible], to be the person whose name is signed on the preceding or attached documents, and acknowledged to me that he signed it voluntarily.

Vera Burdick

Notary Public

Printed Name: Vera Burdick

My Commission Expires: 2/18/16



317 New Boston St. Suite 210
Woburn, MA 01801
Phone: (617) 817-3755

To whom it may concern:
Please find attached a description of the uses of each room for Suite 223 at 317 New Boston Street, Woburn. The general use of the space is for the engineering and modification/prototyping of DNA sequencing machines. Pursuant to the Woburn Zoning Ordinances, this space can be classified as Business Use with a Light Manufacturing component. Both uses are by right less than 15,000 square feet in this IP-2 zoning district.

Room 22308 – “Engineering Storage”
This room will be used for shelving of instrument parts and miscellaneous general storage.
Room 22301 – “Engineering”
This room will be used for development, modification and assembly of DNA sequencer prototypes.
Room 22305 – “Storage / Loading”
This room will be used for storage and loading.
Room 22304 – “Lunch Room”
This room will be used partially as a break room but also for cubicles.
Room 22309 – “Office”
This room will be used as a conference room and office space.
Room 22302 – “Stor/Optics”
This room will be used for working on/assembling optical equipment.
Room 22303 – “Electric Room”
This is the tenant’s electric room with distribution panels and transformer.
Room 22307 – “Workshop”
This room will be used for modifying/prototyping parts.

Thank you for your attention to this matter.

Best Regards,
Ethan Neal, Director of Operations

/s/ Ethan Neal
2/12/15

Seqll Space

Yr	SF	$/SF	$/Yr
March 17, 2015 - March 16, 2016	6,508	8.15	53040.2
March 17, 2016 - March 16, 2017	6,508	8.5	55318
March 17, 2017 - March 16, 2018	6,508	8.95	58246.6
March 17, 2018 - March 16, 2019	6,508	9.4	61175.2
March 17, 2019 - March 16 - 2020	6,508	9.85	64103.8

St. Laurent Space

Yr	SF	$/SF	$/Yr
March 17, 2016 - March 16, 2017	4,430	9.00	39,870.00
March 17, 2017 - March 16, 2018	4,430	9.45	41,863.50
March 17, 2018 - March 16, 2019	4,430	9.90	43,857.00
March 17, 2019 - March 16 - 2020	4,430	10.35	45,850.50

Combined Spaces

Yr	SF	$/SF	$/Yr	$/Month
March 17, 2016 - March 16, 2017	10,938	8.70	95,188.00	7932.333
March 17, 2017 - March 16, 2018	10,938	9.15	100,110.10	8342.508
March 17, 2018 - March 16, 2019	10,938	9.60	105,032.20	8752.683
March 17, 2019 - March 16 - 2020	10,938	10.05	109,954.30	9162.858

Exhibit 10.6

FIRST AMENDMENT TO LEASE

THIS FIRST AMENDMENT TO LEASE ("this Amendment") is made this 1st day of April, 2016 and is by and between **JAM CAMBRIDGE VENTURES, LLC and RAM CAMBRIDGE VENTURES, LLC,** both of which are Massachusetts limited liability companies with a place of business at 237 Lexington Street, Woburn, Massachusetts 01801, ("Landlord") and **SEQLL, LLC** a Massachusetts limited liability companies with a place of business at 317 New Boston Street, Woburn, Massachusetts ("Tenant")**.**

STATEMENT OF FACTS

Landlord and Tenant are parties to a lease dated November 25, 2014 (the "Lease"), with respect to a certain portion of the building located at 317 New Boston Street, Woburn, Massachusetts 01801 (the "Premises").

Landlord and Tenant desire to modify certain terms of the Lease.

TERMS OF AMENDMENT

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, Tenant hereby agree that the Lease shall be amended and modified as follows:

1. **PREMISES**

Amend the lease by deleting the first two paragraphs of Section 2 and replacing it with the following:

A portion of the building consisting of approximately 6,508 rentable square feet ("RSF") known as Suite 230, together with a portion of the building consisting of approximately 4,430 rentable square feet ("RSF"), known as Suite 210, for a total area of approximately 10,938 rentable square feet located at 317 New Boston Street, Woburn, Massachusetts 01801, as shown on Exhibit A1 (the "Premises"), together with the right to use in common with others entitled thereto, the hallways, and stairways, necessary for access to said leased premises, and lavatories therein, if any (the "Premises"). The Premises are to be delivered in "as-is" condition as they are in on the date of this Amendment.

2. **TERM**

Amend the lease by deleting Section 3 in its entirety and replacing it with the following:

The term of this lease shall by for forty eight (48) months commencing on April 1, 2016 ("Term Commencement Date"), and terminating on March 31, 2020 ("Term Expiration Date"). In any event, the ("Rent Commencement Date") shall be the Term Commencement Date.

Tenant shall have the right to extend its tenancy for one (1) five (5) year term by providing written notice at least twelve (12) months prior to lease expiration. Base rental rate during each "Option Period" shall begin at, $10.05/RSF per year with increases annually of 3% or CPI NE (Consumer Price Index Northeast), whichever is higher.

3. RENT

Amend the lease by deleting Section 4 in its entirety and replacing it with the following:

Tenant shall commence paying utilities, Tenant's Share of Taxes and Operating Expenses (as defined below), and any other additional rents, if any, on April 1, 2016.

Tenant shall pay, without any offset or reduction, Rent to Landlord beginning on the Rent Commencement Date and Continuing through the Term Expiration Date.

Tenant shall pay, without offset or reduction, Rent to Landlord at the rate of:

Months 1-12 (April 1, 2016 – March 31, 2017), the Base Rent shall be at the rate of $8.70 per rentable square foot ("RSF") per year or $95,188.00 annually in equal monthly installments of $7,932.33 each month, payable in advance of the first day of each month, plus NNN.

Months 13-24 (April 1, 2017 – March 31, 2018), the Base rent shall be at the rate of $9.15 per rentable square foot ("RSF") or $100,110.10 annually in equal monthly installments of $8,342.50 each payable in advance by the first day of each month, plus NNN.

Months 25-36 (April 1, 2018 – March 31, 2019), the Base rent shall be at the rate of $9.60 per rentable square foot ("RSF") or $105,032.20 annually in equal monthly installments of $8,752.68 each payable in advance by the first day of each month, plus NNN.

Months 37-48 (April 1, 2019 – March 31, 2020), the Base rent shall be at the rate of $10.05 per rentable square foot ("RSF") or $109,954.30 annually in equal monthly installments of $9,162.85 each payable in advance by the first day of each month, plus NNN.

Tenant shall pay all bills for utilities furnished to the Premises.

There will be a late charge for payments made after the first (1^{st}) of the month, which charge shall be the greater of Ten percent (10%) per year or the maximum amount permitted by law. Interest charges on outstanding balances shall accrue at eighteen percent (18%) per year or the maximum amount permitted by law. Failure to pay the late charge and interest charges shall be a default under the terms of the Lease. A 7-day grace period will be allowed once in any 12-month period. Tenant acknowledges and waives any/all rights to offset or reduce payments due under this Lease.

4. SECURITY DEPOSIT

Amend the lease by deleting Section 5 in its entirety and replacing it with the following:

A Security Deposit in the amount of $14,238.92 shall be held as security for Tenant's performance of any and all of its obligations hereunder. Landlord may adjust the Security Deposit from time to time after reviewing Tenant's financial statements, which Tenant shall provide to Landlord upon request. Upon the occurrence of a default under this Lease by Tenant, Landlord may, in its sole discretion, apply the Security Deposit to cure such default and Tenant shall restore the Security Deposit to the sum of $14,238.92 (or such adjusted amount). Upon a transfer of the Property, Tenant agrees to look solely to such transferee for the return of the Security Deposit provided Landlord discloses same to such transferee prior to transfer.

Landlord and Tenant agree that Landlord currently holds an amount of $8,000 paid by Tenant to be credited towards the total Security Deposit of $14,238.92. Tenant shall pay to Landlord the remainder in the amount of $6,238.92 upon the execution of this Lease Amendment.

5. TAXES AND OPERATING EXPENSES

Amend the lease by deleting the first sentence of the fourth paragraph of Section 6 in its entirety and replacing it with the following:

"Tenant's Share" shall mean 18.2443%.

6. AS-IS

Tenant agrees that it has leased the Premises after full and complete examination of the same and in "AS-IS" condition on the date hereof, and by its execution and delivery of this Amendment, Tenant acknowledges that neither Landlord or Landlord's agents has made any representations or promises with respect to the Premises, the Building or the Project and no rights, easements or licenses are required by Tenant by implication or otherwise, except as may be set forth expressly in the Lease. The execution and delivery of this Amendment shall be conclusive evidence, as again Tenant, the Tenant accepts the Premises in "as-is" condition.

7. TENANT REPRESENTATIONS

Tenant hereby represents and certifies that the Lease is in full force and effect, that all obligations of the Landlord under the Lease as of the date hereof have been performed by Landlord except as set forth herein, and that, as of the date hereof, there exists no default by Landlord under the Lease and Tenant has no defenses, rights of offset, credits, deductions in rent or claims against Landlord of any of the agreements, terms, covenants or conditions of the Lease.

8. INDEPENDENT COVENANTS

Landlord and Tenant agree that the obligations of Tenant hereunder, including, without limitation, Tenant's obligation to pay rent and additional rents, are independent and not mutually dependent covenants and that the failure of Landlord to perform any obligation hereunder shall in no event justify or empower Tenant to withhold rent, additional rent or any other amount due to Landlord hereunder or to terminate this Lease. Tenant acknowledges that the foregoing is a material inducement to Landlord to enter into this Amendment.

9. BROKERAGE

Tenant and Landlord represent and warrant that neither has dealt with any broker in connection with the execution of this Amendment and agree to defend, indemnify and save the other party harmless from and against any and all claims for a commission arising out of this Amendment made by anyone as a result of the indemnifying party's acts.

10. TERMS

Capitalized terms not defined herein shall have the definition provided in the Lease.

11. RATIFICATION

The Lease, as amended by this Amendment, is hereby ratified and confirmed in all respects, except that this Amendment shall prevail over any other provisions of the Lease which are inconsistent with this Amendment.

12. COUNTERPARTS AND AUTHORITY

This Amendment may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one and the same document. Landlord and Tenant each warrant to the other that the person or persons executing this Amendment on its behalf has or have the authority to do so and that such execution has fully obligated and bound such party to all terms and provisions of this Amendment.

EXECUTED as an instrument under seal as of this 23rd of March, 2016.

LANDLORD

/s/ Joseph A. Martignetti

Joseph A. Martignetti, Manager

JAM CAMBRIDGE VENTURES, LLC

/s/ Ronald A. Martignetti

Name: Ronald A. Martignetti, Manager

RAM CAMBRIDGE VENTURES, LLC

TENANT

/s/ Elizabeth Reczek

NAME: Elizabeth Reczek

TITLE: CEO

SEQLL, LLC

Exhibit 10.7

AMENDED AND RESTATED

RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT

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Schedule A - Investors
Schedule B - Key Holders

AMENDED AND RESTATED
RIGHT OF FIRST REFUSAL
AND CO-SALE AGREEMENT

THIS AMENDED AND RESTATED RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT (this "**Agreement**"), is made as of the 19th day of February, 2016 by and among SeqLL Inc., a Delaware corporation (the "**Company**"), the Investors listed on Schedule A and the Key Holders listed on Schedule B.

WHEREAS, the Company, the Key Holders and certain of the Investors (the "**Prior Investors**") previously entered into a Right of First Refusal and Co-Sale Agreement, dated as of May 30, 2014 (the "**Prior Agreement**"), in connection with the purchase of shares of Series A-1 Preferred Stock, par value $0.00001 per share ("**Series A-1 Preferred Stock**"); and

WHEREAS, the Key Holders, the Prior Investors and the Company desire to induce certain other Investors to purchase shares of Series A-2 Preferred Stock of the Company, par value $0.00001 per share ("**Series A-2 Preferred Stock**"), pursuant to the Series A-2 Convertible Preferred Stock Purchase Agreement, dated as of the date hereof, by and among the Company and such Investors (the "**Purchase Agreement**") by amending and restating the Prior Agreement to provide the Investors with the rights and privileges as set forth herein.

NOW, THEREFORE, the Company, the Key Holders and the Investors each hereby agree as follows:

1. Definitions.

1.1 "**Affiliate**" means, with respect to any specified Investor, any other Investor who directly or indirectly, controls, is controlled by or is under common control with such Investor, including, without limitation, any general partner, managing member, officer or director of such Investor, or any venture capital fund now or hereafter existing which is controlled by one or more general partners or managing members of, or shares the same management company with, such Investor.

1.2 "**Capital Stock**" means (a) shares of Common Stock and Preferred Stock (whether now outstanding or hereafter issued in any context), (b) shares of Common Stock issued or issuable upon conversion of Preferred Stock, and (c) shares of Common Stock issued or issuable upon exercise or conversion, as applicable, of stock options, warrants or other convertible securities of the Company, in each case now owned or subsequently acquired by any Key Holder, any Investor, or their respective successors or permitted transferees or assigns. For purposes of the number of shares of Capital Stock held by an Investor or Key Holder (or any other calculation based thereon), all shares of Preferred Stock shall be deemed to have been converted into Common Stock at the then-applicable conversion ratio.

1.3 "**Change of Control**" means a transaction or series of related transactions in which a person, or a group of related persons, acquires from stockholders of the Company shares representing more than fifty percent (50%) of the outstanding voting power of the Company.

1.4 "**Common Stock**" means shares of Common Stock of the Company, $0.00001 par value per share.

1.5 "**Company Notice**" means written notice from the Company notifying the selling Key Holders that the Company intends to exercise its Right of First Refusal as to some or all of the Transfer Stock with respect to any Proposed Key Holder Transfer.

1.6 "**Investor Notice**" means written notice from an Investor notifying the Company and the selling Key Holder that such Investor intends to exercise its Secondary Refusal Right as to a portion of the Transfer Stock with respect to any Proposed Key Holder Transfer.

1.7 "**Investors**" means the persons named on Schedule A hereto, each person to whom the rights of an Investor are assigned pursuant to Subsection 6.9, each person who hereafter becomes a signatory to this Agreement pursuant to Subsection 6.11 and any one of them, as the context may require; provided, however, that any such person shall cease to be considered an Investor for purposes of this Agreement at any time such person and his, her or its Affiliates collectively hold fewer than 156,250 shares of Capital Stock (as adjusted for any stock combination, stock split, stock dividend, recapitalization or other similar transaction).

1.8 "**Key Holders**" means the persons named on Schedule B hereto, each person to whom the rights of a Key Holder are assigned pursuant to Subsection 3.1, each person who hereafter becomes a signatory to this Agreement pursuant to Subsection 6.9 and any one of them, as the context may require.

1.9 "**Preferred Stock**" means collectively, all shares of Series A-1 Preferred Stock and Series A-2 Preferred Stock.

1.10 "**Proposed Key Holder Transfer**" means any assignment, sale, offer to sell, pledge, mortgage, hypothecation, encumbrance, disposition of or any other like transfer or encumbering of any Transfer Stock (or any interest therein) proposed by any of the Key Holders.

1.11 "**Proposed Transfer Notice**" means written notice from a Key Holder setting forth the terms and conditions of a Proposed Key Holder Transfer.

1.12 "**Prospective Transferee**" means any person to whom a Key Holder proposes to make a Proposed Key Holder Transfer.

1.13 "**Restated Certificate**" means the Company's Amended and Restated Certificate of Incorporation, as amended from time to time.

1.14 "**Right of Co-Sale**" means the right, but not an obligation, of an Investor to participate in a Proposed Key Holder Transfer on the terms and conditions specified in the Proposed Transfer Notice.

1.15 "**Right of First Refusal**" means the right, but not an obligation, of the Company, or its permitted transferees or assigns, to purchase some or all of the Transfer Stock with respect to a Proposed Key Holder Transfer, on the terms and conditions specified in the Proposed Transfer Notice.

1.16 "**Secondary Notice**" means written notice from the Company notifying the Investors and the selling Key Holder that the Company does not intend to exercise its Right of First Refusal as to all shares of Transfer Stock with respect to any Proposed Key Holder Transfer.

1.17 "**Secondary Refusal Right**" means the right, but not an obligation, of each Investor to purchase up to its pro rata portion (based upon the total number of shares of Capital Stock then held by all Investors) of any Transfer Stock not purchased pursuant to the Right of First Refusal, on the terms and conditions specified in the Proposed Transfer Notice.

1.18 "**Transfer Stock**" means shares of Capital Stock owned by a Key Holder, or issued to a Key Holder after the date hereof (including, without limitation, in connection with any stock split, stock dividend, recapitalization, reorganization, or the like), but does not include any shares of Preferred Stock or of Common Stock that are issued or issuable upon conversion of Preferred Stock.

1.19 "**Undersubscription Notice**" means written notice from an Investor notifying the Company and the selling Key Holder that such Investor intends to exercise its option to purchase all or any portion of the Transfer Stock not purchased pursuant to the Right of First Refusal or the Secondary Refusal Right.

2. Agreement Among the Company, the Investors and the Key Holders.

2.1 Right of First Refusal.

(a) Grant. Subject to the terms of Section 3 below, each Key Holder hereby unconditionally and irrevocably grants to the Company a Right of First Refusal to purchase all or any portion of Transfer Stock that such Key Holder may propose to transfer in a Proposed Key Holder Transfer, at the same price and on the same terms and conditions as those offered to the Prospective Transferee.

(b) Notice. Each Key Holder proposing to make a Proposed Key Holder Transfer must deliver a Proposed Transfer Notice to the Company and each Investor not later than forty-five (45) days prior to the consummation of such Proposed Key Holder Transfer. Such Proposed Transfer Notice shall contain the material terms and conditions (including price and form of consideration) of the Proposed Key Holder Transfer, the identity of the Prospective Transferee and the intended date of the Proposed Key Holder Transfer. To exercise its Right of First Refusal under this Section 2, the Company must deliver a Company Notice to the selling Key Holder within fifteen (15) days after delivery of the Proposed Transfer Notice. In the event of a conflict between this Agreement and any other agreement that may have been entered into by a Key Holder with the Company that contains a preexisting right of first refusal, the Company and the Key Holder acknowledge and agree that the terms of this Agreement shall control and the preexisting right of first refusal shall be deemed satisfied by compliance with Subsection 2.1(a) and this Subsection 2.1(b). In the event of a conflict between this Agreement and the Company's Bylaws containing a preexisting right of first refusal, the terms of the Bylaws will control and compliance with the Bylaws shall be deemed compliance with this Subsection 2.1(a) and (b) in full.

(c) Grant of Secondary Refusal Right to Investors. Subject to the terms of Section 3 below, each Key Holder hereby unconditionally and irrevocably grants to the Investors a Secondary Refusal Right to purchase all or any portion of the Transfer Stock not purchased by the Company pursuant to the Right of First Refusal, as provided in this Subsection 2.1(c). If the Company does not intend to exercise its Right of First Refusal with respect to all Transfer Stock subject to a Proposed Key Holder Transfer, the Company must deliver a Secondary Notice to the selling Key Holder and to each Investor to that effect no later than fifteen (15) days after the selling Key Holder delivers the Proposed Transfer Notice to the Company. To exercise its Secondary Refusal Right, an Investor must deliver an Investor Notice to the selling Key Holder and the Company within ten (10) days after the Company's deadline for its delivery of the Secondary Notice as provided in the preceding sentence.

(d) Undersubscription of Transfer Stock. If options to purchase have been exercised by the Company and the Investors with respect to some but not all of the Transfer Stock by the end of the ten (10) day period specified in the last sentence of Subsection 2.1(c) (the "**Investor Notice Period**"), then the Company shall, immediately after the expiration of the Investor Notice Period, send written notice (the "**Company Undersubscription Notice**") to those Investors who fully exercised their Secondary Refusal Right within the Investor Notice Period (the "**Exercising Investors**"). Each Exercising Investor shall, subject to the provisions of this Subsection 2.1(d), have an additional option to purchase all or any part of the balance of any such remaining unsubscribed shares of Transfer Stock on the terms and conditions set forth in the Proposed Transfer Notice. To exercise such option, an Exercising Investor must deliver an Undersubscription Notice to the selling Key Holder and the Company within ten (10) days after the expiration of the Investor Notice Period. In the event there are two (2) or more such Exercising Investors that choose to exercise the last-mentioned option for a total number of remaining shares in excess of the number available, the remaining shares available for purchase under this Subsection 2.1(d) shall be allocated to such Exercising Investors pro rata based on the number of shares of Transfer Stock such Exercising Investors have elected to purchase pursuant to the Secondary Refusal Right (without giving effect to any shares of Transfer Stock that any such Exercising Investor has elected to purchase pursuant to the Company Undersubscription Notice). If the options to purchase the remaining shares are exercised in full by the Exercising Investors, the Company shall immediately notify all of the Exercising Investors and the selling Key Holder of that fact.

(e) Forfeiture of Rights. Notwithstanding the foregoing, if the total number of shares of Transfer Stock that the Company and the Investors have agreed to purchase in the Company Notice, Investor Notices and Undersubscription Notices is less than the total number of shares of Transfer Stock, then the Company and the Investors shall be deemed to have forfeited any right to purchase such Transfer Stock, and the selling Key Holder shall be free to sell all, but not less than all, of the Transfer Stock to the Prospective Transferee on terms and conditions substantially similar to (and in no event more favorable than) the terms and conditions set forth in the Proposed Transfer Notice, it being understood and agreed that (i) any such sale or transfer shall be subject to the other terms and restrictions of this Agreement, including, without limitation, the terms and restrictions set forth in Subsections 2.2 and 6.9(b); (ii) any future Proposed Key Holder Transfer shall remain subject to the terms and conditions of this Agreement, including this Section 2; and (iii) such sale shall be consummated within forty-five (45) days after receipt of the Proposed Transfer Notice by the Company and, if such sale is not consummated within such forty-five (45) day period, such sale shall again become subject to the Right of First Refusal and Secondary Refusal Right on the terms set forth herein.

(f) Consideration; Closing. If the consideration proposed to be paid for the Transfer Stock is in property, services or other non-cash consideration, the fair market value of the consideration shall be as determined in good faith by the Company's Board of Directors and as set forth in the Company Notice. If the Company or any Investor cannot for any reason pay for the Transfer Stock in the same form of non-cash consideration, the Company or such Investor may pay the cash value equivalent thereof, as determined in good faith by the Board of Directors and as set forth in the Company Notice. The closing of the purchase of Transfer Stock by the Company and the Investors shall take place, and all payments from the Company and the Investors shall have been delivered to the selling Key Holder, by the later of (i) the date specified in the Proposed Transfer Notice as the intended date of the Proposed Key Holder Transfer; and (ii) forty-five (45) days after delivery of the Proposed Transfer Notice.

2.2 Right of Co-Sale.

(a) Exercise of Right. If any Transfer Stock subject to a Proposed Key Holder Transfer is not purchased pursuant to Subsection 2.1 above and thereafter is to be sold to a Prospective Transferee, each respective Investor may elect to exercise its Right of Co-Sale and participate on a pro rata basis in the Proposed Key Holder Transfer as set forth in Subsection 2.2(b) below and, subject to Subsection 2.2(d), otherwise on the same terms and conditions specified in the Proposed Transfer Notice. Each Investor who desires to exercise its Right of Co-Sale (each, a "**Participating Investor**") must give the selling Key Holder written notice to that effect within fifteen (15) days after the deadline for delivery of the Secondary Notice described above, and upon giving such notice such Participating Investor shall be deemed to have effectively exercised the Right of Co-Sale.

(b) Shares Includable. Each Participating Investor may include in the Proposed Key Holder Transfer all or any part of such Participating Investor's Capital Stock equal to the product obtained by multiplying (i) the aggregate number of shares of Transfer Stock subject to the Proposed Key Holder Transfer (excluding shares purchased by the Company or the Participating Investors pursuant to the Right of First Refusal or the Secondary Refusal Right) by (ii) a fraction, the numerator of which is the number of shares of Capital Stock owned by such Participating Investor immediately before consummation of the Proposed Key Holder Transfer (including any shares that such Investor has agreed to purchase pursuant to the Secondary Refusal Right) and the denominator of which is the total number of shares of Capital Stock owned, in the aggregate, by all Participating Investors immediately prior to the consummation of the Proposed Key Holder Transfer (including any shares that all Participating Investors have collectively agreed to purchase pursuant to the Secondary Refusal Right), plus the number of shares of Transfer Stock held by the selling Key Holder.

(c) Purchase and Sale Agreement. The Participating Investors and the selling Key Holder agree that the terms and conditions of any Proposed Key Holder Transfer in accordance with Subsection 2.2 will be memorialized in, and governed by, a written purchase and sale agreement with the Prospective Transferee (the "**Purchase and Sale Agreement**") with customary terms and provisions for such a transaction, and the Participating Investors and the selling Key Holder further covenant and agree to enter into such Purchase and Sale Agreement as a condition precedent to any sale or other transfer in accordance with this Subsection 2.2.

(d) Allocation of Consideration.

(i) Subject to Subsection 2.2(d)(ii), the aggregate consideration payable to the Participating Investors and the selling Key Holder shall be allocated based on the number of shares of Capital Stock sold to the Prospective Transferee by each Participating Investor and the selling Key Holder as provided in Subsection 2.2(b), provided that if a Participating Investor wishes to sell Preferred Stock, the price set forth in the Proposed Transfer Notice shall be appropriately adjusted based on the conversion ratio of the Preferred Stock into Common Stock.

(ii) In the event that the Proposed Key Holder Transfer constitutes a Change of Control, the terms of the Purchase and Sale Agreement shall provide that the aggregate consideration from such transfer shall be allocated to the Participating Investors and the selling Key Holder in accordance with Sections 2.1 and 2.2 of Article IV(B) of the Restated Certificate as if (A) such transfer were a Deemed Liquidation Event (as defined in the Restated Certificate), and (B) the Capital Stock sold in accordance with the Purchase and Sale Agreement were the only Capital Stock outstanding.

(e) Purchase by Selling Key Holder; Deliveries. Notwithstanding Subsection 2.2(c) above, if any Prospective Transferee or Transferees refuse(s) to purchase securities subject to the Right of Co-Sale from any Participating Investor or Investors or upon the failure to negotiate a Purchase and Sale Agreement reasonably satisfactory to the Participating Investors, no Key Holder may sell any Transfer Stock to such Prospective Transferee or Transferees unless and until, simultaneously with such sale, such Key Holder purchases all securities subject to the Right of Co-Sale from such Participating Investor or Investors on the same terms and conditions (including the proposed purchase price) as set forth in the Proposed Transfer Notice and as provided in Subsection 2.2(d)(i); provided, however, if such sale constitutes a Change of Control, the portion of the aggregate consideration paid by the selling Key Holder to such Participating Investor or Investors shall be made in accordance with the first sentence of Subsection 2.2(d)(ii). In connection with such purchase by the selling Key Holder, such Participating Investor or Investors shall deliver to the selling Key Holder any stock certificate or certificates, properly endorsed for transfer, representing the Capital Stock being purchased by the selling Key Holder (or request that the Company effect such transfer in the name of the selling Key Holder). Any such shares transferred to the selling Key Holder will be transferred to the Prospective Transferee against payment therefor in consummation of the sale of the Transfer Stock pursuant to the terms and conditions specified in the Proposed Transfer Notice, and the selling Key Holder shall concurrently therewith remit or direct payment to each such Participating Investor the portion of the aggregate consideration to which each such Participating Investor is entitled by reason of its participation in such sale as provided in this Subsection 2.2(e).

(f) Additional Compliance. If any Proposed Key Holder Transfer is not consummated within forty-five (45) days after receipt of the Proposed Transfer Notice by the Company, the Key Holders proposing the Proposed Key Holder Transfer may not sell any Transfer Stock unless they first comply in full with each provision of this Section 2. The exercise or election not to exercise any right by any Investor hereunder shall not adversely affect its right to participate in any other sales of Transfer Stock subject to this Subsection 2.2.

2.3 Effect of Failure to Comply.

(a) Transfer Void; Equitable Relief. Any Proposed Key Holder Transfer not made in compliance with the requirements of this Agreement shall be null and void ab initio, shall not be recorded on the books of the Company or its transfer agent and shall not be recognized by the Company. Each party hereto acknowledges and agrees that any breach of this Agreement would result in substantial harm to the other parties hereto for which monetary damages alone could not adequately compensate. Therefore, the parties hereto unconditionally and irrevocably agree that any non-breaching party hereto shall be entitled to seek protective orders, injunctive relief and other remedies available at law or in equity (including, without limitation, seeking specific performance or the rescission of purchases, sales and other transfers of Transfer Stock not made in strict compliance with this Agreement).

(b) Violation of First Refusal Right. If any Key Holder becomes obligated to sell any Transfer Stock to the Company or any Investor under this Agreement and fails to deliver such Transfer Stock in accordance with the terms of this Agreement, the Company and/or such Investor may, at its option, in addition to all other remedies it may have, send to such Key Holder the purchase price for such Transfer Stock as is herein specified and transfer to the name of the Company or such Investor (or request that the Company effect such transfer in the name of an Investor) on the Company's books any certificates, instruments, or book entry representing the Transfer Stock to be sold.

(c) Violation of Co-Sale Right. If any Key Holder purports to sell any Transfer Stock in contravention of the Right of Co-Sale (a "**Prohibited Transfer**"), each Investor who desires to exercise its Right of Co-Sale under Subsection 2.2 may, in addition to such remedies as may be available by law, in equity or hereunder, require such Key Holder to purchase from such Investor the type and number of shares of Capital Stock that such Investor would have been entitled to sell to the Prospective Transferee had the Prohibited Transfer been effected in compliance with the terms of Subsection 2.2. The sale will be made on the same terms, including, without limitation, as provided in Subsection 2.2(d)(i) and the first sentence of Subsection 2.2(d)(ii), as applicable, and subject to the same conditions as would have applied had the Key Holder not made the Prohibited Transfer, except that the sale (including, without limitation, the delivery of the purchase price) must be made within ninety (90) days after the Investor learns of the Prohibited Transfer, as opposed to the timeframe proscribed in Subsection 2.2. Such Key Holder shall also reimburse each Investor for any and all reasonable and documented out-of-pocket fees and expenses, including reasonable legal fees and expenses, incurred pursuant to the exercise or the attempted exercise of the Investor's rights under Subsection 2.2.

3. Exempt Transfers.

3.1 Exempted Transfers. Notwithstanding the foregoing or anything to the contrary herein, the provisions of Subsections 2.1 and 2.2 shall not apply (a) in the case of a Key Holder that is an entity, upon a transfer by such Key Holder to its stockholders, members, partners or other equity holders, (b) to a repurchase of Transfer Stock from a Key Holder by the Company at a price no greater than that originally paid by such Key Holder for such Transfer Stock and pursuant to an agreement containing vesting and/or repurchase provisions approved by a majority of the Board of Directors, (c) to a pledge of Transfer Stock that creates a mere security interest in the pledged Transfer Stock, provided that the pledgee thereof agrees in writing in advance to be bound by and comply with all applicable provisions of this Agreement to the same extent as if it were the Key Holder making such pledge, or (d) in the case of a Key Holder that is a natural person, upon a transfer of Transfer Stock by such Key Holder made for bona fide estate planning purposes, either during his or her lifetime or on death by will or intestacy to his or her spouse, child (natural or adopted), or any other direct lineal descendant of such Key Holder (or his or her spouse) (all of the foregoing collectively referred to as "family members"), or any other person approved by unanimous consent of the Board of Directors of the Company, or any custodian or trustee of any trust, partnership or limited liability company for the benefit of, or the ownership interests of which are owned wholly by such Key Holder or any such family members; or (e) to the sale by the Key Holder of up to 10% of the Transfer Stock held by such Key Holder as of the date that such Key Holder first became party to this Agreement; provided that in the case of clause(s) (a), (c), (d) or (e), the Key Holder shall deliver prior written notice to the Investors of such pledge, gift or transfer and such shares of Transfer Stock shall at all times remain subject to the terms and restrictions set forth in this Agreement and such transferee shall, as a condition to such issuance, deliver a counterpart signature page to this Agreement as confirmation that such transferee shall be bound by all the terms and conditions of this Agreement as a Key Holder (but only with respect to the securities so transferred to the transferee), including the obligations of a Key Holder with respect to Proposed Key Holder Transfers of such Transfer Stock pursuant to Section 2; and provided further in the case of any transfer pursuant to clause (a) or (d) above, that such transfer is made pursuant to a transaction in which there is no consideration actually paid for such transfer.

3.2 Exempted Offerings. Notwithstanding the foregoing or anything to the contrary herein, the provisions of Section 2 shall not apply to the sale of any Transfer Stock (a) to the public in an offering pursuant to an effective registration statement under the Securities Act of 1933, as amended (a "**Public Offering**"); or (b) pursuant to a Deemed Liquidation Event (as defined in the Company's Certificate of Incorporation).

3.3 Prohibited Transferees. Notwithstanding the foregoing, no Key Holder shall transfer any Transfer Stock to (a) any entity which, in the determination of the Company's Board of Directors, directly or indirectly competes with the Company; or (b) any customer, distributor or supplier of the Company, if the Company's Board of Directors should determine that such transfer would result in such customer, distributor or supplier receiving information that would place the Company at a competitive disadvantage with respect to such customer, distributor or supplier.

4. Legend. Each certificate, instrument, or book entry representing shares of Transfer Stock held by the Key Holders or issued to any permitted transferee in connection with a transfer permitted by Subsection 3.1 hereof shall be notated with the following legend:

THE SALE, PLEDGE, HYPOTHECATION, OR TRANSFER OF THE SECURITIES REPRESENTED HEREBY IS SUBJECT TO, AND IN CERTAIN CASES PROHIBITED BY, THE TERMS AND CONDITIONS OF A CERTAIN AMENDED AND RESTATED RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT BY AND AMONG THE STOCKHOLDER, THE CORPORATION AND CERTAIN OTHER HOLDERS OF STOCK OF THE CORPORATION. COPIES OF SUCH AGREEMENT MAY BE OBTAINED UPON WRITTEN REQUEST TO THE SECRETARY OF THE CORPORATION.

Each Key Holder agrees that the Company may instruct its transfer agent to impose transfer restrictions on the shares notated with the legend referred to in this Section 4 above to enforce the provisions of this Agreement, and the Company agrees to promptly do so. The legend shall be removed upon termination of this Agreement at the request of the holder.

5. Lock-Up.

5.1 Agreement to Lock-Up. Each Key Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the Company's initial public offering (the "**IPO**") and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (l80) days), or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports; and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), (a) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Capital Stock held immediately prior to the effectiveness of the registration statement for the IPO; or (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the Capital Stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of Capital Stock or other securities, in cash or otherwise. The foregoing provisions of this Section 5 shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, and shall only be applicable to the Key Holders if all officers, directors and holders of more than one percent (1%) of the outstanding Common Stock (after giving effect to the conversion into Common Stock of all outstanding Preferred Stock) enter into similar agreements. The underwriters in connection with the IPO are intended third-party beneficiaries of this Section 5 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Key Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in the IPO that are consistent with this Section 5 or that are necessary to give further effect thereto.

5.2 Stop Transfer Instructions. In order to enforce the foregoing covenant, the Company may impose stop-transfer instructions with respect to the shares of Capital Stock of each Key Holder (and transferees and assignees thereof) until the end of such restricted period.

6. Miscellaneous.

6.1 Term. This Agreement shall automatically terminate upon the earlier of (a) immediately prior to the consummation of the Company's IPO; and (b) the consummation of a Deemed Liquidation Event (as defined in the Restated Certificate).

6.2 Stock Split. All references to numbers of shares in this Agreement shall be appropriately adjusted to reflect any stock dividend, split, combination or other recapitalization affecting the Capital Stock occurring after the date of this Agreement.

6.3 Ownership. Each Key Holder represents and warrants that such Key Holder is the sole legal and beneficial owner of the shares of Transfer Stock subject to this Agreement and that no other person or entity has any interest in such shares (other than a community property interest as to which the holder thereof has acknowledged and agreed in writing to the restrictions and obligations hereunder).

6.4 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of the Commonwealth of Massachusetts and to the jurisdiction of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Massachusetts or the United States District Court for the District of Massachusetts, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

The prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled. Each of the parties to this Agreement consents to personal jurisdiction for any equitable action sought in the U.S. District Court for the District of Massachusetts or any court of the Commonwealth of Massachusetts having subject matter jurisdiction.

6.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or (a) personal delivery to the party to be notified, (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on Schedule A or Schedule B hereof, as the case may be, or to such email address, facsimile number or address as subsequently modified by written notice given in accordance with this Section 6.5. If notice is given to the Company, it shall be sent to SeqLL Inc., 866 E Fifth Street, Unit 2, Boston, MA 02127, Attn: Daniel R. Jones; and a copy (which shall not constitute notice) shall also be sent to Foley & Lardner LLP, 975 Page Mill Rd., Palo Alto, CA 94304, Attn: E. Thom Rumberger Jr., Esq.

6.6 Entire Agreement. This Agreement (including, the Exhibits and Schedules hereto) constitutes the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties are expressly canceled.

6.7 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.8 Amendment; Waiver and Termination. This Agreement may be amended, modified or terminated (other than pursuant to Section 6.1 above) and the observance of any term hereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only by a written instrument executed by (a) the Company, (b) the Key Holders holding a majority of the shares of Transfer Stock then held by all of the Key Holders who are then providing services to the Company as officers, employees or consultants, and (c) the holders of a majority of the shares of Common Stock issued or issuable upon conversion of the then outstanding shares of Preferred Stock held by the Investors (voting as a single class and on an as-converted basis). Any amendment, modification, termination or waiver so effected shall be binding upon the Company, the Investors, the Key Holders and all of their respective successors and permitted assigns whether or not such party, assignee or other shareholder entered into or approved such amendment, modification, termination or waiver. Notwithstanding the foregoing, (i) this Agreement may not be amended, modified or terminated and the observance of any term hereunder may not be waived with respect to any Investor or Key Holder without the written consent of such Investor or Key Holder unless such amendment, modification, termination or waiver applies to all Investors and Key Holders, respectively, in the same fashion, and (ii) the consent of the Key Holders shall not be required for any amendment, modification, termination or waiver if such amendment, modification, termination or waiver does not apply to the Key Holders, and (iii) Schedule A hereto may be amended by the Company from time to time in accordance with the Purchase Agreement to add information regarding Additional Purchasers (as defined in the Purchase Agreement) without the consent of the other parties hereto. The Company shall give prompt written notice of any amendment, modification or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, modification, termination or waiver. No waivers of or exceptions to any term, condition or provision of this Agreement, in any one or more instances, shall be deemed to be, or construed as, a further or continuing waiver of any such term, condition or provision.

6.9 Assignment of Rights.

(a) The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and permitted assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assigns any rights, remedies, obligations, or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

(b) Any successor or permitted assignee of any Key Holder, including any Prospective Transferee who purchases shares of Transfer Stock in accordance with the terms hereof, shall deliver to the Company and the Investors, as a condition to any transfer or assignment, a counterpart signature page hereto pursuant to which such successor or permitted assignee shall confirm their agreement to be subject to and bound by all of the provisions set forth in this Agreement that were applicable to the predecessor or assignor of such successor or permitted assignee.

(c) The rights of the Investors hereunder are not assignable without the Company's written consent (which shall not be unreasonably withheld, delayed or conditioned), except (i) by an Investor to any Affiliate, or (ii) to an assignee or transferee who acquires at least 156,250 shares of Capital Stock (as adjusted for any stock combination, stock split, stock dividend, recapitalization or other similar transaction), it being acknowledged and agreed that any such assignment, including an assignment contemplated by the preceding clauses (i) or (ii) shall be subject to and conditioned upon any such assignee's delivery to the Company and the other Investors of a counterpart signature page hereto pursuant to which such assignee shall confirm their agreement to be subject to and bound by all of the provisions set forth in this Agreement that were applicable to the assignor of such assignee.

(d) Except in connection with an assignment by the Company by operation of law to the acquirer of the Company, the rights and obligations of the Company hereunder may not be assigned under any circumstances.

6.10 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

6.11 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of the Company's Series A-2 Preferred Stock after the date hereof, any purchaser of such shares of Series A-2 Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and thereafter shall be deemed an "Investor" for all purposes hereunder.

6.12 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

6.13 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.14 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

6.15 Aggregation of Stock. All shares of Capital Stock held or acquired by Affiliated entities or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.16 Specific Performance. In addition to any and all other remedies that may be available at law in the event of any breach of this Agreement, each Investor shall be entitled to specific performance of the agreements and obligations of the Company and the Key Holders hereunder and to such other injunction or other equitable relief as may be granted by a court of competent jurisdiction.

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IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

SEQLL INC.

By: /s/ Elizabeth Reczek
Name: Elizabeth Reczek

Title: Chief Executive Officer

KEY HOLDERS:

DANIEL JONES

Signature: /s/ Daniel Jones
Name: Daniel Jones

TISHA JEPSON

Signature: /s/ Tisha Jepson
Name: Tisha Jepson

WENDY ST. LAURENT

Signature: /s/ Wendy St. Laurent
Name: Wendy St. Laurent

PETER BRENNAN

Signature: /s/ Peter Brennan
Name: Peter Brennan

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

GENOMIC DIAGNOSTIC TECHNOLOGIES, INC.

By: /s/ William St. Laurent , PRES.

Name:

William St. Laurent, President

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

/s/ Eleanor St. Laurent

Eleanor St. Laurent

Address: 120 NE 136th Ave., Suite 200,
Vancouver, WA 98684

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

/s/ Georges C. St. Laurent

Georges C. St. Laurent, III
Address: 375 Commerce Way, Suite 101,
Longwood, FL 32750

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

/s/ Georges C. St. Laurent, Jr.

Georges C. St. Laurent, Jr.

Address: 120 NE 136th Ave., Suite 200,
Vancouver, WA 98684

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

FLORENCE H JONES REV TRUST U/A 07/22/03

By: /s/ Florence H. Jones

Name: Florence H. Jones

Title: Trustee

By: /s/ Robert P. Jones

Name: Robert P. Jones

Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

/s/ Tisha Jepson

Tisha Jepson
Address: 3732 Manor Road, #4,
Chevy Chase, MD 20815

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

PROVIDENT TRUST, LLC FBO: TISHA JEPSON ROTH IRA

By: /s/ Theresa Fette

Name: Theresa Fette

Title: CEO

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

THE JAMES P MISCOLL BYPASS TRUST

By:/s/ Douglas Miscoll

Name: Douglas Miscoll

Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:
/s/ Bruce Block

Bruce T. Block
Address: 9300 North Regent Road
Bayside, WI 53217

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

GEORGES C. ST. LAURENT, III DESCENDANTS' TRUST

By: /s/ William St. Laurent

Name: William St. Laurent

Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Amended and Restated Right of First Refusal and Co-Sale Agreement as of the date first written above.

INVESTOR:

WILLIAM C. ST. LAURENT DESCENDANTS' TRUST

By: /s/ William St. Laurent

Name: William St. Laurent

Title: Trustee

SCHEDULE A

INVESTORS

Name and Address	Number and Class of Shares Held
Genomic Diagnostic Technologies, Inc. *375 Commerce Way* *Suite 101* *Longwood, Florida 32750*	1,562,500 Series A-1
Eleanor St. Laurent *120 NE 136th Ave.* *Suite 200* *Vancouver, WA 98684*	312,500 Series A-1
Georges C. St. Laurent, Jr. *120 NE 136th Ave.* *Suite 200* *Vancouver, WA 98684*	781,250 Series A-1
Georges C. St. Laurent, III *375 Commerce Way* *Suite 101* *Longwood, FL 32750*	31,250 Series A-1*
FLORENCE H JONES REV TRUST U/A 07/22/03 *104 Pelczar Road* *Dracut, MA 01826*	62,500 Series A-1
Tisha Jepson *3732 Manor Road, #4* *Chevy Chase, MD 20815*	78,125 Series A-1
PROVIDENT TRUST, LLC FBO: TISHA JEPSON ROTH IRA *880 Sunset Road* *Suite #250* *Las Vegas, Nevada 89148*	156,250 Series A-1
THE JAMES P MISCOLL BYPASS TRUST *146 W. Bellevue Avenue* *San Mateo, CA 94402*	78,125 Series A-1
Bruce T. Block *9300 North Regent Road* *Bayside, WI 53217*	62,500 Series A-1
Georges C. St. Laurent, III Descendants' Trust *120 NE 136th Ave, Suite 200* *Vancouver, WA 98684*	297,619 Series A-2
William C. St. Laurent Descendants' Trust *120 NE 136th Ave, Suite 200* *Vancouver, WA 98684*	297,619 Series A-2

* Shares currently held by the estate of Georges C. St. Laurent III, but such shares are to be transferred to Lucas Campbell and William Campbell upon completion of the estate’s probate process.

SCHEDULE B

KEY HOLDERS

Name and Address	Number of Shares Held
Daniel Jones 866 East 5th Street Unit 2 Boston, MA 02127	4,491,000
Wendy St. Laurent. 841 Mayfield Ave. Winter Park, FL 32789	2,198,250
Tisha Jepson 3732 Manor Road, #4 Chevy Chase, MD 20815	90,000
Ethan Neal 3732 Manor Road, #4 Chevy Chase, MD 20815	90,000
Peter Brennan	45,000
Georges C. St. Laurent, III 375 Commerce Way Suite 101 Longwood, FL 32750	2,198,250*

* Shares currently held by the estate of Georges C. St. Laurent III, but such shares are to be transferred to Lucas Campbell and William Campbell upon completion of the estate's probate process.

Exhibit 10.8

EXCHANGE AGREEMENT

This Exchange Agreement (this "Agreement") is entered effective as of the 30th day of September, 2018 (the "Exchange Date"), by and between SEQLL INC., a Delaware Corporation (the "Company") and ST. LAURENT INVESTMENTS, LLC (the "Exchanging Holder").

RECITALS:

WHEREAS, the Exchanging Holder is a payee under certain promissory notes issued by the Company set forth in the attached Schedule 1 (the "Notes");

WHEREAS, the Company and the Exchanging Holder have agreed to exchange the outstanding principal amount of the Notes for the Company's Series A-2 Preferred Stock ("A-2 Preferred Stock") pursuant to the terms and subject to the conditions set forth herein (the "Note Exchange");

WHEREAS, in connection with the Note Exchange, the Company shall issue a new promissory note to the Exchanging Holder for the accrued interest under the Notes as of the Exchange Date in the amount of $360,709.68 (the "New Note");

WHEREAS, in connection with the Note Exchange, the Company shall issue a warrant to the Exchanging Holder, in lieu of the warrants associated with the Notes and as a replacement of the warrants thereof, equal to 6% of the principal amount of the Notes as of the Exchange Date exercisable at $1.68 per share, subject to all regulations and requirements of applicable jurisdictions (the "Warrant I");

WHEREAS, the Company and the Exchanging Holder desire to effect the above-described Note Exchange and issuance of the New Note (the "Exchange") on the terms and conditions set forth herein; and

WHEREAS, as an inducement to the Exchanging Holder to enter into the Exchange, the Company has agreed to issue the Exchanging Holder a warrant for 900,000 shares of the Company's common stock pursuant to the terms and subject to the conditions set forth herein (the "Warrant II");

NOW, THEREFORE, in consideration of the foregoing recitals and the mutual promises, representations, warranties, and covenants hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Note Exchange. Subject to the terms and conditions set forth in this Agreement, the Company and the Exchanging Holder hereby agree that the Notes shall automatically cancel and the security interests granted thereunder, together with all other rights and obligations arising thereunder, shall be cancelled and extinguished as of the close of business on the Exchange Date. In full and complete consideration for all of the outstanding principal amount of the Notes, the Company shall issue and deliver to the Exchanging Holder, and the Exchanging Holder will receive 1,866,071 shares of A-2 Preferred Stock.

2. Subscription Documents. On or before the Exchange Date, the Exchanging Holder shall execute and deliver to the Company Series A-2 Preferred subscription documents attached hereto as Exhibit A ("Subscription Documents").

3. New Note. Subject to the terms and conditions set forth in this Agreement, the Company and the Exchanging Holder hereby agree that, on the Exchange Date, in lieu of cash payment of the accrued interest on the Notes as of the Exchange Date, the Company shall issue the New Note to the Exchanging Holder substantially in the form attached hereto as Exhibit B-1. The parties further Agree that in connection with the issuance of the New Note, the parties shall enter into a Security Agreement substantially in the form attached hereto as Exhibit B-2.

4. Warrant. The parties hereby agree that as an inducement to the Exchanging Holder to enter into the Exchange, the Company shall issue the Exchanging Holder the Warrant I and Warrant II subject to the terms and conditions set forth therein and substantially in the form attached hereto as Exhibits C-1 and C-2 respectively.

5. Representations of Exchanging Holder. The Exchanging Holder hereby represents and warrants as follows: (a) the Exchanging Holder has the authority to execute and deliver this Agreement and to fulfill the Exchanging Holder's obligations hereunder; (b) the Exchanging Holder owns the Notes free and clear of any liens, pledges, encumbrances, security interests, or claims of any kind; (c) the Exchanging Holder has not assigned, sold, and/or transferred (for collateral or otherwise) all or any portion of the Notes or any rights or obligations related thereto, nor has entered into an agreement to do so and (d) the Notes set forth on Schedule 1 constitute all of the Notes held by the Exchanging Holder.

6. Miscellaneous.

6.1 Further Assurances. The Exchanging Holder shall execute any other documents or take any other actions reasonably requested by the Company to fulfill the transactions described in and contemplated by this Agreement.

6.2 Governing Law. This Agreement shall be governed by and construed in accordance with the internal laws of the State of Delaware, without regard to its principles of conflicts of laws.

6.3 Entire Agreement. This Agreement (including the Schedules and Exhibits hereto) constitutes and fully expresses the entire understanding and agreement between the parties with respect to the subject matter hereof, superseding all prior and contemporaneous understandings, agreements, negotiations, offers, and discussions, whether written or oral, of the parties with respect thereto, or with respect to any other conversion, restructuring, or exchange of the Notes.

6.4 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.5 Counterparts; Electronic Copies. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. It is anticipated that this Agreement may be executed, and the transactions contemplated by this Agreement may be closed and consummated, by the transmission of documents, signature pages of documents and funds by mail, delivery service, fax or other electronic transmission. An electronic copy of this Agreement and any signatures on any counterpart hereof shall be considered for all purposes as originals.

6.6 Amendments. This Agreement may be amended or modified and the observance of any term hereof may be waived (either generally or in a particular instance and either retroactively or prospectively) only by a written instrument executed by the Company and the Exchanging Holder. Any amendment or waiver so effected shall be binding upon all of the parties and all of their respective successors, personal representatives, heirs, and permitted assigns.

6.7 Severability. If any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, portions of such provision, or such provision in its entirety, to the extent necessary, shall be severed from this Agreement, and such court will replace such illegal, void or unenforceable provision of this Agreement with a valid and enforceable provision that will achieve, to the extent possible, the same economic, business and other purposes of the illegal, void or unenforceable provision. The balance of this Agreement shall be enforceable in accordance with its terms.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the parties have executed this Exchange Agreement to be effective as of the date first above written.

SEQLL INC.

By: /s/ Dan Jones

Name: Daniel Jones
Title: Chief Executive Officer

EXCHANGING HOLDER:

ST. LAURENT INVESTMENTS, LLC

By: /s/ William St. Laurent
Name: William St. Laurent
Title: Manager

[Signature Page to the Exchange Agreement]

Schedule 1

Payee	Principal Amount of the Note	Note Issue Date	Interest Rate	Accrued Interest as of September 30, 2018
St. Laurent Investments, LLC	100,000.00	3/6/2018	10%	$ 5,694.44
St. Laurent Investments, LLC	50,000.00	3/22/2018	10%	$ 2,625.00
St. Laurent Investments, LLC	50,000.00	4/3/2018	10%	$ 2,458.33
St. Laurent Investments, LLC	125,000.00	5/1/2018	10%	$ 5,208.33
St. Laurent Investments, LLC	70,000.00	5/16/2018	10%	$ 2,625.00
St. Laurent Investments, LLC	125,000.00	5/29/2018	10%	$ 4,270.83
St. Laurent Investments, LLC	80,000.00	6/12/2018	10%	$ 2,400.00
St. Laurent Investments, LLC	80,000.00	6/27/2018	10%	$ 2,066.67
St. Laurent Investments, LLC	90,000.00	7/10/2018	10%	$ 2,025.00
St. Laurent Investments, LLC	60,000.00	7/26/2018	10%	$ 1,083.33
St. Laurent Investments, LLC	100,000.00	9/5/2018	10%	$ 694.44
St. Laurent Investments, LLC	100,000.00	9/20/2018	10%	$ 277.78
Total	**$ 1,030,000.00**			**$ 31,429.15**

EXHIBIT A

SUBSCRIPTION DOCUMENTS

EXHIBIT B-1

NEW NOTE

EXHIBIT B-2

SECURITY AGREEMENT

EXHIBIT C-1

WARRANT I

EXHIBIT C-2

WARRANT II

Exhibit 10.9

SEQLL, INC.
2014 EQUITY INCENTIVE PLAN
STOCK OPTION AWARD

Dear _____,

You have been granted an option (an "Option") to purchase shares of common stock of SeqLL, Inc., a Delaware corporation (the "Company"), which is subject to the terms of the SeqLL, Inc. 2014 Equity Incentive Plan (the "Plan") and this Stock Option Award Agreement (this "Agreement"). Capitalized terms used but not defined in this Agreement shall have the meanings set forth in the Plan.

Grant Date:	_____, 2018
Number of Option Shares:	_____
Type of Option:	☐ Incentive Stock Option ☐ Nonqualified Stock Option
Exercise Price per Share:	U.S. $_____
Vesting Schedule:	Your Option will vest according to the following schedule, provided that you at all times have a Service Relationship with Company or an Affiliate from the Grant Date through the applicable vesting date: [●]% will vest on _____ [●]% will vest on _____ [●]% will vest on _____ Except as otherwise provided in this Agreement or in the Plan, if you experience a Termination Event prior to the date the Option is vested (as described above), you will forfeit the unvested portion of your Option.
Expiration:	This Option shall expire at, and cannot be exercised after, the close of business on the tenth (10^{th}) anniversary of the Grant Date (the "Expiration Date"), unless terminated earlier pursuant to the terms of this Agreement or the Plan. Upon termination or expiration of this Option, all your rights hereunder shall cease.
Exercise:	You may exercise this Option only to the extent it is vested and has not expired or terminated. To exercise your Option, you must follow the procedures established by the Company, which may include exercising by electronic means.
Issuance of Shares:	As soon as practical after exercise, the Company shall issue certificates in the Optionee's name or make an appropriate book entry for such number of Shares purchased pursuant to the Option.

Termination of Employment:	If you experience a Termination Event, your Option will be treated in accordance with Section 13 of the Plan.[1]
Sale Event:	Upon a Sale Event, your Option will be treated in accordance with Section 4 of the Plan.
Rights as Stockholder:	You will not be deemed for any purposes to be a stockholder of the Company with respect to any of Shares underlying your Option unless and until Shares are issued to you upon exercise of this Award.
Restrictions on Transfer:	Except as provided in the Plan, during your lifetime, this Award is only exercisable by you. Any attempt to transfer this Award other than in accordance with the terms of the Plan shall be null and void.
Tax Withholding:	You understand that you (and not the Company) shall be responsible for your own federal, state, local, or foreign tax liability and any of your other tax consequences that may arise as a result of this Award, and that you should rely solely on the determinations of your tax advisors or your own determinations, and not on any statements or representations by the Company or any of its agents with regard to all tax matters. To the extent that the grant, vesting, or exercise of your Award or disposition of any Shares acquired under your Award results in income to you for national, federal, state, local, foreign, or other tax purposes, the Company may deduct (or require an Affiliate to deduct) from any payments of any kind otherwise due to you to satisfy such tax or other withholding obligations. Alternatively, the Company or its Affiliate may require you to pay to the Company or its Affiliate, in cash, promptly on demand, or make other arrangements satisfactory to the Company or its Affiliate regarding the payment of the withholding amount. At the Committee's discretion, you may be able to satisfy all or a portion of the withholding obligations arising in connection with this Award by electing to (i) have the Company or its Affiliate withhold Shares otherwise due to you upon exercise of your Option or (ii) deliver other previously owned Shares, in each case having a Fair Market Value equal to the amount to be withheld; *provided* that the amount to be withheld may not exceed the maximum statutory tax rate associated with the transaction. If an election is provided, the election must be made on or before the date as of which the amount of tax to be withheld is determined and otherwise as the Committee requires.
Electronic Communications:	The Company may, in its sole discretion, decide to deliver any documents related to current or future participation in the Plan by electronic means. By accepting this Award, you hereby consent to receive such documents by electronic delivery, and agree to participate in the Plan through an on-line or electronic system established and maintained by the Company or a third-party designated by the Company. You also agree that all on-line acknowledgements shall have the same force and effect as a written signature.

[1] Currently, this is drafted so that options will be treated under the terms of the plan (which, is all unvested are forfeited; have 1 year to exercise in the case of death or disability, and 3 months for all other terminations. If they are terminated for Cause, they would forfeit all options (including vested). We can, however, revise this to provide an alternative treatment on an employee-by-employee basis.

Miscellaneous:

- This Award is expressly subject to all the terms and conditions contained in this Agreement and the Plan, and the terms of the Plan are incorporated herein by reference.

- As a condition of the granting of this Award, you agree, for yourself and your legal representatives or guardians, that this Award shall be interpreted by the Committee and that any interpretation by the Committee of the terms of this Agreement or the Plan and any determination made by the Committee pursuant to this Award shall be final, binding and conclusive.

- Generally, this Agreement can only be modified or amended by a writing signed by both you and the Company. However, the Committee may modify or amend this Award in certain circumstances without your consent as permitted by the Plan.

- The grant of this Award does not provide you with any right to continued employment or service with the Company or any Affiliate.

- By accepting this Award, you agree not to sell any Shares acquired under this Award at a time when applicable laws, Company policies, or an agreement between the Company and its underwriters prohibit a sale.

- This Award, and any compensation or benefits that you receive as a result of this Award, shall be subject to any clawback or recoupment policy that the Company may adopt from time to time.

The Company has caused this Agreement to be executed by one of its authorized officers and is effective as of the Grant Date.

SeqLL, Inc.

_____

[Name]
[Title]

Exhibit 10.10

SEQLL INC.

SERIES A-1 CONVERTIBLE PREFERRED STOCK PURCHASE AGREEMENT

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SERIES A-1 CONVERTIBLE PREFERRED STOCK PURCHASE AGREEMENT

THIS SERIES A-1 CONVERTIBLE PREFERRED STOCK PURCHASE AGREEMENT (this "**Agreement**"), is made as of the 30th day of May, 2014 by and among SeqLL Inc., a Delaware corporation (the "**Company**"), the investors listed on Exhibit A attached to this Agreement (each a "**Purchaser**" and together the "**Purchasers**").

The parties hereby agree as follows:

1. Purchase and Sale of Preferred Stock.

1.1 Sale and Issuance of Series A-1 Convertible Preferred Stock.

(a) The Company shall adopt and file with the Secretary of State of the State of Delaware on or before the Initial Closing (as defined below) the Amended and Restated Certificate of Incorporation in the form of Exhibit B attached to this Agreement (the "**Restated Certificate**").

(b) Subject to the terms and conditions of this Agreement, each Purchaser agrees to purchase at the Closing and the Company agrees to sell and issue to each Purchaser at the Closing that number of shares of Series A-1 Convertible Preferred Stock, $0.00001 par value per share (the "**Series A-1 Preferred Stock**"), set forth opposite each Purchaser's name on Exhibit A, at a purchase price of $0.32 per share. The shares of Series A-1 Preferred Stock issued to the Purchasers pursuant to this Agreement (including any shares issued at the Initial Closing and any Milestone Shares or Additional Shares, as defined below) shall be referred to in this Agreement as the "**Shares**."

1.2 Closing; Delivery.

(a) The initial purchase and sale of the Shares shall take place remotely via the exchange of documents and signatures, at 10:00 a.m., on April, 2014, or at such other time and place as the Company and the Purchasers mutually agree upon, orally or in writing (which time and place are designated as the "**Initial Closing**"). In the event there is more than one closing, the term "**Closing**" shall apply to each such closing unless otherwise specified.

(b) At each Closing, the Company shall deliver to each Purchaser a certificate representing the Shares being purchased by such Purchaser at such Closing against payment of the purchase price therefor by check payable to the Company, by wire transfer to a bank account designated by the Company, by cancellation or conversion of indebtedness of the Company to Purchaser, including interest, or by any combination of such methods.

1.3 Sale of Additional Shares of Preferred Stock. After the Initial Closing, the Company may sell, on the same terms and conditions as those contained in this Agreement, additional shares equal to the difference between (a) the 3,125,000 shares of Series A-1 Preferred Stock authorized under the Restated Certificate, less (b) the number of shares sold at the Initial Closing (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or similar recapitalization affecting such shares) of Series A-1 Preferred Stock (the "**Additional Shares**"), to one or more purchasers (the "**Additional Purchasers**"), provided that (i) such subsequent sale is consummated prior to thirty (30) days after the Initial Closing, and (ii) each Additional Purchaser shall become a party to the Transaction Agreements (as defined below), by executing and delivering a counterpart signature page to each of the Transaction Agreements. Exhibit A to this Agreement shall be updated to reflect the number of Additional Shares purchased at each such Closing and the parties purchasing such Additional Shares.

1.4 [Intentionally Omitted.]

1.5 Defined Terms Used in this Agreement. In addition to the terms defined above, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

(a) "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including, without limitation, any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

(b) "**Code**" means the Internal Revenue Code of 1986, as amended.

(c) "**Company Intellectual Property**" means all patents, patent applications, trademarks, trademark applications, service marks, service mark applications, tradenames, copyrights, trade secrets, domain names, mask works, information and proprietary rights and processes, similar or other intellectual property rights, as are necessary to the Company in the conduct of the Company's business as now conducted and as presently proposed to be conducted.

(d) "**GDT**" means Genomic Diagnostic Technologies, Inc., a Florida corporation.

(e) "**Indemnification Agreement**" means the agreement between the Company and the director designated by any Purchaser entitled to designate a member of the Board of Directors pursuant to the Voting Agreement, dated as of the date of the Initial Closing, in the form of Exhibit D attached to this Agreement.

(f) "**Investors' Rights Agreement**" means the agreement among the Company and the Purchasers and certain other stockholders of the Company dated as of the date of the Initial Closing, in the form of Exhibit E attached to this Agreement.

(g) "**Key Employee**" means Daniel Jones.

(h) "**Knowledge**" including the phrase "**to the Company's knowledge**" shall mean the actual knowledge of the following officers: Daniel Jones.

(i) "**Material Adverse Effect**" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, or results of operations of the Company.

(j) "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(j) "**Purchaser**" means each of the Purchasers who is initially a party to this Agreement and any Additional Purchaser who becomes a party to this Agreement at a subsequent Closing under Subsection 1.3.

(k) "**Right of First Refusal and Co-Sale Agreement**" means the agreement among the Company, the Purchasers and certain other stockholders of the Company, dated as of the date of the Initial Closing, in the form of Exhibit F attached to this Agreement

(l) "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(m) "**Shares**" means the shares of Series A-1 Preferred Stock issued at the Initial Closing or Additional Shares issued at a subsequent Closing under Subsection 1.3.

(n) "**Transaction Agreements**" means this Agreement, the Investors' Rights Agreement, the Right of First Refusal and Co-Sale Agreement and the Voting Agreement.

(o) "**Voting Agreement**" means the agreement among the Company, the Purchasers and certain other stockholders of the Company, dated as of the date of the Initial Closing, in the form of Exhibit G attached to this Agreement.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to each Purchaser that, except as set forth on the Disclosure Schedule attached as Exhibit C to this Agreement, which exceptions shall be deemed to be part of the representations and warranties made hereunder, the following representations are true and complete as of the date of the Initial Closing, except as otherwise indicated. The Disclosure Schedule shall be arranged in sections corresponding to the numbered and lettered sections and subsections contained in this Section 2, and the disclosures in any section or subsection of the Disclosure Schedule shall qualify other sections and subsections in this Section 2 only to the extent it is readily apparent from a reading of the disclosure that such disclosure is applicable to such other sections and subsections.

For purposes of these representations and warranties (other than those in Subsections 2.2, 2.3, 2.4, 2.5 and 2.6), the term the "**Company**" shall include any subsidiaries of the Company, unless otherwise noted herein.

2.1 Organization, Good Standing, Corporate Power and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as presently conducted and as proposed to be conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would have a Material Adverse Effect.

2.2 Capitalization.

(a) The authorized capital of the Company consists, immediately prior to the Initial Closing, of:

(i) 13,125,000 shares of common stock, $0.00001 par value per share (the "**Common Stock**"), 9,000,000 shares of which are issued and outstanding immediately prior to the Initial Closing. All of the outstanding shares of Common Stock have been duly authorized, are fully paid and nonassessable and were issued in compliance with all applicable federal and state securities laws.

(ii) 3,125,000 shares of Preferred Stock, of which 3,125,000 shares have been designated Series A-1 Preferred Stock, none of which are issued and outstanding immediately prior to the Initial Closing. The rights, privileges and preferences of the Preferred Stock are as stated in the Restated Certificate and as provided by the Delaware General Corporation Law.

(b) The Company has reserved 1,000,000 shares of Common Stock for issuance to officers, directors, employees and consultants of the Company pursuant to its 2014 Equity Incentive Plan duly adopted by the Board of Directors and approved by the Company stockholders (the "**Stock Plan**"). Of such reserved shares of Common Stock, zero (0) shares have been issued pursuant to restricted stock purchase agreements, options to purchase zero (0) shares have been granted and are currently outstanding, and 1,000,000 shares of Common Stock remain available for issuance to officers, directors, employees and consultants pursuant to the Stock Plan. The Company has furnished to the Purchasers complete and accurate copies of the Stock Plan and forms of agreements used thereunder.

(c) Except for (A) the conversion privileges of the Shares to be issued under this Agreement, (B) the rights provided in Section 4 of the Investors' Rights Agreement, (C) the conversion rights of the Notes, and (D) the securities and rights described in Subsection 2.2(b) of this Agreement and Subsection 2.2(c) of the Disclosure Schedule, there are no outstanding options, warrants, rights (including conversion or preemptive rights and rights of first refusal or similar rights) or agreements, orally or in writing, to purchase or acquire from the Company any shares of Common Stock or Series A-1 Preferred Stock, or any securities convertible into or exchangeable for shares of Common Stock or Series A-1 Preferred Stock. All outstanding shares of the Company's Common Stock and all shares of the Company's Common Stock underlying outstanding options are subject to a lock-up or market standoff agreement of not less than one hundred eighty (180) days following the Company's initial public offering pursuant to a registration statement filed with the Securities and Exchange Commission under the Securities Act.

(d) None of the Company's stock purchase agreements or stock option documents contains a provision for acceleration of vesting (or lapse of a repurchase right) or other changes in the vesting provisions or other terms of such agreement or understanding upon the occurrence of any event or combination of events, including without limitation in the case where the Stock Plan is not assumed in an acquisition. The Company has never adjusted or amended the exercise price of any stock options previously awarded, whether through amendment, cancellation, replacement grant, repricing, or any other means. Except as set forth in the Restated Certificate, the Company has no obligation (contingent or otherwise) to purchase or redeem any of its capital stock.

2.3 Subsidiaries. Except for SeqLL, LLC, a limited liability company organized under the laws of Massachusetts (the "**Subsidiary**"), the Company does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association, or other business entity. The Company is not a participant in any joint venture, partnership or similar arrangement. The Subsidiary is duly organized and validly existing and in good standing under the laws of the Massachusetts and has all requisite corporate power and authority to carry on its business as presently conducted and as proposed to be conducted. The Company owns all of the issued and outstanding membership interests of the Subsidiary.

2.4 Authorization. All corporate action required to be taken by the Company's Board of Directors and stockholders in order to authorize the Company to enter into the Transaction Agreements, and to issue the Shares at the Initial Closing and the Common Stock issuable upon conversion of the Shares, has been taken or will be taken prior to the Initial Closing. All action on the part of the officers of the Company necessary for the execution and delivery of the Transaction Agreements, the performance of all obligations of the Company under the Transaction Agreements to be performed as of the Initial Closing, and the issuance and delivery of the Shares has been taken or will be taken prior to the Initial Closing. The Transaction Agreements, when executed and delivered by the Company, shall constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (iii) to the extent the indemnification provisions contained in the Investors' Rights Agreement and the Indemnification Agreement may be limited by applicable federal or state securities laws.

2.5 Valid Issuance of Shares. The Shares, when issued, sold and delivered in accordance with the terms and for the consideration set forth in this Agreement, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable state and federal securities laws and liens or encumbrances created by or imposed by a Purchaser. Assuming the accuracy of the representations and warranties of the Purchasers in Section 3 of this Agreement and subject to the filings described in Subsection 2.6(ii) below, the Shares will be issued in compliance with all applicable federal and state securities laws. The Common Stock issuable upon conversion of the Shares has been duly reserved for issuance, and upon issuance in accordance with the terms of the Restated Certificate, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable federal and state securities laws and liens or encumbrances created by or imposed by a Purchaser. Based in part upon the representations and warranties of the Purchasers in Section 3 of this Agreement, and subject to Subsection 2.6 below, the Common Stock issuable upon conversion of the Shares will be issued in compliance with all applicable federal and state securities laws.

2.6 Governmental Consents and Filings. Assuming the accuracy of the representations and warranties made by the Purchasers in Section 3 of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority is required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for (i) the filing of the Restated Certificate, which will have been filed as of the Initial Closing, and (ii) filings pursuant to Regulation D of the Securities Act, and applicable state securities laws, which have been made or will be made in a timely manner.

2.7 Litigation. There is no claim, action, suit, proceeding, arbitration, complaint, charge or investigation pending or to the Company's knowledge, currently threatened in writing against the Company or any officer, director or Key Employee of the Company, to the Company's knowledge, arising out of their employment or board relationship with the Company that questions the validity of the Transaction Agreements or the right of the Company to enter into them, or to consummate the transactions contemplated by the Transaction Agreements. Neither the Company nor, to the Company's knowledge, any of its officers, directors or Key Employees is a party or is named as subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality (in the case of officers, directors or Key Employees, such as would affect the Company). There is no action, suit, proceeding or investigation by the Company pending or which the Company intends to initiate.

2.8 Intellectual Property. To its knowledge (but without having conducted any special investigation or patent or trademark search), the Company owns or possesses or believes it can acquire on commercially reasonable terms sufficient legal rights to all Company Intellectual Property without any known conflict with, or infringement of, the rights of others. To the Company's knowledge, no product or service marketed or sold (or proposed to be marketed or sold) by the Company violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Company Intellectual Property, nor is the Company bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. The Company has not received any communications alleging that the Company has violated, or by conducting its business, would violate any of the patents, trademarks, service marks, tradenames, copyrights, trade secrets, mask works or other proprietary rights or processes of any other Person. The Company has obtained and possesses valid licenses to use all of the software programs present on the computers and other software-enabled electronic devices that it owns or leases or that it has otherwise provided to its employees for their use in connection with the Company's business. To the Company's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or Persons it currently intends to hire) made prior to their employment by the Company. Each employee and consultant has assigned to the Company all intellectual property rights he or she owns that are related to the Company's business as now conducted and as presently proposed to be conducted. Subsection 2.8 of the Disclosure Schedule lists all patents, patent applications, trademarks, trademark applications, service marks, service mark applications, tradenames, copyrights, and licenses to and under any of the foregoing. The Company has not embedded any open source, copyleft or community source code in any of its products generally available or in development, including but not limited to any libraries or code licensed under any General Public License, Lesser General Public License or similar license arrangement. For purposes of this Subsection 2.8, the Company shall be deemed to have knowledge of a patent right if the Company has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to United States patent laws.

2.9 Compliance with Other Instruments. The Company is not in violation or default (i) of any provisions of its Restated Certificate or Bylaws, (ii) of any instrument, judgment, order, writ or decree, (iii) under any note, indenture or mortgage, or (iv) under any lease, agreement, contract or purchase order to which it is a party or by which it is bound that is required to be listed on the Disclosure Schedule, or (v) to its knowledge, of any provision of federal or state statute, rule or regulation applicable to the Company, the violation of which would have a Material Adverse Effect. The execution, delivery and performance of the Transaction Agreements and the consummation of the transactions contemplated by the Transaction Agreements will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement; or (ii) an event which results in the creation of any lien, charge or encumbrance upon any assets of the Company or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to the Company.

2.10 Agreements; Actions.

(a) Except for the Transaction Agreements, there are no agreements, understandings, instruments, contracts or proposed transactions to which the Company is a party or by which it is bound that involve (i) obligations (contingent or otherwise) of, or payments to, the Company in excess of $50,000, (ii) the license of any patent, copyright, trademark, trade secret or other proprietary right to or from the Company, (iii) the grant of rights to manufacture, produce, assemble, license, market, or sell its products to any other Person that limit the Company's exclusive right to develop, manufacture, assemble, distribute, market or sell its products, or (iv) indemnification by the Company with respect to infringements of proprietary rights.

(b) The Company has not (i) declared or paid any dividends, or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or incurred any other liabilities individually in excess of $50,000 or in excess of $100,000 in the aggregate, (iii) made any loans or advances to any Person, other than ordinary advances for travel expenses, or (iv) sold, exchanged or otherwise disposed of any of its assets or rights, other than the sale of its inventory in the ordinary course of business. For the purposes of (b) and (c) of this Subsection 2.10, all indebtedness, liabilities, agreements, understandings, instruments, contracts and proposed transactions involving the same Person (including Persons the Company has reason to believe are affiliated with each other) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsection.

(c) The Company is not a guarantor or indemnitor of any indebtedness of any other Person.

2.11 Certain Transactions.

(a) Other than (i) standard employee benefits generally made available to all employees, (ii) standard director and officer indemnification agreements approved by the Board of Directors, and (iii) the purchase of shares of the Company's capital stock and the issuance of options to purchase shares of the Company's Common Stock, in each instance, approved in the written minutes of the Board of Directors (previously provided to the Purchasers or their counsel), there are no agreements, understandings or proposed transactions between the Company and any of its officers, directors, consultants or Key Employees, or any Affiliate thereof.

(b) The Company is not indebted, directly or indirectly, to any of its directors, officers or employees or to their respective spouses or children or to any Affiliate of any of the foregoing, other than in connection with expenses or advances of expenses incurred in the ordinary course of business or employee relocation expenses and for other customary employee benefits made generally available to all employees. None of the Company's directors, officers or employees, or any members of their immediate families, or any Affiliate of the foregoing are, directly or indirectly, indebted to the Company or, to the Company's knowledge, have any (i) material commercial, industrial, banking, consulting, legal, accounting, charitable or familial relationship with any of the Company's customers, suppliers, service providers, joint venture partners, licensees and competitors, (ii) direct or indirect ownership interest in any firm or corporation with which the Company is affiliated or with which the Company has a business relationship, or any firm or corporation which competes with the Company except that directors, officers, employees or stockholders of the Company may own stock in (but not exceeding two percent (2%) of the outstanding capital stock of) publicly traded companies that may compete with the Company; or (iii) financial interest in any material contract with the Company.

2.12 Rights of Registration and Voting Rights. Except as provided in the Investors' Rights Agreement, the Company is not under any obligation to register under the Securities Act any of its currently outstanding securities or any securities issuable upon exercise or conversion of its currently outstanding securities. To the Company's knowledge, except as contemplated in the Voting Agreement, no stockholder of the Company has entered into any agreements with respect to the voting of capital shares of the Company.

2.13 Financial Statements. The Company has delivered to each Purchaser its unaudited financial statements as of December 31, 2013 (collectively, the "**Financial Statements**"). The Financial Statements have been prepared in accordance with generally accepted accounting principles ("**GAAP**") applied on a consistent basis throughout the periods indicated, except that the Financial Statements may not contain all footnotes required by GAAP. The Financial Statements fairly present in all material respects the financial condition and operating results of the Company as of the dates, and for the periods, indicated therein, subject in the case of the unaudited Financial Statements to normal year-end audit adjustments. Except as set forth in the Financial Statements, the Company has no material liabilities or obligations, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to December 31, 2013; (ii) obligations under contracts and commitments incurred in the ordinary course of business; and (iii) liabilities and obligations of a type or nature not required under GAAP to be reflected in the Financial Statements, which, in all such cases, individually and in the aggregate would not have a Material Adverse Effect. The Company maintains and will continue to maintain a standard system of accounting established and administered in accordance with GAAP.

2.14 Changes. To the Company's knowledge, since December 31, 2013, there have been no events or circumstances of any kind that have had or could reasonably be expected to result in a Material Adverse Effect, except for events effecting the economy and the Company's industry generally.

2.15 Employee Matters.

(a) To the Company's knowledge, none of its employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would materially interfere with such employee's ability to promote the interest of the Company or that would conflict with the Company's business. Neither the execution or delivery of the Transaction Agreements, nor the carrying on of the Company's business by the employees of the Company, nor the conduct of the Company's business as now conducted and as presently proposed to be conducted, will, to the Company's knowledge, conflict with or result in a breach of the terms, conditions, or provisions of, or constitute a default under, any contract, covenant or instrument under which any such employee is now obligated.

(b) The Company is not delinquent in payments to any of its employees, consultants, or independent contractors for any wages, salaries, commissions, bonuses, or other direct compensation for any service performed for it to the date hereof or amounts required to be reimbursed to such employees, consultants or independent contractors. The Company has complied in all material respects with all applicable state and federal equal employment opportunity laws and with other laws related to employment, including those related to wages, hours, worker classification and collective bargaining. The Company has withheld and paid to the appropriate governmental entity or is holding for payment not yet due to such governmental entity all amounts required to be withheld from employees of the Company and is not liable for any arrears of wages, taxes, penalties or other sums for failure to comply with any of the foregoing.

(c) To the Company's knowledge, no Key Employee intends to terminate employment with the Company or is otherwise likely to become unavailable to continue as a Key Employee, nor does the Company have a present intention to terminate the employment of any of the foregoing. The employment of each employee of the Company is terminable at the will of the Company. Except as set forth in Subsection 2.15 of the Disclosure Schedule or as required by law, upon termination of the employment of any such employees, no severance or other payments will become due. Except as set forth in Subsection 2.15 of the Disclosure Schedule, the Company has no policy, practice, plan or program of paying severance pay or any form of severance compensation in connection with the termination of employment services.

2.16 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes due and payable by the Company which have not been timely paid. There are no accrued and unpaid federal, state, country, local or foreign taxes of the Company which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. The Company has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

2.17 [Intentionally Omitted].

2.18 Employee Agreements. Each current and former employee, consultant and officer of the Company has executed an agreement with the Company regarding confidentiality and proprietary information substantially in the form or forms delivered to the counsel for the Purchasers (the "**Confidential Information Agreements**"). No current or former Key Employee has excluded works or inventions from his or her assignment of inventions pursuant to such Key Employee's Confidential Information Agreement. Each current and former Key Employee has executed a non-solicitation agreement substantially in the form or forms delivered to GDT. The Company is not aware that any of its Key Employees is in violation of any agreement covered by this Subsection 2.18.

2.19 Permits. The Company has all franchises, permits, licenses and any similar authority necessary for the conduct of its business, the lack of which could reasonably be expected to have a Material Adverse Effect. The Company is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

2.20 Corporate Documents. The Restated Certificate and Bylaws of the Company are in the form provided to the Purchasers. The copy of the minute books of the Company provided to the Purchasers contains minutes of all meetings of directors and stockholders and all actions by written consent without a meeting by the directors and stockholders since the date of incorporation and accurately reflects in all material respects all actions by the directors (and any committee of directors) and stockholders with respect to all transactions referred to in such minutes.

3. Representations and Warranties of the Purchasers. Each Purchaser hereby represents and warrants to the Company, severally and not jointly, that:

3.1 Authorization. The Purchaser has full power and authority to enter into the Transaction Agreements. The Transaction Agreements to which the Purchaser is a party, when executed and delivered by the Purchaser, will constitute valid and legally binding obligations of the Purchaser, enforceable in accordance with their terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, or (b) to the extent the indemnification provisions contained in the Investors' Rights Agreement may be limited by applicable federal or state securities laws.

3.2 Purchase Entirely for Own Account. This Agreement is made with the Purchaser in reliance upon the Purchaser's representation to the Company, which by the Purchaser's execution of this Agreement, the Purchaser hereby confirms, that the Shares to be acquired by the Purchaser will be acquired for investment for the Purchaser's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, the Purchaser further represents that the Purchaser does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to any of the Shares. The Purchaser has not been formed for the specific purpose of acquiring the Shares.

3.3 Disclosure of Information. The Purchaser has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Shares with the Company's management and has had an opportunity to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Purchasers to rely thereon.

3.4 Restricted Securities. The Purchaser understands that the Shares have not been, and will not be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed herein. The Purchaser understands that the Shares are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Purchaser must hold the Shares indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Purchaser acknowledges that the Company has no obligation to register or qualify the Shares, or the Common Stock into which it may be converted, for resale except as set forth in the Investors' Rights Agreement. The Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Shares, and on requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

3.5 No Public Market. The Purchaser understands that no public market now exists for the Shares, and that the Company has made no assurances that a public market will ever exist for the Shares.

3.6 Legends. The Purchaser understands that the Shares and any securities issued in respect of or exchange for the Shares, may be notated with one or all of the following legends:

(a) "THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."

(b) Any legend set forth in, or required by, the other Transaction Agreements.

(c) Any legend required by the securities laws of any state to the extent such laws are applicable to the Shares represented by the certificate, instrument, or book entry so legended.

3.7 Accredited Investor. The Purchaser is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

3.8 Foreign Investors. If the Purchaser is not a United States person (as defined by Section 7701(a)(30) of the Code), the Purchaser hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Shares or any use of this Agreement, including (i) the legal requirements within its jurisdiction for the purchase of the Shares, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of the Shares. The Purchaser's subscription and payment for and continued beneficial ownership of the Shares will not violate any applicable securities or other laws of the Purchaser's jurisdiction.

3.9 No General Solicitation. Neither the Purchaser, nor any of its officers, directors, employees, agents, stockholders or partners has either directly or indirectly, including, through a broker or finder (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Shares.

3.10 Exculpation Among Purchasers. The Purchaser acknowledges that it is not relying upon any Person, other than the Company and its officers and directors, in making its investment or decision to invest in the Company.

3.11 Residence. If the Purchaser is an individual, then the Purchaser resides in the state or province identified in the address of the Purchaser set forth on Exhibit A; if the Purchaser is a partnership, corporation, limited liability company or other entity, then the office or offices of the Purchaser in which its principal place of business is identified in the address or addresses of the Purchaser set forth on Exhibit A.

3.12 Consent to Promissory Note Conversion and Termination. Each Purchaser, to the extent that such Purchaser, as set forth on the Schedule of Purchasers, is a holder of any Note of the Company being converted and/or cancelled in consideration of the issuance hereunder of Shares to such Purchaser, hereby agrees that the entire amount owed to such Purchaser under such Note is being tendered to the Company in exchange for the applicable Shares set forth on the Schedule of Purchasers, and effective upon the Company's and such Purchaser's execution and delivery of this Agreement, without any further action required by the Company or such Purchaser, such Note and all obligations set forth therein shall be immediately deemed repaid in full and terminated in their entirety, including, but not limited to, any security interest effected therein.

4. Conditions to the Purchasers' Obligations at Closing. The obligations of each Purchaser to purchase Shares at the Initial Closing or any subsequent Closing are subject to the fulfillment, on or before such Closing, of each of the following conditions, unless otherwise waived:

4.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true and correct in all respects as of such Initial Closing.

4.2 Performance. The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company on or before such Closing.

4.3 Compliance Certificate. The Chief Executive Officer of the Company shall deliver to the Purchasers at the Initial Closing a certificate certifying that the conditions specified in Subsections 4.1 and 4.2 have been fulfilled.

4.4 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Shares pursuant to this Agreement shall be obtained and effective as of such Closing.

4.5 Board of Directors. As of the Initial Closing, the authorized size of the Board shall be three, and the Board shall be comprised of Daniel Jones, William St. Laurent and Georges C. St. Laurent III.

4.6 Indemnification Agreement. The Company shall have executed and delivered the Indemnification Agreements.

4.7 Investors' Rights Agreement. The Company and each Purchaser (other than the Purchaser relying upon this condition to excuse such Purchaser's performance hereunder) and the other stockholders of the Company named as parties thereto shall have executed and delivered the Investors' Rights Agreement.

4.8 Right of First Refusal and Co-Sale Agreement. The Company, each Purchaser (other than the Purchaser relying upon this condition to excuse such Purchaser's performance hereunder), and the other stockholders of the Company named as parties thereto shall have executed and delivered the Right of First Refusal and Co-Sale Agreement.

4.9 Voting Agreement. The Company, each Purchaser (other than the Purchaser relying upon this condition to excuse such Purchaser's performance hereunder), and the other stockholders of the Company named as parties thereto shall have executed and delivered the Voting Agreement.

4.10 Restated Certificate. The Company shall have filed the Restated Certificate with the Secretary of State of Delaware on or prior to the Closing, which shall continue to be in full force and effect as of the Closing.

4.11 Secretary's Certificate. The Secretary of the Company shall have delivered to the Purchasers at the Initial Closing a certificate certifying (i) the Bylaws of the Company, (ii) resolutions of the Board of Directors of the Company approving the Transaction Agreements and the transactions contemplated under the Transaction Agreements, and (iii) resolutions of the stockholders of the Company approving the Restated Certificate.

4.12 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing and all documents incident thereto shall be reasonably satisfactory in form and substance to each Purchaser, and each Purchaser (or its counsel) shall have received all such counterpart original and certified or other copies of such documents as reasonably requested. Such documents may include good standing certificates.

5. Conditions of the Company's Obligations at Closing. The obligations of the Company to sell Shares to the Purchasers at a Closing are subject to the fulfillment, on or before such Closing, of each of the following conditions, unless otherwise waived:

5.1 Representations and Warranties. The representations and warranties of each Purchaser contained in Section 3 shall be true and correct in all respects as of such Closing.

5.2 Performance. The Purchasers shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by them on or before such Closing.

5.3 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Shares pursuant to this Agreement shall be obtained and effective as of the Closing.

5.4 Investors' Rights Agreement. Each Purchaser shall have executed and delivered the Investors' Rights Agreement.

5.5 Right of First Refusal and Co-Sale Agreement. Each Purchaser and the other stockholders of the Company named as parties thereto shall have executed and delivered the Right of First Refusal and Co-Sale Agreement.

5.6 Voting Agreement. Each Purchaser and the other stockholders of the Company named as parties thereto shall have executed and delivered the Voting Agreement.

6. Miscellaneous.

6.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations and warranties of the Company and the Purchasers contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing and shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of the Purchasers or the Company.

6.2 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

6.3 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

6.4 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

6.5 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.6 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt, or (a) personal delivery to the party to be notified, (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page or Exhibit A, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Subsection 6.6. If notice is given to the Company, a copy shall also be sent to Foley & Lardner, LLP, 975 Page Mill Road, Palo Alto, CA 9430, Attn: E. Thom Rumberger Jr., Esq.

6.7 No Finder's Fees. Each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. Each Purchaser agrees to indemnify and to hold harmless the Company from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which each Purchaser or any of its officers, employees or representatives is responsible. The Company agrees to indemnify and hold harmless each Purchaser from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

6.8 Attorneys' Fees. If any action at law or in equity (including, arbitration) is necessary to enforce or interpret the terms of any of the Transaction Agreements, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

6.9 Amendments and Waivers. Except as set forth in Subsection 1.3 of this Agreement, any term of this Agreement may be amended, terminated or waived only with the written consent of the Company, and (i) the holders of a majority of the then-outstanding Shares, or (ii) for an amendment, termination or waiver effected prior to the Initial Closing, Purchasers obligated to purchase a majority of the Shares to be issued at the Initial Closing. Any amendment or waiver effected in accordance with this Subsection 6.9 shall be binding upon the Purchasers and each transferee of the Shares (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company.

6.10 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

6.11 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.12 Entire Agreement. This Agreement (including the Exhibits hereto), the Restated Certificate and the other Transaction Agreements constitute the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties are expressly canceled.

6.13 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of the Commonwealth of Massachusetts and to the jurisdiction of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Massachusetts or the United States District Court for the District of Massachusetts, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

COMPANY:

SEQLL INC.

By: /s/ Daniel Jones

Name: Daniel Jones

Title: President

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

GENOMIC DIAGNOSTIC TECHNOLOGIES, INC.

By: /s/ WM ST. LAURENT

Name: WM ST. LAURENT
(print)

Title: PRESIDENT

Address: 375 COMMERCE WAY, SUITE 101
LONGWOOD, FL 32750

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

/s/ Eleanor St. Laurent

Eleanor St. Laurent

Address: 120 NE 136th Ave., Suite 200,
Vancouver, WA 98684

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

/s/ Georges C. St. Laurent, III

Georges C. St. Laurent, III
Address: 375 Commerce Way, Suite 101,
Longwood, FL 32750

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASE:

/s/ Georges C. St. Laurent, Jr.

Georges C. St. Laurent, Jr.
Address: 120 NE 136th Ave., Suite 200,
Vancouver, WA 98684

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

FLORENCE H JONES REV TRUST U/A 07/22/03

By: /s/ Florence H. Jones
Name: Florence H. Jones
Title: Trustee

By: /s/ Robert P. Jones
Name: Robert P. Jones
Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

/s/ Tisha Jepson

Tisha Jepson
Address: 3732 Manor Road, #4,
Chevy Chase, MD 20815

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

PROVIDENT TRUST, LLC FBO: TISHA JEPSON ROTH IRA

By: /s/ Theresa Fette

Name: Theresa Fette

Title: CEO

PROVIDENT TRUST GROUP, LLC

CERTIFICATE OF RESOLUTION

I hereby certify that a regular meeting of the Managing Members of PROVIDENT TRUST GROUP, LLC, a Nevada Limited Liability Company organized and existing under and by virtue of the laws of the State of Nevada, held on the 1st day of October, 2013, at which meeting a quorum was present and acting throughout, the following resolution was adopted and is in full force and effect.

"RESOLVED, that the one signature of either Theresa Fette, Jason Helquist, Neil Schoenblum, Lori Love, Kimberly McGhee, Venita Salcido, Anna Kim, Spencer McMillan, Ken Cook or Ann Montano allows that any of the aforementioned individuals are authorized and empowered to buy, sell, and mortgage real property or transfer, endorse, sell, assign, set over and deliver any and all shares of stocks, bonds, debentures, proxies or other securities now or hereafter standing in the name of or owned in trust or custodial capacity by this Limited Liability Company or its nominee name and to make, execute and deliver any and all written instruments necessary or proper to effectuate the authority hereby conferred."

"RESOLVED, that Steven D. Collins and Spencer McMillan are authorized to Medallion Stamp all authorized signatures for Provident Trust Group LLC."

I further certify that the authority conferred above is not inconsistent with the Charter or the Operating Agreement of the Limited Liability Company, and that the following is a true and correct list of the Managers/Members of Provident Trust Group LLC, based on its current membership roster, as of this date:

Theresa Fette	Manager/Member
Jason Helquist	Manager/Member

We hereby certify that the above resolution is in full force and effect this 1st day of October, 2013, and the signatures below are true and accurate signature of the person authorized to sign securities on behalf of **PROVIDENT TRUST GROUP, LLC.**

ATTEST

/s/ Venita, Salcido
Venita, Salcido, EmpIoyee

/s/ Theresa Fette
Theresa Fette, Secretary

/s/ Lori Love
Lori Love, Employee

/s/ Theresa Fette
Theresa Fette, Member

/s/ Kimberly McGhee
Kimberly McGhee, Employee

/s/ Jason Helquist
Jason Helquist, Member

/s/ Spencer McMillan
Spencer McMillan, Employee

/s/ Steven D. Collins
Steven D. Collins, Employee

/s/ Anna Kim
Anna Kim, Employee

/s/ Neil Schoenblum
Neil Schoenblum, Employee

/s/ Ken Cook
Ken Cook, Employee

/s/ Ann Montano
Ann Montano, Employee

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

THE JAMES P MISCOLL BYPASS TRUST

By: /s/ Douglas Miscoll

Name: Douglas Miscoll

Title: Trustee

IN WITNESS WHEREOF, the parties have executed this Series A-1 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

/s/ Bruce T. Block

Bruce T. Block
Address: 9300 North Regent Road
Bayside, WI 53217

EXHIBITS

Exhibit A -	**SCHEDULE OF PURCHASERS**
Exhibit B -	**FORM OF AMENDED AND RESTATED CERTIFICATE OF INCORPORATION**
Exhibit C -	**DISCLOSURE SCHEDULE**
Exhibit D -	**FORM OF INDEMNIFICATION AGREEMENT**
Exhibit E -	**FORM OF INVESTORS' RIGHTS AGREEMENT**
Exhibit F -	**FORM OF RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT**
Exhibit G -	**FORM OF VOTING AGREEMENT**

EXHIBIT A

SCHEDULE OF PURCHASERS

Name and Address	***Payment in Cash***	***Shares of Series A-1 Preferred Stock***
Genomic Diagnostic Technologies, Inc. *375 Commerce Way* *Suite 101* *Longwood, Florida 32750*	$ 500,000	1,562,500
Eleanor St. Laurent *120 NE 136th Ave.* *Suite 200* *Vancouver, WA 98684*	$ 100,000	312,500
Georges C. St. Laurent, Jr. *120 NE 136th Ave.* *Suite 200* *Vancouver, WA 98684*	$ 250,000	781,250
Georges C. St. Laurent, III *375 Commerce Way* *Suite 101* *Longwood, FL 32750*	$ 10,000	31,250
FLORENCE H JONES REV TRUST U/A 07/22/03 *104 Pelczar Road* *Dracut, MA 01826*	$ 20,000	62,500
Tisha Jepson *3732 Manor Road, #4* *Chevy Chase, MD 20815*	$ 25,000	78,125
PROVIDENT TRUST, LLC *FBO: TISHA JEPSON ROTH* *IRA* *880 Sunset Road* *Suite #250* *Las Vegas, Nevada 89148*	$ 50,000	156,250
THE JAMES P MISCOLL BYPASS TRUST *146 W. Bellevue Avenue* *San Mateo, CA 94402*	$ 25,000	78,125
Bruce T. Block *9300 North Regent Road* *Bayside, WI 53217*	$ 20,000	62,500

EXHIBIT B

FORM OF AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION

EXHIBIT C

DISCLOSURE SCHEDULE

This Schedule of Exceptions is made and given pursuant to Section 2 of the Series A-1 Convertible Preferred Stock Purchase Agreement, dated as of May 30th, 2014 (the "Agreement"), between SeqLL Inc. (the "Company") and the Purchasers listed on Schedule A thereto. All capitalized terms used but not defined herein shall have the meanings as defined in the Agreement, unless otherwise provided. The section numbers below correspond to the section numbers of the representations and warranties in the Agreement; provided, however, that any information disclosed herein under any section number shall be deemed to be disclosed and incorporated into any other section number under the Agreement where such disclosure would be appropriate and such appropriateness is reasonably apparent from the face of such disclosure. Nothing in this Schedule of Exceptions is intended to broaden the scope of any representation or warranty contained in the Agreement or to create any covenant. Inclusion of any item in this Schedule of Exceptions (1) does not represent a determination that such item is material or establish a standard of materiality, (2) does not represent a determination that such item did not arise in the ordinary course of business, (3) does not represent a determination that the transactions contemplated by the Agreement require the consent of third parties, and (4) shall not constitute, or be deemed to be, an admission to any third party concerning such item. This Schedule of Exceptions includes brief descriptions or summaries of certain agreements and instruments, copies of which are available upon reasonable request. Such descriptions do not purport to be comprehensive, and are qualified in their entirety by reference to the text of the documents described, true and complete copies of which have been provided to the Investors or their respective counsel.

EXHIBIT D

FORM OF INDEMNIFICATION AGREEMENT

EXHIBIT E

FORM OF INVESTORS' RIGHTS AGREEMENT

EXHIBIT F

FORM OF RIGHT OF FIRST REFUSAL AND

CO-SALE AGREEMENT

EXHIBIT G

FORM OF VOTING AGREEMENT

Exhibit 10.11

SEQLL INC.

SERIES A-2 CONVERTIBLE PREFERRED STOCK PURCHASE AGREEMENT

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Exhibit A - SCHEDULE OF PURCHASERS

Exhibit B - FORM OF AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

Exhibit C - DISCLOSURE SCHEDULE

Exhibit D - FORM OF INDEMNIFICATION AGREEMENT

Exhibit E - FORM OF AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

Exhibit F - FORM OF AMENDED AND RESTATED RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT

Exhibit G - FORM OF AMENDED AND RESTATED VOTING AGREEMENT

Exhibit H - FORM OF WARRANT

SERIES A-2 CONVERTIBLE PREFERRED STOCK PURCHASE AGREEMENT

THIS SERIES A-2 CONVERTIBLE PREFERRED STOCK PURCHASE AGREEMENT (this "**Agreement**"), is made as of the 19th day of February, 2016 by and among SeqLL Inc., a Delaware corporation (the "**Company**"), the investors listed on Exhibit A attached to this Agreement (each a "**Purchaser**" and together the "**Purchasers**").

The parties hereby agree as follows:

1. Purchase and Sale of Series A-2 Preferred Stock.

1.1 Sale and Issuance of Series A-2 Convertible Preferred Stock.

(a) The Company shall adopt and file with the Secretary of State of the State of Delaware on or before the Initial Closing (as defined below) the Amended and Restated Certificate of Incorporation in the form of Exhibit B attached to this Agreement (the "**Restated Certificate**").

(b) Subject to the terms and conditions of this Agreement, each Purchaser agrees to purchase at the Closing and the Company agrees to sell and issue to each Purchaser at the Closing that number of shares of Series A-2 Convertible Preferred Stock, $0.00001 par value per share (the **"Series A-2 Preferred Stock**"), set forth opposite each Purchaser's name on Exhibit A, at a purchase price of $1.68 per share. The shares of Series A-2 Preferred Stock issued to the Purchasers pursuant to this Agreement (including any shares issued at the Initial Closing and any Additional Shares, as defined below) shall be referred to in this Agreement as the "**Shares**."

1.2 Closing; Warrants; Delivery.

(a) The initial purchase and sale of the Shares shall take place remotely via the exchange of documents and signatures, at 11:00 a.m. ET, on February __, 2016, or at such other time and place as the Company and the Purchasers mutually agree upon, orally or in writing (which time and place are designated as the "**Initial Closing**"). In the event there is more than one closing, the term "**Closing**" shall apply to each such closing unless otherwise specified.

(b) At each Closing, the Company shall deliver to each Purchaser (i) a certificate representing the Shares being purchased by such Purchaser at such Closing against payment of the purchase price therefor by check payable to the Company, by wire transfer to a bank account designated by the Company, by cancellation or conversion of indebtedness of the Company to Purchaser, including interest, or by any combination of such methods, and (ii) a warrant, in the form attached hereto as Exhibit H (the "**Warrant**"), entitling the holder to purchase such number of shares of Common Stock ("**Warrant Shares**") as set forth opposite each Purchaser's name on Exhibit A. Each Warrant shall be exercisable for a number of shares of Common Stock equal to (y) the applicable number of Shares purchased by the Purchaser at the applicable Closing, *multiplied* by (z) Six Percent (6%), rounded down to the nearest whole share. The exercise price for each Warrant Share shall be equal to $1.68 (as may be adjusted to reflect stock dividends, stock splits, reverse stock splits, combinations, recapitalizations and similar events).

1.3 Sale of Additional Shares of Series A-2 Preferred Stock.

After the Initial Closing, the Company may sell, on the same terms and conditions as those contained in this Agreement, additional shares equal to the difference between (a) the 892,857 shares of Series A-2 Preferred Stock authorized under the Restated Certificate, less (b) the number of shares sold at the Initial Closing (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or similar recapitalization affecting such shares) of Series A-2 Preferred Stock (the "**Additional Shares**"), to one or more purchasers (the "**Additional Purchasers**"), provided that (i) such subsequent sale is consummated prior to ninety (90) days after the Initial Closing, and (ii) each Additional Purchaser shall become a party to the Transaction Agreements (as defined below), by executing and delivering a counterpart signature page to each of the Transaction Agreements. Exhibit A to this Agreement shall be updated to reflect the number of Additional Shares purchased at each such Closing and the parties purchasing such Additional Shares, as well as the Warrants issued at each such Closing.

1.4 [Intentionally Omitted.]

1.5 Defined Terms Used in this Agreement.

In addition to the terms defined above, the following terms used in this Agreement shall be construed to have the meanings set forth or referenced below.

(a) "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including, without limitation, any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

(b) "**Code**" means the Internal Revenue Code of 1986, as amended.

(c) "**Company Intellectual Property**" means all patents, patent applications, trademarks, trademark applications, service marks, service mark applications, tradenames, copyrights, trade secrets, domain names, mask works, information and proprietary rights and processes, similar or other intellectual property rights, as are necessary to the Company in the conduct of the Company's business as now conducted and as presently proposed to be conducted.

(d) "**Indemnification Agreement**" means the agreement between the Company and the director designated by any Purchaser entitled to designate a member of the Board of Directors pursuant to the Voting Agreement, dated as of the date of the Initial Closing, in the form of Exhibit D attached to this Agreement.

(e) "**Investors' Rights Agreement**" means the agreement among the Company and the Purchasers and certain other stockholders of the Company dated as of the date of the Initial Closing, in the form of Exhibit E attached to this Agreement.

(f) "**Key Employee**" means Daniel Jones and Elizabeth Reczek.

(g) "**Knowledge**" including the phrase "**to the Company's knowledge**" shall mean the actual knowledge of the following officers: Daniel Jones and Elizabeth Reczek.

(h) "**Material Adverse Effect**" means a material adverse effect on the business, assets (including intangible assets), liabilities, financial condition, property, or results of operations of the Company.

(i) "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

(j) "**Preferred Stock**" means the Series A-1 Preferred Stock, and the Series A-2 Preferred Stock.

(k) "**Purchaser**" means each of the Purchasers who is initially a party to this Agreement and any Additional Purchaser who becomes a party to this Agreement at a subsequent Closing under Subsection 1.3.

(l) "**Right of First Refusal and Co-Sale Agreement**" means the agreement among the Company, the Purchasers and certain other stockholders of the Company, dated as of the date of the Initial Closing, in the form of Exhibit F attached to this Agreement

(m) "**Securities**" means the Shares and the Warrants, collectively.

(n) "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

(o) "**Shares**" means the shares of Series A-2 Preferred Stock issued at the Initial Closing or Additional Shares issued at a subsequent Closing under Subsection 1.3.

(p) "**Transaction Agreements**" means this Agreement, the Investors' Rights Agreement, the Right of First Refusal and Co-Sale Agreement and the Voting Agreement.

(q) "**Voting Agreement**" means the agreement among the Company, the Purchasers and certain other stockholders of the Company, dated as of the date of the Initial Closing, in the form of Exhibit G attached to this Agreement.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to each Purchaser that, except as set forth on the Disclosure Schedule attached as Exhibit C to this Agreement, which exceptions shall be deemed to be part of the representations and warranties made hereunder, the following representations are true and complete as of the date of the Initial Closing, except as otherwise indicated. The Disclosure Schedule shall be arranged in sections corresponding to the numbered and lettered sections and subsections contained in this Section 2, and the disclosures in any section or subsection of the Disclosure Schedule shall qualify other sections and subsections in this Section 2 only to the extent it is readily apparent from a reading of the disclosure that such disclosure is applicable to such other sections and subsections.

For purposes of these representations and warranties (other than those in Subsections 2.2, 2.3, 2.4, 2.5 and 2.6), the term the "**Company**" shall include any subsidiaries of the Company, unless otherwise noted herein.

2.1 Organization, Good Standing, Corporate Power and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power and authority to carry on its business as presently conducted and as proposed to be conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify would have a Material Adverse Effect.

2.2 Capitalization.

(a) The authorized capital of the Company consists, immediately prior to the Initial Closing, of:

(i) 15,071,428 shares of common stock, $0.00001 par value per share (the "**Common Stock**"), 9,000,000 shares of which are issued and outstanding immediately prior to the Initial Closing. All of the outstanding shares of Common Stock have been duly authorized, are fully paid and nonassessable and were issued in compliance with all applicable federal and state securities laws.

(ii) 4,017,857 shares of Preferred Stock, of which 3,125,000 shares have been designated Series A-1 Preferred Stock, all of which are issued and outstanding, and 892,857 shares have been designated Series A-2 Preferred Stock, none of which are issued and outstanding immediately prior to the Initial Closing. The rights, privileges and preferences of the Preferred Stock are as stated in the Restated Certificate and as provided by the Delaware General Corporation Law.

(b) The Company has reserved 2,000,000 shares of Common Stock for issuance to officers, directors, employees and consultants of the Company pursuant to its 2014 Equity Incentive Plan duly adopted by the Board of Directors and approved by the Company stockholders (the "**Stock Plan**"). Of such reserved shares of Common Stock, zero (0) shares have been issued pursuant to restricted stock purchase agreements, options to purchase 270,000 shares have been granted and are currently outstanding, and 1,730,000 shares of Common Stock remain available for issuance to officers, directors, employees and consultants pursuant to the Stock Plan. The Company has furnished to the Purchasers complete and accurate copies of the Stock Plan and forms of agreements used thereunder.

(c) Except for (A) the conversion privileges of the Shares to be issued under this Agreement, (B) the rights provided in Section 4 of the Investors' Rights Agreement, (C) the exercise rights of the Warrants, and (D) the securities and rights described in Subsection 2.2(b) of this Agreement and Subsection 2.2(c) of the Disclosure Schedule, there are no outstanding options, warrants, rights (including conversion or preemptive rights and rights of first refusal or similar rights) or agreements, orally or in writing, to purchase or acquire from the Company any shares of Common Stock or Preferred Stock, or any securities convertible into or exchangeable for shares of Common Stock or Preferred Stock. All outstanding shares of the Company's Common Stock and all shares of the Company's Common Stock underlying outstanding options are subject to a lock-up or market standoff agreement of not less than one hundred eighty (180) days following the Company's initial public offering pursuant to a registration statement filed with the Securities and Exchange Commission under the Securities Act.

(d) None of the Company's stock purchase agreements or stock option documents contains a provision for acceleration of vesting (or lapse of a repurchase right) or other changes in the vesting provisions or other terms of such agreement or understanding upon the occurrence of any event or combination of events, including without limitation in the case where the Stock Plan is not assumed in an acquisition. The Company has never adjusted or amended the exercise price of any stock options previously awarded, whether through amendment, cancellation, replacement grant, repricing, or any other means. Except as set forth in the Restated Certificate, the Company has no obligation (contingent or otherwise) to purchase or redeem any of its capital stock.

2.3 Subsidiaries. Except for SeqLL, LLC, a limited liability company organized under the laws of Massachusetts (the "**Subsidiary**"), the Company does not currently own or control, directly or indirectly, any interest in any other corporation, partnership, trust, joint venture, limited liability company, association, or other business entity. The Company is not a participant in any joint venture, partnership or similar arrangement. The Subsidiary is duly organized and validly existing and in good standing under the laws of the Massachusetts and has all requisite corporate power and authority to carry on its business as presently conducted and as proposed to be conducted. The Company owns all of the issued and outstanding membership interests of the Subsidiary.

2.4 Authorization. All corporate action required to be taken by the Company's Board of Directors and stockholders in order to authorize the Company to enter into the Transaction Agreements, and to issue the Securities at the Initial Closing and the Common Stock issuable upon conversion of the Shares and exercise of the Warrants, has been taken or will be taken prior to the Initial Closing. All action on the part of the officers of the Company necessary for the execution and delivery of the Transaction Agreements, the performance of all obligations of the Company under the Transaction Agreements to be performed as of the Initial Closing, and the issuance and delivery of the Securities has been taken or will be taken prior to the Initial Closing. The Transaction Agreements, when executed and delivered by the Company, shall constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms except (i) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance, or other laws of general application relating to or affecting the enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief, or other equitable remedies, or (iii) to the extent the indemnification provisions contained in the Investors' Rights Agreement and the Indemnification Agreement may be limited by applicable federal or state securities laws.

2.5 Valid Issuance of Shares. The Shares and Warrants, when issued, sold and delivered in accordance with the terms and for the consideration set forth in this Agreement, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable state and federal securities laws and liens or encumbrances created by or imposed by a Purchaser. Assuming the accuracy of the representations and warranties of the Purchasers in Section 3 of this Agreement and subject to the filings described in Subsection 2.6(ii) below, the Shares and Warrants will be issued in compliance with all applicable federal and state securities laws. The Common Stock issuable upon conversion of the Shares has been duly reserved for issuance, and upon issuance in accordance with the terms of the Restated Certificate, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable federal and state securities laws and liens or encumbrances created by or imposed by a Purchaser. The Common Stock issuable upon exercise of the Warrants has been duly reserved for issuance, and upon issuance in accordance with the terms of the Warrants, will be validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under the Transaction Agreements, applicable federal and state securities laws and liens or encumbrances created by or imposed by a Purchaser. Based in part upon the representations and warranties of the Purchasers in Section 3 of this Agreement, and subject to Subsection 2.6 below, the Common Stock issuable upon conversion of the Shares and exercise of the Warrants will be issued in compliance with all applicable federal and state securities laws.

2.6 Governmental Consents and Filings. Assuming the accuracy of the representations and warranties made by the Purchasers in Section 3 of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority is required on the part of the Company in connection with the consummation of the transactions contemplated by this Agreement, except for (i) the filing of the Restated Certificate, which will have been filed as of the Initial Closing, and (ii) filings pursuant to Regulation D of the Securities Act, and applicable state securities laws, which have been made or will be made in a timely manner.

2.7 Litigation. There is no claim, action, suit, proceeding, arbitration, complaint, charge or investigation pending or to the Company's knowledge, currently threatened in writing against the Company or any officer, director or Key Employee of the Company, to the Company's knowledge, arising out of their employment or board relationship with the Company that questions the validity of the Transaction Agreements or the right of the Company to enter into them, or to consummate the transactions contemplated by the Transaction Agreements. Neither the Company nor, to the Company's knowledge, any of its officers, directors or Key Employees is a party or is named as subject to the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality (in the case of officers, directors or Key Employees, such as would affect the Company). There is no action, suit, proceeding or investigation by the Company pending or which the Company intends to initiate.

2.8 Intellectual Property. To its knowledge (but without having conducted any special investigation or patent or trademark search), the Company owns or possesses or believes it can acquire on commercially reasonable terms sufficient legal rights to all Company Intellectual Property without any known conflict with, or infringement of, the rights of others. To the Company's knowledge, no product or service marketed or sold (or proposed to be marketed or sold) by the Company violates or will violate any license or infringes or will infringe any intellectual property rights of any other party. Other than with respect to commercially available software products under standard end-user object code license agreements, there are no outstanding options, licenses, agreements, claims, encumbrances or shared ownership interests of any kind relating to the Company Intellectual Property, nor is the Company bound by or a party to any options, licenses or agreements of any kind with respect to the patents, trademarks, service marks, trade names, copyrights, trade secrets, licenses, information, proprietary rights and processes of any other Person. The Company has not received any communications alleging that the Company has violated, or by conducting its business, would violate any of the patents, trademarks, service marks, tradenames, copyrights, trade secrets, mask works or other proprietary rights or processes of any other Person. The Company has obtained and possesses valid licenses to use all of the software programs present on the computers and other software-enabled electronic devices that it owns or leases or that it has otherwise provided to its employees for their use in connection with the Company's business. To the Company's knowledge, it will not be necessary to use any inventions of any of its employees or consultants (or Persons it currently intends to hire) made prior to their employment by the Company. Each employee and consultant has assigned to the Company all intellectual property rights he or she owns that are related to the Company's business as now conducted and as presently proposed to be conducted. Subsection 2.8 of the Disclosure Schedule lists all patents, patent applications, trademarks, trademark applications, service marks, service mark applications, tradenames, copyrights, and licenses to and under any of the foregoing. The Company has not embedded any open source, copyleft or community source code in any of its products generally available or in development, including but not limited to any libraries or code licensed under any General Public License, Lesser General Public License or similar license arrangement. For purposes of this Subsection 2.8, the Company shall be deemed to have knowledge of a patent right if the Company has actual knowledge of the patent right or would be found to be on notice of such patent right as determined by reference to United States patent laws.

2.9 Compliance with Other Instruments. The Company is not in violation or default (i) of any provisions of its Restated Certificate or Bylaws, (ii) of any instrument, judgment, order, writ or decree, (iii) under any note, indenture or mortgage, or (iv) under any lease, agreement, contract or purchase order to which it is a party or by which it is bound that is required to be listed on the Disclosure Schedule, or (v) to its knowledge, of any provision of federal or state statute, rule or regulation applicable to the Company, the violation of which would have a Material Adverse Effect. The execution, delivery and performance of the Transaction Agreements and the consummation of the transactions contemplated by the Transaction Agreements will not result in any such violation or be in conflict with or constitute, with or without the passage of time and giving of notice, either (i) a default under any such provision, instrument, judgment, order, writ, decree, contract or agreement; or (ii) an event which results in the creation of any lien, charge or encumbrance upon any assets of the Company or the suspension, revocation, forfeiture, or nonrenewal of any material permit or license applicable to the Company.

2.10 Agreements; Actions.

(a) Except for the Transaction Agreements, there are no agreements, understandings, instruments, contracts or proposed transactions to which the Company is a party or by which it is bound that involve (i) obligations (contingent or otherwise) of, or payments to, the Company in excess of $50,000, (ii) the license of any patent, copyright, trademark, trade secret or other proprietary right to or from the Company, (iii) the grant of rights to manufacture, produce, assemble, license, market, or sell its products to any other Person that limit the Company's exclusive right to develop, manufacture, assemble, distribute, market or sell its products, or (iv) indemnification by the Company with respect to infringements of proprietary rights.

(b) The Company has not (i) declared or paid any dividends, or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or incurred any other liabilities individually in excess of $50,000 or in excess of $100,000 in the aggregate, (iii) made any loans or advances to any Person, other than ordinary advances for travel expenses, or (iv) sold, exchanged or otherwise disposed of any of its assets or rights, other than the sale of its inventory in the ordinary course of business. For the purposes of (b) and (c) of this Subsection 2.10, all indebtedness, liabilities, agreements, understandings, instruments, contracts and proposed transactions involving the same Person (including Persons the Company has reason to believe are affiliated with each other) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsection.

(c) The Company is not a guarantor or indemnitor of any indebtedness of any other Person.

2.11 Certain Transactions.

(a) Other than (i) standard employee benefits generally made available to all employees, (ii) standard director and officer indemnification agreements approved by the Board of Directors, and (iii) the purchase of shares of the Company's capital stock and the issuance of options to purchase shares of the Company's Common Stock, in each instance, approved in the written minutes of the Board of Directors (previously provided to the Purchasers or their counsel), there are no agreements, understandings or proposed transactions between the Company and any of its officers, directors, consultants or Key Employees, or any Affiliate thereof.

(b) The Company is not indebted, directly or indirectly, to any of its directors, officers or employees or to their respective spouses or children or to any Affiliate of any of the foregoing, other than in connection with expenses or advances of expenses incurred in the ordinary course of business or employee relocation expenses and for other customary employee benefits made generally available to all employees. None of the Company's directors, officers or employees, or any members of their immediate families, or any Affiliate of the foregoing are, directly or indirectly, indebted to the Company or, to the Company's knowledge, have any (i) material commercial, industrial, banking, consulting, legal, accounting, charitable or familial relationship with any of the Company's customers, suppliers, service providers, joint venture partners, licensees and competitors, (ii) direct or indirect ownership interest in any firm or corporation with which the Company is affiliated or with which the Company has a business relationship, or any firm or corporation which competes with the Company except that directors, officers, employees or stockholders of the Company may own stock in (but not exceeding two percent (2%) of the outstanding capital stock of) publicly traded companies that may compete with the Company; or (iii) financial interest in any material contract with the Company.

2.12 Rights of Registration and Voting Rights. Except as provided in the Investors' Rights Agreement, the Company is not under any obligation to register under the Securities Act any of its currently outstanding securities or any securities issuable upon exercise or conversion of its currently outstanding securities. To the Company's knowledge, except as contemplated in the Voting Agreement, no stockholder of the Company has entered into any agreements with respect to the voting of capital shares of the Company.

2.13 Financial Statements. The Company has delivered to each Purchaser its unaudited financial statements (collectively, the "**Financial Statements**"). for the fiscal years ended December 31, 2013, December 31, 2014 and December 31, 2015. The Financial Statements have been prepared in accordance with generally accepted accounting principles ("**GAAP**") applied on a consistent basis throughout the periods indicated, except that the Financial Statements may not contain all footnotes required by GAAP. The Financial Statements fairly present in all material respects the financial condition and operating results of the Company as of the dates, and for the periods, indicated therein, subject in the case of the unaudited Financial Statements to normal year-end audit adjustments. Except as set forth in the Financial Statements, the Company has no material liabilities or obligations, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to December 31, 2015; (ii) obligations under contracts and commitments incurred in the ordinary course of business; and (iii) liabilities and obligations of a type or nature not required under GAAP to be reflected in the Financial Statements, which, in all such cases, individually and in the aggregate would not have a Material Adverse Effect. The Company maintains and will continue to maintain a standard system of accounting established and administered in accordance with GAAP.

2.14 Changes. To the Company's knowledge, since December 31, 2015, there have been no events or circumstances of any kind that have had or could reasonably be expected to result in a Material Adverse Effect, except for events effecting the economy and the Company's industry generally.

2.15 Employee Matters.

(a) To the Company's knowledge, none of its employees is obligated under any contract (including licenses, covenants or commitments of any nature) or other agreement, or subject to any judgment, decree or order of any court or administrative agency, that would materially interfere with such employee's ability to promote the interest of the Company or that would conflict with the Company's business. Neither the execution or delivery of the Transaction Agreements, nor the carrying on of the Company's business by the employees of the Company, nor the conduct of the Company's business as now conducted and as presently proposed to be conducted, will, to the Company's knowledge, conflict with or result in a breach of the terms, conditions, or provisions of, or constitute a default under, any contract, covenant or instrument under which any such employee is now obligated.

(b) The Company is not delinquent in payments to any of its employees, consultants, or independent contractors for any wages, salaries, commissions, bonuses, or other direct compensation for any service performed for it to the date hereof or amounts required to be reimbursed to such employees, consultants or independent contractors. The Company has complied in all material respects with all applicable state and federal equal employment opportunity laws and with other laws related to employment, including those related to wages, hours, worker classification and collective bargaining. The Company has withheld and paid to the appropriate governmental entity or is holding for payment not yet due to such governmental entity all amounts required to be withheld from employees of the Company and is not liable for any arrears of wages, taxes, penalties or other sums for failure to comply with any of the foregoing.

(c) To the Company's knowledge, no Key Employee intends to terminate employment with the Company or is otherwise likely to become unavailable to continue as a Key Employee, nor does the Company have a present intention to terminate the employment of any of the foregoing. The employment of each employee of the Company is terminable at the will of the Company. Except as set forth in Subsection 2.15 of the Disclosure Schedule or as required by law, upon termination of the employment of any such employees, no severance or other payments will become due. Except as set forth in Subsection 2.15 of the Disclosure Schedule, the Company has no policy, practice, plan or program of paying severance pay or any form of severance compensation in connection with the termination of employment services.

2.16 Tax Returns and Payments. There are no federal, state, county, local or foreign taxes due and payable by the Company which have not been timely paid. There are no accrued and unpaid federal, state, country, local or foreign taxes of the Company which are due, whether or not assessed or disputed. There have been no examinations or audits of any tax returns or reports by any applicable federal, state, local or foreign governmental agency. The Company has duly and timely filed all federal, state, county, local and foreign tax returns required to have been filed by it and there are in effect no waivers of applicable statutes of limitations with respect to taxes for any year.

2.17 [Intentionally Omitted].

2.18 Employee Agreements. Each current and former employee, consultant and officer of the Company has executed an agreement with the Company regarding confidentiality and proprietary information substantially in the form or forms delivered to the counsel for the Purchasers (the "**Confidential Information Agreements**"). No current or former Key Employee has excluded works or inventions from his or her assignment of inventions pursuant to such Key Employee's Confidential Information Agreement. The Company is not aware that any of its Key Employees is in violation of any agreement covered by this Subsection 2.18.

2.19 Permits. The Company has all franchises, permits, licenses and any similar authority necessary for the conduct of its business, the lack of which could reasonably be expected to have a Material Adverse Effect. The Company is not in default in any material respect under any of such franchises, permits, licenses or other similar authority.

2.20 Corporate Documents. The Restated Certificate and Bylaws of the Company are in the form provided to the Purchasers. The copy of the minute books of the Company provided to the Purchasers contains minutes of all meetings of directors and stockholders and all actions by written consent without a meeting by the directors and stockholders since the date of incorporation and accurately reflects in all material respects all actions by the directors (and any committee of directors) and stockholders with respect to all transactions referred to in such minutes.

3. Representations and Warranties of the Purchasers. Each Purchaser hereby represents and warrants to the Company, severally and not jointly, that:

3.1 Authorization. The Purchaser has full power and authority to enter into the Transaction Agreements. The Transaction Agreements to which the Purchaser is a party, when executed and delivered by the Purchaser, will constitute valid and legally binding obligations of the Purchaser, enforceable in accordance with their terms, except (a) as limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance and any other laws of general application affecting enforcement of creditors' rights generally, and as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies, or (b) to the extent the indemnification provisions contained in the Investors' Rights Agreement may be limited by applicable federal or state securities laws.

3.2 Purchase Entirely for Own Account. This Agreement is made with the Purchaser in reliance upon the Purchaser's representation to the Company, which by the Purchaser's execution of this Agreement, the Purchaser hereby confirms, that the Shares and Warrants to be acquired by the Purchaser will be acquired for investment for the Purchaser's own account, not as a nominee or agent, and not with a view to the resale or distribution of any part thereof, and that the Purchaser has no present intention of selling, granting any participation in, or otherwise distributing the same. By executing this Agreement, the Purchaser further represents that the Purchaser does not presently have any contract, undertaking, agreement or arrangement with any Person to sell, transfer or grant participations to such Person or to any third Person, with respect to any of the Shares or Warrants. The Purchaser has not been formed for the specific purpose of acquiring the Shares and Warrants.

3.3 Disclosure of Information. The Purchaser has had an opportunity to discuss the Company's business, management, financial affairs and the terms and conditions of the offering of the Shares and Warrants with the Company's management and has had an opportunity to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Purchasers to rely thereon.

3.4 Restricted Securities. The Purchaser understands that neither the Shares nor the Warrants have been, nor will be, registered under the Securities Act, by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent and the accuracy of the Purchaser's representations as expressed herein. The Purchaser understands that the Securities are "restricted securities" under applicable U.S. federal and state securities laws and that, pursuant to these laws, the Purchaser must hold the Securities indefinitely unless they are registered with the Securities and Exchange Commission and qualified by state authorities, or an exemption from such registration and qualification requirements is available. The Purchaser acknowledges that the Company has no obligation to register or qualify the Securities, or the Common Stock into which they may be converted or exercise, for resale except as set forth in the Investors' Rights Agreement. The Purchaser further acknowledges that if an exemption from registration or qualification is available, it may be conditioned on various requirements including, but not limited to, the time and manner of sale, the holding period for the Securities, and on requirements relating to the Company which are outside of the Purchaser's control, and which the Company is under no obligation and may not be able to satisfy.

3.5 No Public Market. The Purchaser understands that no public market now exists for the Securities, and that the Company has made no assurances that a public market will ever exist for the Securities.

3.6 Legends. The Purchaser understands that the Securities and any securities issued in respect of or exchange for the Securities, may be notated with one or all of the following legends:

(a) "THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AND HAVE BEEN ACQUIRED FOR INVESTMENT AND NOT WITH A VIEW TO, OR IN CONNECTION WITH, THE SALE OR DISTRIBUTION THEREOF. NO SUCH TRANSFER MAY BE EFFECTED WITHOUT AN EFFECTIVE REGISTRATION STATEMENT RELATED THERETO OR AN OPINION OF COUNSEL IN A FORM SATISFACTORY TO THE COMPANY THAT SUCH REGISTRATION IS NOT REQUIRED UNDER THE SECURITIES ACT OF 1933."

(b) Any legend set forth in, or required by, the other Transaction Agreements.

(c) Any legend required by the securities laws of any state to the extent such laws are applicable to the Securities represented by the certificate, instrument, or book entry so legended.

3.7 Accredited Investor. The Purchaser is an accredited investor as defined in Rule 501(a) of Regulation D promulgated under the Securities Act.

3.8 Foreign Investors. If the Purchaser is not a United States person (as defined by Section 7701(a)(30) of the Code), the Purchaser hereby represents that it has satisfied itself as to the full observance of the laws of its jurisdiction in connection with any invitation to subscribe for the Securities or any use of this Agreement, including (i) the legal requirements within its jurisdiction for the purchase of the Securities, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained, and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale, or transfer of the Securities. The Purchaser's subscription and payment for and continued beneficial ownership of the Securities will not violate any applicable securities or other laws of the Purchaser's jurisdiction.

3.9 No General Solicitation. Neither the Purchaser, nor any of its officers, directors, employees, agents, stockholders or partners has either directly or indirectly, including, through a broker or finder (a) engaged in any general solicitation, or (b) published any advertisement in connection with the offer and sale of the Securities.

3.10 Exculpation Among Purchasers. The Purchaser acknowledges that it is not relying upon any Person, other than the Company and its officers and directors, in making its investment or decision to invest in the Company.

3.11 Residence. If the Purchaser is an individual, then the Purchaser resides in the state or province identified in the address of the Purchaser set forth on Exhibit A; if the Purchaser is a partnership, corporation, limited liability company or other entity, then the office or offices of the Purchaser in which its principal place of business is identified in the address or addresses of the Purchaser set forth on Exhibit A.

4. Conditions to the Purchasers' Obligations at Closing. The obligations of each Purchaser to purchase Shares at the Initial Closing or any subsequent Closing are subject to the fulfillment, on or before such Closing, of each of the following conditions, unless otherwise waived:

4.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true and correct in all respects as of such Initial Closing.

4.2 Performance. The Company shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by the Company on or before such Closing.

4.3 Compliance Certificate. The Chief Executive Officer of the Company shall deliver to the Purchasers at the Initial Closing a certificate certifying that the conditions specified in Subsections 4.1 and 4.2 have been fulfilled.

4.4 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Securities pursuant to this Agreement shall be obtained and effective as of such Closing.

4.5 Board of Directors. As of the Initial Closing, the authorized size of the Board shall be three, and the Board shall be comprised of Daniel Jones, William St. Laurent and Douglas Miscoll.

4.6 Indemnification Agreement. The Company shall have executed and delivered the Indemnification Agreements.

4.7 Investors' Rights Agreement. The Company and each Purchaser (other than the Purchaser relying upon this condition to excuse such Purchaser's performance hereunder) and the other stockholders of the Company named as parties thereto shall have executed and delivered the Amended and Restated Investors' Rights Agreement.

4.8 Right of First Refusal and Co-Sale Agreement. The Company, each Purchaser (other than the Purchaser relying upon this condition to excuse such Purchaser's performance hereunder), and the other stockholders of the Company named as parties thereto shall have executed and delivered the Amended and Restated Right of First Refusal and Co-Sale Agreement.

4.9 Voting Agreement. The Company, each Purchaser (other than the Purchaser relying upon this condition to excuse such Purchaser's performance hereunder), and the other stockholders of the Company named as parties thereto shall have executed and delivered the Amended and Restated Voting Agreement.

4.10 Restated Certificate. The Company shall have filed the Restated Certificate with the Secretary of State of Delaware on or prior to the Closing, which shall continue to be in full force and effect as of the Closing.

4.11 Secretary's Certificate. The Secretary of the Company shall have delivered to the Purchasers at the Initial Closing a certificate certifying (i) the Bylaws of the Company, (ii) resolutions of the Board of Directors of the Company approving the Transaction Agreements and the transactions contemplated under the Transaction Agreements, and (iii) resolutions of the stockholders of the Company approving the Restated Certificate.

4.12 Stock Plan. An additional 1,000,000 shares of Common Stock shall have duly reserved under and for future issuance under the Stock Plan, resulting in there being an aggregate of 2,000,000 shares of Common Stock reserved under the Stock Plan.

4.13 Warrants. The Company shall have executed and delivered a Warrant to the Purchase in accordance with the provisions hereof.

4.14 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing and all documents incident thereto shall be reasonably satisfactory in form and substance to each Purchaser, and each Purchaser (or its counsel) shall have received all such counterpart original and certified or other copies of such documents as reasonably requested. Such documents may include good standing certificates.

5. Conditions of the Company's Obligations at Closing. The obligations of the Company to sell Securities to the Purchasers at a Closing are subject to the fulfillment, on or before such Closing, of each of the following conditions, unless otherwise waived:

5.1 Representations and Warranties. The representations and warranties of each Purchaser contained in Section 3 shall be true and correct in all respects as of such Closing.

5.2 Performance. The Purchasers shall have performed and complied with all covenants, agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by them on or before such Closing.

5.3 Qualifications. All authorizations, approvals or permits, if any, of any governmental authority or regulatory body of the United States or of any state that are required in connection with the lawful issuance and sale of the Securities pursuant to this Agreement shall be obtained and effective as of the Closing.

5.4 Investors' Rights Agreement. Each Purchaser shall have executed and delivered the Amended and Restated Investors' Rights Agreement.

5.5 Right of First Refusal and Co-Sale Agreement. Each Purchaser and the other stockholders of the Company named as parties thereto shall have executed and delivered the Amended and Restated Right of First Refusal and Co-Sale Agreement.

5.6 Voting Agreement. Each Purchaser and the other stockholders of the Company named as parties thereto shall have executed and delivered the Amended and Restated Voting Agreement.

6. Miscellaneous.

6.1 Survival of Warranties. Unless otherwise set forth in this Agreement, the representations and warranties of the Company and the Purchasers contained in or made pursuant to this Agreement shall survive the execution and delivery of this Agreement and the Closing and shall in no way be affected by any investigation or knowledge of the subject matter thereof made by or on behalf of the Purchasers or the Company.

6.2 Successors and Assigns. The terms and conditions of this Agreement shall inure to the benefit of and be binding upon the respective successors and assigns of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement.

6.3 Governing Law. This Agreement and any controversy arising out of or relating to this Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

6.4 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

6.5 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.6 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt, or (a) personal delivery to the party to be notified, (b) when sent, if sent by electronic mail or facsimile during normal business hours of the recipient, and if not sent during normal business hours, then on the recipient's next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) business day after deposit with a nationally recognized overnight courier, freight prepaid, specifying next business day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their address as set forth on the signature page or Exhibit A, or to such e-mail address, facsimile number or address as subsequently modified by written notice given in accordance with this Subsection 6.6. If notice is given to the Company, a copy shall also be sent to Foley & Lardner, LLP, 975 Page Mill Road, Palo Alto, CA 9430, Attn: E. Thom Rumberger Jr., Esq.

6.7 No Finder's Fees. Each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. Each Purchaser agrees to indemnify and to hold harmless the Company from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which each Purchaser or any of its officers, employees or representatives is responsible. The Company agrees to indemnify and hold harmless each Purchaser from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible.

6.8 Attorneys' Fees. If any action at law or in equity (including, arbitration) is necessary to enforce or interpret the terms of any of the Transaction Agreements, the prevailing party shall be entitled to reasonable attorneys' fees, costs and necessary disbursements in addition to any other relief to which such party may be entitled.

6.9 Amendments and Waivers. Except as set forth in Subsection 1.3 of this Agreement, any term of this Agreement may be amended, terminated or waived only with the written consent of the Company, and (i) the holders of a majority of the then-outstanding Shares, or (ii) for an amendment, termination or waiver effected prior to the Initial Closing, Purchasers obligated to purchase a majority of the Shares to be issued at the Initial Closing. Any amendment or waiver effected in accordance with this Subsection 6.9 shall be binding upon the Purchasers and each transferee of the Shares (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company.

6.10 Severability. The invalidity or unenforceability of any provision hereof shall in no way affect the validity or enforceability of any other provision.

6.11 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power or remedy of such non-breaching or non-defaulting party nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any party of any breach or default under this Agreement, or any waiver on the part of any party of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

6.12 Entire Agreement. This Agreement (including the Exhibits hereto), the Restated Certificate and the other Transaction Agreements constitute the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties are expressly canceled.

6.13 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of the Commonwealth of Massachusetts and to the jurisdiction of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Massachusetts or the United States District Court for the District of Massachusetts, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

IN WITNESS WHEREOF, the parties have executed this Series A-2 Convertible Preferred Stock Purchase Agreement as of the date first written above.

COMPANY:

SEQLL INC.

By: /s/ Elizabeth Reczek
Name: Elizabeth Reczek
Title: Chief Executive Officer

IN WITNESS WHEREOF, the parties have executed this Series A-2 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

Georges C. St. Laurent, III Descendants' Trust

By: /s/ William St. Laurent
Name: William St. Laurent
Title: Trustee
Address: 120 NE 136th Ave, Suite 200
Vancouver, WA 98684

IN WITNESS WHEREOF, the parties have executed this Series A-2 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

William C. St. Laurent Descendants' Trust

By: /s/ William St. Laurent
Name: William St. Laurent
Title: Trustee
Address: 120 NE 136th Ave, Suite 200
Vancouver, WA 98684

IN WITNESS WHEREOF, the parties have executed this Series A-2 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

Tara Partners Fund LLC

By: /s/ John Clements
Name: John Clements
Title: Managing Member
Address: 976 Pequot Ave (P.O. Box 573)
Southport, CT 06890

IN WITNESS WHEREOF, the parties have executed this Series A-2 Convertible Preferred Stock Purchase Agreement as of the date first written above.

PURCHASER:

Templeside Holdings Ltd. – Ellipsis Limited Corporate Director

By:
Name: Martyn Crespel
Title: Director of Ellipsis Limited

By: /s/ Isabelle Spaeth
Name: Isabelle Spaeth
Title: Authorised Signatory of Ellipsis Limited
Address: c/o Ampersand management SA
5 blvd des Philosophes
1205 Geneva Switzerland

EXHIBITS

Exhibit A -	**SCHEDULE OF PURCHASERS**
Exhibit B -	**FORM OF AMENDED AND RESTATED CERTIFICATE OF INCORPORATION**
Exhibit C -	**DISCLOSURE SCHEDULE**
Exhibit D -	**FORM OF INDEMNIFICATION AGREEMENT**
Exhibit E -	**FORM OF AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT**
Exhibit F -	**FORM OF AMENDED AND RESTATED RIGHT OF FIRST REFUSAL AND CO-SALE AGREEMENT**
Exhibit G -	**FORM OF AMENDED AND RESTATED VOTING AGREEMENT**
Exhibit H -	**FORM OF WARRANT**

EXHIBIT A

SCHEDULE OF PURCHASERS

Initial Closing

Name and Address		*Payment in Cash*	*Shares of Series A-2 Preferred Stock*	*Warrants to Purchase Common Stock*
Georges C. St. Laurent, III Descendants' Trust *120 NE 136th Ave, Suite 200* *Vancouver, WA 98684*	$	499,999.92	297,619	17,857
William C. St. Laurent Descendants' Trust *120 NE 136th Ave, Suite 200* *Vancouver, WA 98684*	$	499,999.92	297,619	17,857
Total	$	999,999.84	595,238	35,714

Subsequent Closing on March 25, 2016

Name and Address		*Payment in Cash*	*Shares of Series A-2 Preferred Stock*	*Warrants to Purchase Common Stock*
Tara Partners Fund LLC *976 Pequot Ave. (P.O. Box 573)* *Southport, CT 06890*	$	149,998.80	89,285	5,357
Templeside Holdings Ltd. *Ellipsis Limited, Corporate Director* *c/o Ampersand Management S.A.* *Boulevard des Philosophes 5* *CH – 1205 Geneva*	$	74,998.56	44,642	2,678
Total	$	224,997.36	133,927	

EXHIBIT B

FORM OF AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

EXHIBIT C

DISCLOSURE SCHEDULE

This Schedule of Exceptions is made and given pursuant to Section 2 of the Series A-2 Convertible Preferred Stock Purchase Agreement, dated as of February 19, 2016 (the "Agreement"), between SeqLL Inc. (the "Company") and the Purchasers listed on Schedule A thereto. All capitalized terms used but not defined herein shall have the meanings as defined in the Agreement, unless otherwise provided. The section numbers below correspond to the section numbers of the representations and warranties in the Agreement; provided, however, that any information disclosed herein under any section number shall be deemed to be disclosed and incorporated into any other section number under the Agreement where such disclosure would be appropriate and such appropriateness is reasonably apparent from the face of such disclosure. Nothing in this Schedule of Exceptions is intended to broaden the scope of any representation or warranty contained in the Agreement or to create any covenant. Inclusion of any item in this Schedule of Exceptions (1) does not represent a determination that such item is material or establish a standard of materiality, (2) does not represent a determination that such item did not arise in the ordinary course of business, (3) does not represent a determination that the transactions contemplated by the Agreement require the consent of third parties, and (4) shall not constitute, or be deemed to be, an admission to any third party concerning such item. This Schedule of Exceptions includes brief descriptions or summaries of certain agreements and instruments, copies of which are available upon reasonable request. Such descriptions do not purport to be comprehensive, and are qualified in their entirety by reference to the text of the documents described, true and complete copies of which have been provided to the Investors or their respective counsel.

EXHIBIT D

FORM OF
INDEMNIFICATION AGREEMENT

EXHIBIT E

FORM OF
AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

EXHIBIT F

FORM OF
AMENDED AND RESTATED RIGHT OF FIRST REFUSAL AND
CO-SALE AGREEMENT

EXHIBIT G

FORM OF
AMENDED AND RESTATED VOTING AGREEMENT

EXHIBIT H

FORM OF
WARRANT

Exhibit 10.12

SEQLL INC.

FIRST AMENDMENT TO SERIES A-2 PREFERRED STOCK PURCHASE AGREEMENT

This First Amendment to Series A-2 Preferred Stock Purchase Agreement (this "**Amendment**") is dated as of January 12, 2018, and is made by and among SeqLL Inc., a Delaware corporation (the "**Company**"), and certain purchasers of shares of Series A-2 Preferred Stock of the Company (the "**Purchasers**") pursuant to that certain Series A-2 Preferred Stock Purchase Agreement, dated February 19, 2016, by and among the Company and the Purchasers (as amended to date, the "**Agreement**"). Capitalized terms not otherwise defined herein shall have the meaning given them in the Agreement.

RECITALS

WHEREAS, the Agreement provides that the Company may hold Closings within 90 days after the Closing;

WHEREAS, in connection with entering into this Amendment, the Company and its stockholders have approved an increase in the number of authorized shares of Series A-2 Preferred Stock of the Company to 5,654,762 shares;

WHEREAS, in connection with this Amendment, the Company and the other parties to the Amended and Restated Voting Agreement, dated February 19, 2016, have entered into an Amended and Restated Voting Agreement, dated as of the date hereof (the "**Amended and Restated Voting Agreement**").

WHEREAS, the Agreement provides that the Agreement may be amended upon the written consent of the Company and the holders of a majority of the then-outstanding shares of Series A-2 Preferred Stock of the Company sold thereunder; and

WHEREAS, the Company and the Purchasers hereby desire to amend the Agreement to extend the period in which the Company may hold additional Closings thereunder and increase the total number of shares of Series A-2 Preferred Stock that may be sold pursuant to the terms of the Agreement.

AGREEMENT

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, and other consideration, the receipt and adequacy of which is hereby acknowledged, the Company and the Purchasers hereby agree as follows:

1. **Amendment to Section 1.1(b) of the Agreement**. The Company and the Investors hereby agree that Section 1.1(b) of the Agreement shall be amended and restated in its entirety to read as follows:

> "Subject to the terms and conditions of this Agreement, each Purchaser agrees to purchase at the Closing and the Company agrees to sell and issue to each Purchaser at the Closing that number of shares of Series A-2 Convertible Preferred Stock, $0.00001 par value per share (the **"Series A-2 Preferred Stock**"), set forth opposite each Purchaser's name on Exhibit A, at a purchase price of $1.68 per share; provided, however, that unless otherwise agreed by the Board of Directors of the Company, at each Additional Closing, each Purchaser shall purchase at least 23,810 Additional Shares."

2. **Amendment to Section 1.2(b) of the Agreement**. The Company and the Investors hereby agree that Section 1.2(b) of the Agreement shall be amended and restated in its entirety to read as follows:

"Promptly after each Closing, the Company shall deliver to each Purchaser a certificate representing the Shares being purchased by such Purchaser at such Closing against payment of the purchase price therefor by check payable to the Company, by wire transfer to a bank account designated by the Company, by cancellation or conversion of indebtedness of the Company to Purchaser, including interest, or by any combination of such methods. At the Initial Closing and at the second Closing, the Company shall also deliver to each Purchaser at those first two Closings a warrant, in the form attached to the Agreement as Exhibit H (the "**Warrant**"), entitling the holder to purchase such number of shares of Common Stock ("**Warrant Shares**") as set forth opposite each Purchaser's name on Exhibit A. Each such Warrant shall be exercisable for a number of shares of Common Stock equal to (y) the applicable number of Shares purchased by the Purchaser at the applicable Closing, multiplied by (z) Six Percent (6%), rounded down to the nearest whole share. The exercise price for each Warrant Share shall be equal to $1.68 (as may be adjusted to reflect stock dividends, stock splits, reverse stock splits, combinations, recapitalizations and similar events). For the avoidance of doubt, the Company shall not issue any Warrants for Closings occurring on or after the date of this Amendment."

3. **Amendment to Section 1.3 of the Agreement.** The Company and the Purchasers hereby agree that Section 1.3 of the Agreement shall be amended and restated in its entirety to read as follows:

"After the Initial Closing, the Company may sell, on the same terms and conditions as those contained in this Agreement, up to the balance of the authorized number of shares of Series A-2 Preferred Stock not sold at the Initial Closing (the "**Additional Shares**"), to one or more purchasers (the "**Additional Purchasers**"), provided that (i) such subsequent sale is consummated prior June 30, 2018, (ii) the Company may not sell more than an aggregate 5,059,524 shares of Series A-2 Preferred Stock hereunder after the Initial Closing, and (iii) each Additional Purchaser shall become a party to the Transaction Agreements (as defined below), by executing and delivering a counterpart signature page to each of the Transaction Agreements. Exhibit A to this Agreement shall be updated to reflect the number of Additional Shares purchased at each such Closing and the parties purchasing such Additional Shares."

4. **Amendment to Section 2.2 of the Agreement.** The Company and the Purchasers hereby agree that Section 2.2(a)(i) and (ii) of the Agreement shall be amended and restated in its entirety to read as follows:

"(a) The authorized capital of the Company consists, immediately prior to the date of this Amendment, of:

(i) 20,299,261 shares of common stock, $0.00001 par value per share (the "**Common Stock**"), 9,000,000 shares of which are issued and outstanding immediately prior to the date of this Amendment. All of the outstanding shares of Common Stock have been duly authorized, are fully paid and nonassessable and were issued in compliance with all applicable federal and state securities laws.

(ii) 8,779,762 shares of Preferred Stock, of which 3,125,000 shares have been designated Series A-1 Preferred Stock, all of which are issued and outstanding, and 5,654,762 shares have been designated Series A-2 Preferred Stock, 729,165 of which are issued and outstanding immediately prior to the date of this Amendment. The rights, privileges and preferences of the Preferred Stock are as stated in the Restated Certificate and as provided by the Delaware General Corporation Law."

5. **Amendment to Section 6.7 of the Agreement.** The Company and the Purchasers hereby agree that Section 6.7 of the Agreement shall be amended and restated in its entirety to read as follows:

> "No Finder's Fees. Except as set forth on Subsection 6.7 of the Disclosure Schedule, each party represents that it neither is nor will be obligated for any finder's fee or commission in connection with this transaction. Each Purchaser agrees to indemnify and to hold harmless the Company from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which each Purchaser or any of its officers, employees or representatives is responsible. The Company agrees to indemnify and hold harmless each Purchaser from any liability for any commission or compensation in the nature of a finder's or broker's fee arising out of this transaction (and the costs and expenses of defending against such liability or asserted liability) for which the Company or any of its officers, employees or representatives is responsible."

6. **Miscellaneous.**

(a) *Governing Law*. This Amendment shall be governed in all respects by the internal laws of the State of Delaware, without regard to principles of conflicts of law.

(b) *Successors and Assigns.* The provisions hereof shall inure to the benefit of the parties and their respective successors, administrators, executors, representatives and heirs.

(c) *Entire Agreement*. This Amendment and the Agreement constitute the full and entire agreement between the parties with regard to the subject matter hereof.

(d) *Counterparts*. This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

(Signature Page Follows)

IN WITNESS WHEREOF, this First Amendment to Series A-2 Preferred Stock Purchase Agreement is executed as of the date first above written.

SEQLL INC.

By: /s/ Elizabeth Reczek
Name: Elizabeth Reczek
Title: Chief Executive Officer

(***Signature Page to the First Amendment to Series A-2 Preferred Stock Purchase Agreement***)

IN WITNESS WHEREOF, this First Amendment to Series A-2 Preferred Stock Purchase Agreement is executed as of the date first above written.

PURCHASER:

Georges C. St. Laurent, III Descendants' Trust

By: /s/ William St. Laurent
Name: William St. Laurent
Title: Trustee
Address: 120 NE 136th Ave, Suite 200
Vancouver, WA 98684

(Signature Page to the First Amendment to Series A-2 Preferred Stock Purchase Agreement)

IN WITNESS WHEREOF, this First Amendment to Series A-2 Preferred Stock Purchase Agreement is executed as of the date first above written.

PURCHASER:

William C. St. Laurent Descendants' Trust

By: /s/ William St. Laurent
Name: William St. Laurent
Title: Trustee
Address: 120 NE 136th Ave, Suite 200
Vancouver, WA 98684

(*Signature Page to the First Amendment to Series A-2 Preferred Stock Purchase Agreement*)

Exhibit 21.1

Subsidiaries of the Registrant

None.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the use in this Registration Statement on Form S-1 of SeqLL Inc. of our report dated April 22, 2019, relating to the consolidated financial statements of SeqLL Inc., appearing in the Prospectus, which is part of this Registration Statement.

We also consent to the reference to our firm under the heading “Experts” in such Prospectus.

/s/ Wolf & Company, P.C.

Wolf & Company, P.C.
Boston, Massachusetts
April 22, 2019