UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2018

OR

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

Commission File Number 001-37918

iRhythm Technologies, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware	**20-8149544**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
650 Townsend Street, Suite 500 San Francisco, California	**94103**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (415) 632-5700

Securities registered pursuant to Section 12(b) of the Act: Common Stock, Par Value $.0001 Per Share; Common stock traded on the NASDAQ stock market

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

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES ☒ NO ☐

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES ☐ NO ☒

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

Indicate by check mark whether the Registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the Registrant was required to submit and post such files). YES ☒ NO ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405) is not contained herein, and will not be contained, to the best of Registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Small reporting company	☐
Emerging growth company	☐		

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

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES ☐ NO ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant, based on the closing price of the shares of common stock on The NASDAQ Stock Market on June 29, 2018, was approximately $1,743.2 million.

The number of shares of Registrant's Common Stock outstanding as of February 22, 2019 was 24,463,561.

DOCUMENTS INCORPORATED BY REFERENCE:

Portions of the information called for by Part III of this Form 10-K is hereby incorporated by reference from the definitive Proxy Statements for our annual meeting of stockholders, which will be filed with the Securities and Exchange Commission not later than 120 days after December 31, 2018.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements concerning our business, operations and financial performance and condition, as well as our plans, objectives and expectations for our business, operations and financial performance and condition. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements. In some cases, you can identify forward-looking statements by terminology such as "anticipate," "assume," "believe," "contemplate," "continue," "could," "due," "estimate," "expect," "goal," "intend," "may," "objective," "plan," "predict," "potential," "positioned," "seek," "should," "target," "will," "would" and other similar expressions that are predictions of or indicate future events and future trends, or the negative of these terms or other comparable terminology. These forward-looking statements include, but are not limited to, statements about:

- plans to conduct further clinical studies
- our plans to modify our current products, or develop new products, to address additional indications
- the expected growth of our business and our organization
- our expectations regarding government and third-party payor coverage and reimbursement
- our expectations regarding the size of our sales organization and expansion of our sales and marketing efforts in international geographies
- our expectations regarding revenue, cost of revenue, cost of service per device, operating expenses, including research and development expense, sales and marketing expense and general and administrative expenses
- our ability to retain and recruit key personnel, including the continued development of a sales and marketing infrastructure
- our ability to obtain and maintain intellectual property protection for our products
- our estimates of our expenses, ongoing losses, future revenue, capital requirements and our needs for, or ability to obtain, additional financing
- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act
- our ability to identify and develop new and planned products and acquire new products
- our financial performance
- developments and projections relating to our competitors or our industry

We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. These forward-looking statements are based on management's current expectations, estimates, forecasts and projections about our business and the industry in which we operate and management's beliefs and assumptions and are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this Annual Report on Form 10-K may turn out to be inaccurate. Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under "Risk Factors" and elsewhere in this Annual Report on Form 10-K. Potential investors are urged to consider these factors carefully in evaluating the forward-looking statements. These forward-looking statements speak only as of the date of this Annual Report on Form 10-K. We assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this Annual Report on Form 10-K to conform these statements to actual results or to changes in our expectations.

You should read this Annual Report on Form 10-K and the documents that we reference in this Annual Report on Form 10-K and have filed with the SEC as exhibits to the Annual Report on Form 10-K with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

PART I

Item 1. Business.

Overview

We are a digital healthcare company redefining the way cardiac arrhythmias are clinically diagnosed by combining our wearable biosensing technology with cloud-based data analytics and deep-learning capabilities. Our goal is to be the leading provider of ambulatory electrocardiogram ("ECG") monitoring for patients at risk for arrhythmias. We have created a full portfolio of ambulatory cardiac monitoring services on a unique platform, called the Zio service, which combines an easy-to-wear and unobtrusive biosensor that can be worn for up to 14 consecutive days with powerful proprietary algorithms that distill data from millions of heartbeats into clinically actionable information. We believe that the Zio service allows physicians to diagnose many arrhythmias more quickly and efficiently than traditional technologies and avoid multiple indeterminate tests. Early detection of heart rhythm disorders, such as atrial fibrillation ("AF") and other clinically relevant arrhythmias, allows for appropriate medical intervention and helps avoid more serious downstream medical events, including stroke. Since receiving clearance from the Food and Drug Administration ("FDA") in 2009, we have provided the Zio service to over one million patients and have collected approximately 400 million hours of curated heartbeat data, creating what we believe to be the world's largest repository of ambulatory ECG patient data. This data provides us with a competitive advantage by informing our proprietary deep-learned algorithms, which may enable operating efficiencies, gross margin improvement and business scalability. We believe the Zio service is well aligned with the goals of the U.S. healthcare system: improving population health, enhancing the patient care experience and reducing per-capita cost.

According to the Centers for Disease Control and Prevention, approximately 11 million patients in the United States have a heart rhythm disorder, or arrhythmia. The most common sustained type of arrhythmia is AF. The American Heart Association ("AHA"), estimates that as many as six million people in the United States have AF and individuals with AF are five times more likely to suffer a stroke. However, the National Stroke Association ("NSA") estimates that up to 80% of strokes suffered by people with AF are preventable with early detection and proper treatment.

The ambulatory cardiac monitoring market is well-established with an estimated 4.6 million diagnostic tests performed annually in the United States, which we believe to be an existing $1.8 billion market opportunity for our Zio service. Traditional ambulatory cardiac monitoring tools used by physicians for diagnosing patients with suspected arrhythmias, such as Holter and cardiac event monitors, are constrained by one or more of the following: short prescribed monitoring times, non-continuous data collection and reporting, cumbersome equipment and low patient compliance. As an example of these traditional constraints, patients often remove these traditional monitors when sleeping, showering or exercising, leading to failure to capture critical data. These limitations contribute to incomplete diagnoses and repeat testing, which in turn result in suboptimal patient care and higher costs to the health system.

While some existing products may address a subset of these limitations, we believe the Zio service provides a comprehensive solution that addresses all of these limitations and offers a clear value proposition to patients, providers, and payors by providing an easy-to-use, clinically proven, cost-effective platform solution. Our Zio service is prescribed by physicians for both identifying arrhythmias as well as for identifying risk factors which may be associated with a previously-identified arrhythmia. It improves physician management and diagnosis of arrhythmias by providing a patient-friendly wearable biosensor, curating and analyzing voluminous uninterrupted continuous ECG data, and ultimately creating a concise report that is used by the physician to make a diagnosis that can be integrated into a patient's electronic health record. We believe our Zio service can continue taking significant market share from the existing ambulatory cardiac monitoring market and expand the market for new clinical use cases and indications. We believe the Zio service has the potential to supplant traditional technology and become the primary monitoring option for patients who are candidates for ambulatory cardiac monitoring due to its ability to detect more arrhythmias with a high degree of clinical accuracy, which allows for earlier changes in clinical patient management.

The Zio service consists of:

- wearable patch-based biosensors, Zio XT and Zio AT monitors, which continuously record and store ECG data from every patient heartbeat for up to 14 consecutive days. Zio AT offers the option of timely transmission of data during the prescribed wear period
- cloud-based analysis of the recorded cardiac rhythms using our proprietary, deep-learned algorithms
- a final quality assessment review of the data by our certified cardiographic technicians
- an easy-to-read Zio report, a curated summary of findings that includes high quality and clinically-actionable information which is sent directly to a patient's physician and can be integrated into a patient's electronic health record

We refer to both the Zio AT monitor, and the Zio XT monitor herein as our Zio monitor(s), unless otherwise specified.

We have reviewed a body of clinical evidence which we interpret to show, among other advantages, that the Zio service helps reduce healthcare costs and improves arrhythmia detection, characterization and diagnosis by prescribing physicians. These improvements have the potential to change clinical management of patients. Our clinical evidence is helping to drive physician adoption and payor reimbursement coverage. We interpreted one study of the Zio service, published in *The American Journal of Cardiology* in August 2013, to show that among 16,142 consecutive Zio service patients in whom an arrhythmia was detected, over 50% of symptomatic arrhythmias detected by the Zio service occur more than 48 hours into the wear period. Although this study did not directly compare the Zio service to Holter monitoring performance, it should be noted that 48 hours is outside of the typical wear period for Holter monitors. Based upon our review of another prospective comparative study against Holter monitor, published in *The American Journal of Medicine* in January 2014, we concluded that the Zio service detected 96 arrhythmia events compared to 61 arrhythmia events detected by the Holter monitor ($P < 0.001$), providing a 57% improvement in diagnostic yield, which is the percentage of patients in whom an arrhythmia was detected during the monitoring period. From our review, we concluded that the Zio service was preferred by 81% of patients when compared to Holter monitors. This clinical study, however, was a single-center study with a relatively small sample size that directly compared the Zio service to a Holter monitor, but not to other ambulatory cardiac monitoring products. In summary, we interpreted the clinical results to show that the Zio service is preferred by patients and allows for significantly longer continuous monitoring, improved clinical accuracy, increased detection of arrhythmias by physicians, and meaningful changes in clinical management.

Over one million patients have utilized the Zio service since its commercialization, and as of December 31, 2018, we have achieved both policy coverage and, where applicable, contracts with the majority of payors in the United States including the Centers for Medicare & Medicaid Services ("CMS") and other government agencies. Over 95% of patients in the U.S. are able to access reimbursed Zio services through our third-party payor contracts, our IDTF participation status with CMS, and self-pay programs when excluding state Medicaid programs. We have designed a comprehensive strategy to allow us to compete favorably in the ambulatory cardiac monitoring market, which includes capturing market share from existing monitoring devices as well as expanding the market through new indications. We expect to drive sales and margin growth in our business by expanding our sales organization, securing additional contracts with commercial payors, maintaining technology leadership through research and development, and continuing to build clinical evidence supporting the benefits of the Zio service.

We have collected approximately 400 million hours of curated heartbeat data, creating what we believe to be the world's largest repository of annotated, continuous ambulatory ECG recordings with contextual patient information. This extensive database, along with our proprietary analytic platform, differentiates the Zio service and gives us a competitive advantage. We will continue to seek opportunities to capitalize on our product design, proprietary analytic capabilities and data repository to capture additional opportunities in the digital healthcare market.

We are a vertically-integrated company headquartered in San Francisco, California, and we have additional commercial operations and facilities in Lincolnshire, Illinois and Houston, Texas. We manufacture our devices in Cypress, California. As of December 31, 2018, we had 748 full-time employees. Our revenue was $147.3 million and $98.5 million for the years ended December 31, 2018 and 2017, respectively and we incurred a net loss of $48.3 million and $29.4 million for those same periods.

Market Opportunity

Every year, millions of patients experience symptoms potentially associated with cardiac arrhythmias, a condition in which the electrical impulses that coordinate heartbeats do not occur properly, causing the heart to beat too quickly, too slowly or irregularly. Examples of arrhythmias include super ventricular arrhythmias which are fast heart rates that originate from the upper chambers of the heart, atrial tachycardia, atrial flutter and AF. The symptoms of arrhythmias include palpitations or a skipped heartbeat, rapid heartbeat, shortness of breath, dizziness, light-headedness, fainting spells, vertigo, anxiety and fatigue. Early detection is essential in order to obtain early treatment and help avoid more serious medical conditions, such as stroke, and additional medical costs.

Atrial Fibrillation and Stroke

In patients with AF, the upper chambers of the heart beat irregularly and blood does not flow properly to the lower chambers of the heart. The AHA estimates that AF affects as many as six million patients in the United States and 33.5 million patients worldwide. The NSA estimates that one-third of AF patients are asymptomatic and still undiagnosed. More than 750,000 hospitalizations occur each year because of AF, and the condition contributes to an estimated 130,000 deaths each year. Since AF is more common among people over the age of 60, these numbers are expected to increase as the U.S. population ages.

In addition, AF is the leading risk factor for stroke because AF can cause blood to collect in the heart and potentially form a clot, which can travel to the brain. While individuals with AF are approximately five times more likely to suffer a stroke, the NSA estimates that up to 80% of strokes in people with AF can be prevented through early detection and proper treatment. According to the AHA, stroke costs the United States an estimated $34 billion each year in healthcare costs and lost productivity, and is a leading cause of serious long-term disability. The AHA estimates that ischemic strokes represent 87% of all strokes in the United States and that between 15% and 20% of the estimated 690,000 ischemic strokes are attributable to AF.

Currently, the Zio service is prescribed by physicians primarily for symptomatic patients. However, we believe that high-risk asymptomatic patients represent an additional market opportunity for the Zio service. Monitoring high-risk asymptomatic patients may lead to increased diagnoses and earlier treatment and potentially avoid more severe downstream conditions, because, as the Framingham Study published in *Stroke* in September 1995 demonstrated, 18% of AF-related strokes present with asymptomatic AF that is only detected at the time of stroke.

Early detection of AF is critical in optimizing patient care, delivering earlier treatment to help avoid further adverse clinical events, managing symptoms caused by AF, and reducing the total public health burden of treating stroke. The AHA and American Stroke Association ("ASA") have published treatment guidelines for patients diagnosed with AF to manage heart rhythm and rate and prevent stroke. These early treatments include:

- medications such as oral anticoagulants, new variations of which have been shown in multiple recent studies to safely reduce stroke rates by 60%
- treatment with anti-arrhythmic drugs
- interventions such as cardiac ablation therapy to help control heart rhythm and rate

Atrial fibrillation burden, the amount of time a patient spends in AF during a monitoring period, has been identified in the clinical community as an important measure for determining appropriate and effective therapeutic interventions to manage patients with AF and assessing stroke risk. The calculated AF burden is only as good as the data available for analysis during the monitoring period. Since the most common type of AF occurs intermittently, long-term continuous patch-based monitoring, such as the Zio service, more accurately measures AF burden because every heartbeat is recorded without interruption during the entire monitoring period. A study to determine the correlation between AF burden, as measured by the Zio service, and the risk of stroke in patients was published in JAMA Cardiology in May 2018. Using this data in combination with electronic health record data from 1,965 patients at two large integrated health care delivery systems, the researchers concluded that an increase in the burden of AF is independently associated with a higher risk of ischemic stroke and arterial thromboembolism ("TE") in patients who are not taking anticoagulant medication. An AF burden of 11.4% or higher was associated with more than three-fold increased risk for stroke or TE event after adjusting for either CHA2DS2-VASc or ATRIA scores, two tools physicians use to assess stroke risk.

The Zio monitors were designed specifically to be patient-friendly to facilitate high patient compliance and allow data to be recorded uninterrupted and continuously for up to 14 days. Other non-invasive monitoring modalities are limited due to intermittent monitoring, short prescribed monitoring periods and patient compliance issues due to removal of the device during the monitoring period.

Ambulatory Cardiac Monitoring Overview

Arrhythmia symptoms are generally monitored either in a physician's office or healthcare facility or remotely with the use of ambulatory cardiac monitoring devices. Typically, physicians will administer a resting ECG in their offices to record and analyze the electrical impulses of patients' hearts. If physicians determine that patients require monitoring for a longer period of time to generate a diagnosis, they have historically prescribed an ambulatory cardiac monitoring device such as a Holter monitor. If the diagnosis is not definitive following the first monitoring period, physicians may prescribe a repeat Holter monitoring period, or alternatively, prescribe event monitors, mobile cardiac telemetry or implantable loop recorders. Physicians also use frequency and acuity of symptoms to determine which monitoring device to prescribe. Some physicians own their own ambulatory cardiac monitoring devices and provide ambulatory monitoring services directly to their patients, while others outsource these services to third-party providers.

Holter Monitors

Holter monitors are non-invasive, ambulatory, battery-operated monitoring products that continuously record the ECG data of a patient, during a typical prescribed wear period of 24 to 48 hours. A Holter monitor consists of a recorder, electrodes that are attached to the patient's chest and wires, or electrode leads, connecting the electrodes to the recorder. After the prescribed wear period, the data recorded by the device is delivered by hand, mail or internet for processing and analysis by the physician's office or a third-party provider. Holter monitors are typically prescribed for patients who experience daily symptoms. For patients with suspected arrhythmias, Holter monitors have a relatively low diagnostic yield of approximately 24% due to a limited prescribed wear period of typically no more than 48 hours and low patient compliance, likely resulting from bulky equipment and cumbersome electrode leads. The low diagnostic yield is also attributable to missing data, because patients typically remove the electrodes and disconnect their Holter monitors in order to shower, sleep and exercise.

Cardiac Event Monitors and Mobile Cardiac Telemetry

Cardiac event monitoring is another type of non-invasive, ambulatory monitoring. Event monitoring differs from Holter monitoring in that the monitor is prescribed and worn for a longer period of time, up to 30 days, and the data recorded during the wear period is symptom driven. Event monitors generally record several minutes of activity at a time and then start over, a process referred to as memory loop recording. There are many types of event recorders available with a range of features including patient-triggered or auto-detected symptom recording, and manual data transmission or auto-send. Typically, physicians prescribe event monitors for patients with lower acuity symptoms. Mobile cardiac telemetry, also known as MCT, is another form of event monitor that usually uses wireless technology, such as a cell phone network, to transmit event data during the wear period for both patient-triggered and auto-detected events to a monitoring facility where the ECG data is analyzed and the facility determines if physicians should be notified in the case of significant events. Typically, physicians prescribe MCT for patients with higher acuity symptoms such as syncope, or fainting, that require more timely notification and actions.

Event and mobile cardiac monitors have several limitations, including limited data storage, the lack of trend data, and poor patient compliance due to electrode replacement, bulky equipment and the fact the patient must both activate and transmit events in some cases. Additionally, MCT technology has unique limitations including the need for patients to keep the transmitter close at all times and frequently change the battery or recharge the device to ensure timely transmissions as well as notifications sent to physicians of non-actionable events. These limitations can severely impact a physician's ability to provide a timely diagnosis and result in a lower diagnostic yield. More recently, there have been new MCT products introduced to the market that include patch-based or combined recorder-transmitter features to try and address some of these limitations.

Implantable Loop Recorders

A separate segment of ambulatory cardiac monitoring consists of implantable diagnostic products such as implantable loop recorders, also known as insertable cardiac monitors. Implantable loop recorders are implanted underneath a patient's skin during a hospital-based, minimally invasive procedure. These devices remain implanted in a patient for up to three years, capturing data in a looping manner for patient-triggered or automatically-detected events. Limitations of this monitoring option include the semi-permanent nature of the implant, infection risks during insertion and removal, non-continuous data collection, under- or over-sensing which may exhaust the memory of the loop recorder, risk of missing events due to the looping nature of the recording, and the high cost of the device.

Limitations of Traditional Ambulatory Cardiac Monitors

Limitations of the various types of traditional ambulatory cardiac monitors can include the following:

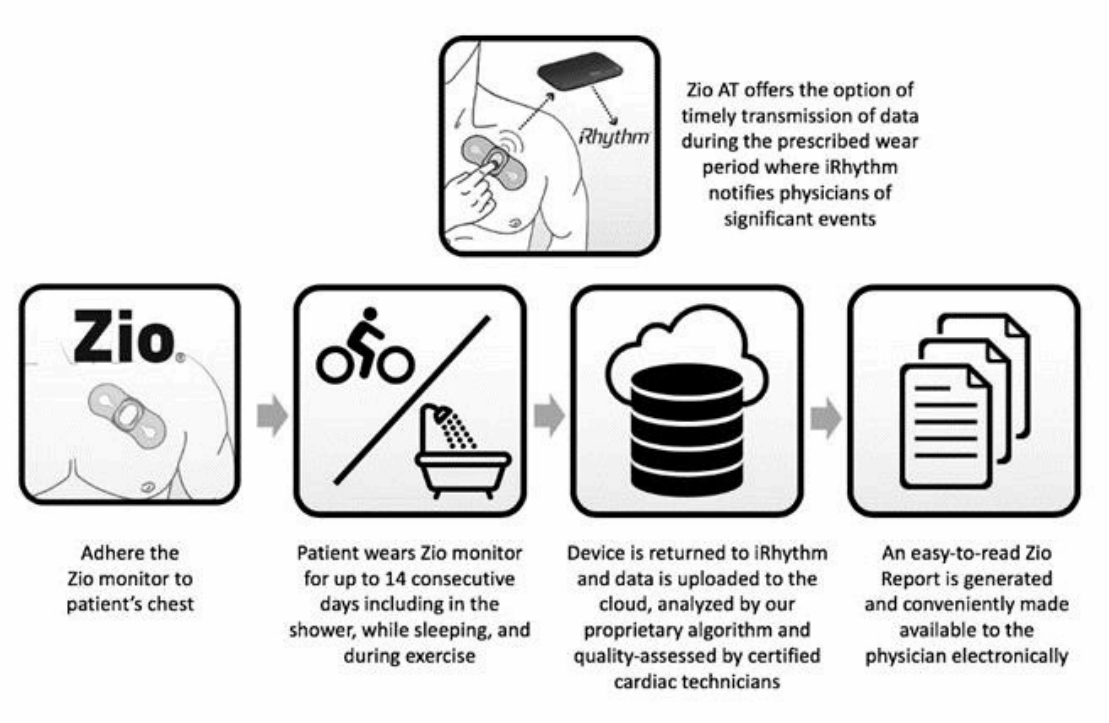
- short prescribed monitoring periods leading to low diagnostic yield
- non-continuous and interrupted data collection, resulting in an incomplete picture of a patient's arrhythmia experience
- bulky monitoring equipment with dangling electrode leads causing discomfort and low patient compliance
- the need to use multiple, often times costly, diagnostic options that would not be necessary if initial tests had produced a higher diagnostic yield
- the generation of excessive and uncurated data for the physician to analyze
- over notification of non-actionable events

We believe there is a significant opportunity for a disruptive arrhythmia monitoring solution that offers a portfolio of ambulatory cardiac monitoring services on a single platform that is cost-effective and provides certainty in a single test obtained through uninterrupted continuous monitoring, combined with patient-friendly design, to enhance compliance and simplify the monitoring experience while maximizing diagnostic yield.

Our Solution

We have developed an uninterrupted, continuous ambulatory cardiac monitoring platform known as the Zio service that provides continuous ambulatory cardiac monitoring for both Zio XT and Zio AT. The FDA-cleared Zio service combines a wire-free, patch-based, 14-day wearable biosensor with a proprietary cloud-based data analytic platform to help physicians monitor patients and diagnose arrhythmias with a high degree of accuracy. Since commercialization, over one million patients have utilized the Zio service and we have collected approximately 400 million hours of heartbeats, creating what we believe to be the world's largest repository of curated ambulatory ECG patient data.

While wearing either the Zio XT or Zio AT monitor, patients have the ability to mark when symptoms occur by pressing a trigger button on the device, and separately recording contextual data like activities and circumstances in a symptom diary or digitally via the myZio application. This allows physicians to match symptoms and activity with ECG data. Following the wear period, the monitor is returned and data is uploaded to our secure cloud and run through our proprietary, deep-learned algorithms. A concise report of preliminary findings is prepared by our certified cardiographic technicians and made available to physicians electronically. Zio AT offers the additional capability of transmissions during the wear period to assist physicians to diagnose and treat the small percentage of the population requiring more timely action. During the wear period, physicians will receive notifications if there are significant events that meet pre-determined arrhythmia detection criteria.



We believe the Zio service is a disruptive option for ambulatory cardiac monitoring. Although the Zio service is less well-known than some of the devices sold by our competitors, our solution is the only patch-based monitor to achieve meaningful scale to date, with over one million monitored patients. The Zio service addresses patient compliance, continuously monitors patients without requiring patient maintenance for up to 14 consecutive days and produces easy to read, comprehensive digital reports which provide the information physicians need to make accurate and timely clinical decisions. Clinical studies have shown that our innovative digital healthcare solution improves physicians' abilities to detect arrhythmias by increasing diagnostic yield, and potentially allows them to change the course of treatment. Our proprietary deep-learned algorithms give us a competitive advantage due to the depth and breadth of ECG data available from the approximately 400 million hours of curated and annotated ECG data collected to date. Additionally, we believe we have the first mover advantage in the long-term continuous market, particularly related to our efforts to secure both policy coverage and, where applicable, contracts with the majority of payors in the United States including CMS and other government agencies. As of December 31, 2018, over 95% of patients in the U.S. are able to access reimbursed Zio services through our third-party payor contracts, our IDTF participation status with CMS, and self-pay programs when excluding state Medicaid programs.

We are actively working to make the Zio service the preferred monitoring option for patients who require ambulatory cardiac monitoring. Our solution helps reduce healthcare costs and improves arrhythmia detection, characterization and diagnosis by providing simple, seamless integration of heart rhythm data from patient to cloud to physician. We believe we offer a high value, low cost, disruptive solution to a market ready for innovative technology.

Key Benefits

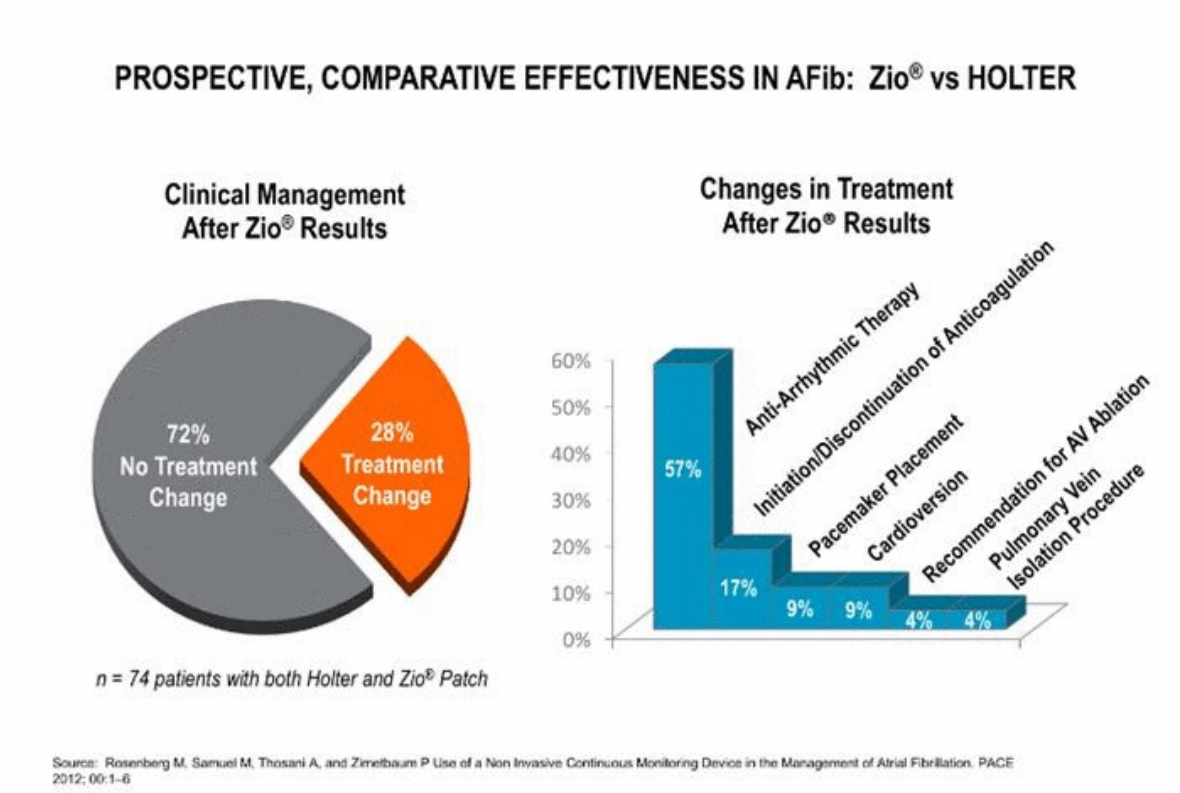
Value to Patients

We designed the Zio monitor specifically to address patient compliance issues common to other ambulatory cardiac monitors. Our wire-free wearable biosensor is easy to apply, comfortable, lightweight and unobtrusive. It does not require patient action for battery changes, adhesive changes, or lead wire or electrode management. Patients wear it discreetly during activities of daily life including exercising and showering for up to 14 consecutive days. We interpreted a clinical study by Barrett et al published in *The American Journal of Medicine* in January 2014, or the Barrett Study, to confirm that the Zio service is a patient-friendly monitoring option, and the study noted that 94% of patients found the Zio monitor comfortable to wear, and 81% of patients preferred the Zio monitor over a Holter monitor. The Zio monitor allows patients to mark when a symptom occurs by pressing a button on the Zio monitor and logging the surrounding circumstances into a diary, thus allowing physicians to link symptoms with the ECG data. Additionally, patients have access to our professional 24/7 customer service team to address any product, service, enrollment or billing questions.

Value to Providers

Providers, such as physicians, receive high-quality, easy-to-read, actionable digital reports that help them diagnose patients and streamline clinical workflow. The Zio service has been shown in multiple peer-reviewed published clinical studies to detect more arrhythmias compared to Holter monitoring during their respective prescribed wear periods. We analyze and generate patient reports at our CMS-certified independent diagnostic testing facilities ("IDTFs") staffed with our certified cardiographic technicians who specialize in advanced arrhythmia interpretation to help ensure high accuracy and quality of reports before delivering them to the prescribing physician. Due to high patient compliance, the reports include up to 14 days of non-interrupted data correlated with patient-triggered and diary symptom events. Physicians can use this continuous correlated data to more conclusively diagnose arrhythmias as a source of symptoms.

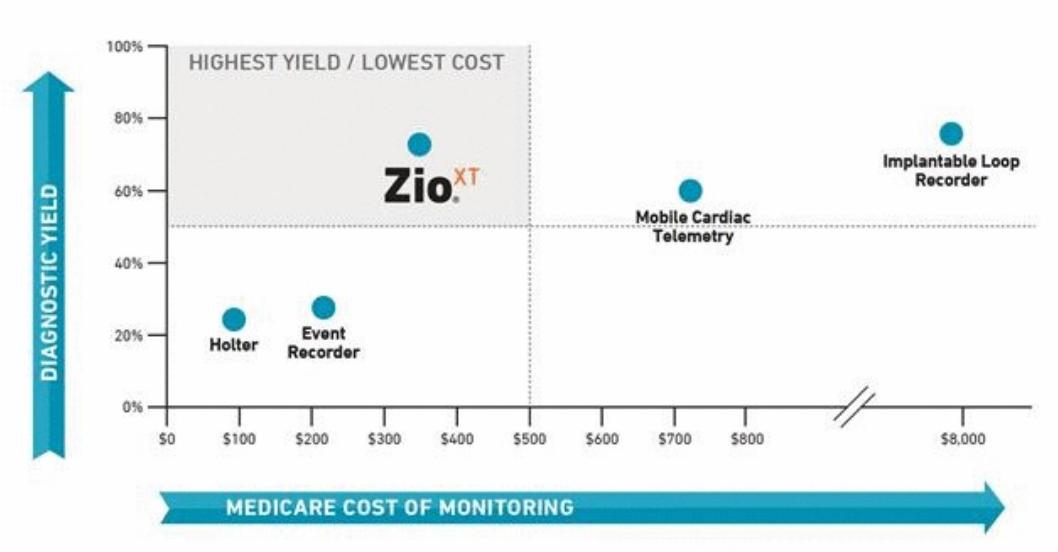
Accurate detection and higher diagnostic yield allow physicians to more quickly prescribe the appropriate treatment options for patients. From our review, we determined that in 28% of cases observed in a clinical study by Rosenberg et al published in *Pacing and Clinical Electrophysiology* in March 2013, or the Rosenberg Study, the physician changed the patient's clinical management after prescribing the Zio service as compared to a Holter monitor.



Additionally, the Zio service allows clinical staff to focus on more value-added activities by not requiring electrode changes or battery recharging during use, device cleaning and maintenance following use, and by reducing physician and hospital staff time needed to review and curate ECG data. Our 24/7 customer service team provides troubleshooting for patient-related issues, removing this burden from the physician practice.

Value to Payors

The Zio service offers a high yield, low cost solution compared to other monitoring modalities.



The graph above compares the costs of monitoring to the diagnostic yield of various ambulatory cardiac monitors. The analysis, completed by Decision Drivers Analytics and commissioned by us, uses cost data from the Centers for Medicare & Medicaid Services ("CMS") published diagnostic yields, and our internal database, and demonstrates that the Zio service has a diagnostic yield on par with much more expensive devices but superior to less expensive options. This implies that it is the most cost-effective modality among its peer group, optimizing the cost, time, and reliability of reaching a timely diagnosis.

Patients who use traditional Holter monitors often do not receive a diagnosis after one monitoring period. A retrospective, longitudinal study conducted by Arnold et al published in the *Journal of Health Economics and Outcomes Research* in February 2015, evaluated the clinical consequences and costs of CMS patients who had no previous evidence of a cardiac arrhythmia and were undergoing their first Holter monitoring test. Our review of data from this study indicates that there was no diagnosis reached for 70% of patients after an initial Holter test. The Zio service has been shown to have a low cost per diagnosis compared to existing monitoring modalities due to its high diagnostic yield.

We believe that the Zio service is the best test for most patients requiring ambulatory cardiac monitoring because it allows physicians to identify a timely course of treatment and avoids healthcare costs associated with additional monitoring. The Zio monitor is patient-friendly and allows significantly longer and more continuous monitoring, resulting in improved clinical accuracy and a potentially meaningful change in clinical management. Better diagnostic yield results in decreased costs due to fewer additional tests. We believe that the Zio service could reduce the need for multiple consecutive tests because it offers certainty in a single test.

Early detection of arrhythmias allows physicians to assess a patient's risk factors, and decide on the best treatment course for avoiding potentially more severe downstream conditions. Specifically, the early detection of AF allows physicians to consider strategies to mitigate the risk of stroke. According to multiple studies, preventative treatments, such as oral anticoagulants, have been shown to reduce stroke rates by 60%, thereby potentially avoiding the patient effects of stroke and the high costs associated with post-stroke management.

Our Technology Platform

The Zio service is a platform-based approach that combines our proprietary products and services to provide continuous ambulatory cardiac monitoring for both Zio XT and Zio AT. A wearable patch-based biosensor called the Zio monitor, typically collects up to 1.5 million heartbeats for each patient during a single application of up to 14 consecutive days. Our Zio service includes a deep-learned analytics engine which curates the heartbeat data into a concise, clinically actionable report, which is delivered to the prescribing physician. Zio AT offers the additional capability of timely transmissions during the wear period. During the wear period, physicians will receive notifications and reports if there are significant events that meet pre-determined arrhythmia detection criteria.

Zio monitor

The Zio monitor is a single-use, wire-free, wearable patch-based biosensor that records a patient's heartbeats and ECG data. The Zio monitor was specifically designed with the patient and physician in mind. The Zio monitor includes the following features:

- patented clear, flexible, lightweight, wire-free design
- unobtrusive and inconspicuous profile
- proprietary adhesive backing that keeps the patch securely in place for the duration of the prescribed wear period
- water resistant functionality, allowing patients to shower and perform normal daily activities, including moderate exercise
- hydrogel electrodes for a clear ECG with minimal artifact from movement
- large symptom button, or patient trigger, that is easy to find and press
- indicated single application wear period of up to 14 days (for longer monitoring prescriptions, additional Zio AT monitors will be provided)
- sufficient battery life for the entire wear period

Symptoms can be logged through a paper symptom diary or through two digital platforms:

- myZio.com website
- myZio App (iOS and Android)

Monitoring with the Zio service

The Zio service is administered through the process described below:

Enrollment and Initiation of the Zio service

Once a physician determines a patient is a candidate for the Zio service, the patient is enrolled through our online portal. The wire-free Zio monitor is applied to the patient's chest by the clinical staff, and monitoring is initiated. There is also an option for physicians to enroll patients remotely. With this option, the physician enrolls the patient and the patient receives the Zio monitor in the mail along with a detailed set of self-application instructions.

Monitoring

The Zio monitor is worn continuously by the patient for up to 14 days without the need for patient maintenance. The Zio monitor can be worn in the shower, while sleeping, and during moderate exercise. During the wear period, the device continuously stores and records all ECG data. The Zio monitor features a patient trigger button for marking any symptoms during the wear period; the patient is instructed to push the button when a symptom occurs and make a corresponding entry into the written or digital symptom diary. At the end of the prescribed wear period, the patient removes the device and places it and the diary into a pre-paid postal box, which ships to one of our clinical centers.

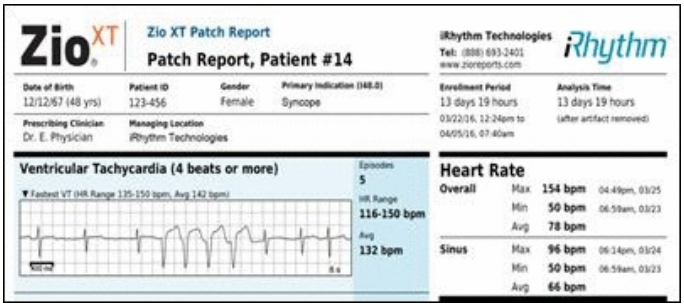
Data Analysis and Assessment

At one of our clinical centers, the returned device is validated with patient identifiers that are compliant with the Health Insurance Portability and Accountability Act of 1996, ("HIPAA"), and up to 14 days of heartbeat data is uploaded to be processed through our cloud-based, FDA-cleared proprietary deep-learned algorithms for highly accurate ECG analysis. When complete, a preliminary curated report is created. Our process can take the equivalent of 30,000 pages of ECG strips and distill it into an actionable summary report of about 10 to 15 pages, summarizing the key findings and providing supporting details on clinically relevant events and metrics during the wear period. Our certified cardiographic technicians play a critical role in report curation by providing a quality review of the data before the final Zio report is electronically delivered to the patient's physician for final interpretation and diagnosis.

Final Zio report

The final Zio report, identical for Zio XT and Zio AT, provides information in a concise format for review and interpretation by the patient's physician. Data provided includes total analysis time, AF burden, AF duration, comprehensive symptom/rhythm correlation, detailed findings per day, and arrhythmia type. For Zio XT, if pre-determined physician notification criteria for symptoms are met, the prescribing physician is notified by phone of the serious findings prior to the Zio report being made available electronically. The Zio report is delivered through our secure, HIPAA compliant web portal. Physicians can open the Zio report and add their interpretation into the report file. These reports can be uploaded into the physicians' electronic record system for storage and are available for use by the patient's other physicians. Excerpts of these reports are included below to highlight the key features.

Up to 14-days continuous recording and storage


Zio XT

Zio XT Patch Report

Patch Report, Patient #14

iRhythm Technologies

Tel: (888) 693-2401

www.zioreports.com

iRhythm

Date of Birth	Patient ID	Gender	Primary Indication (I48.0)
12/12/67 (48 yrs)	123-456	Female	Syncope

Prescribing Clinician	Managing Location
Dr. E. Physician	iRhythm Technologies

Enrollment Period	Analysis Time
13 days 19 hours 03/22/16, 12:24pm to 04/05/16, 07:40am	13 days 19 hours (after artifact removed)

Ventricular Tachycardia (4 beats or more)

▼ Fastest VT (HR Range 135-150 bpm, Avg 142 bpm)

Episodes: 5

HR Range: 116-150 bpm

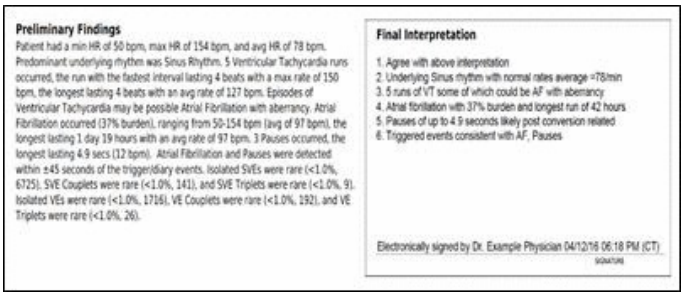
Avg: 132 bpm

Heart Rate

Overall	Max	154 bpm	04:49pm, 03/25
	Min	50 bpm	06:59am, 03/23
	Avg	78 bpm	
Sinus	Max	96 bpm	06:14pm, 03/24
	Min	50 bpm	06:59am, 03/23
	Avg	66 bpm	

Up to 20,000 minutes of continuous ECG data, equivalent to approximately 1.5 million heartbeats.

Easy-to-read summary


Preliminary Findings

Patient had a min HR of 50 bpm, max HR of 154 bpm, and avg HR of 78 bpm. Predominant underlying rhythm was Sinus Rhythm. 5 Ventricular Tachycardia runs occurred, the run with the fastest interval lasting 4 beats with a max rate of 150 bpm, the longest lasting 4 beats with an avg rate of 127 bpm. Episodes of Ventricular Tachycardia may be possible Atrial Fibrillation with aberrancy. Atrial Fibrillation occurred (37% burden), ranging from 50-154 bpm (avg of 97 bpm), the longest lasting 1 day 19 hours with an avg rate of 97 bpm. 3 Pauses occurred, the longest lasting 4.9 secs (12 bpm). Atrial Fibrillation and Pauses were detected within ±45 seconds of the trigger/diary events. Isolated SVEs were rare (<1.0%, 6725). SVE Couplets were rare (<1.0%, 141), and SVE Triplets were rare (<1.0%, 9). Isolated VEs were rare (<1.0%, 1716), VE Couplets were rare (<1.0%, 192), and VE Triplets were rare (<1.0%, 26).

Final Interpretation

1. Agree with above interpretation
2. Underlying Sinus rhythm with normal rates average =78/min
3. 5 runs of VT some of which could be AF with aberrancy
4. Atrial fibrillation with 37% burden and longest run of 42 hours
5. Pauses of up to 4.9 seconds likely post conversion related
6. Triggered events consistent with AF, Pauses

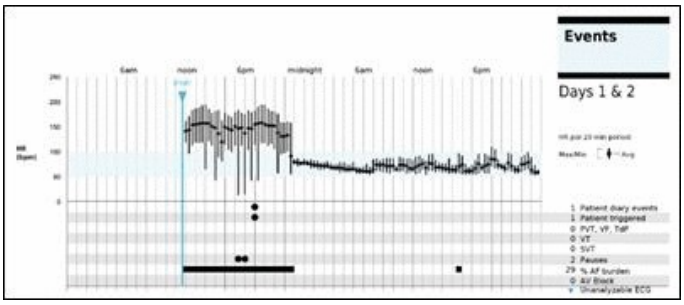
Electronically signed by Dr. Example Physician 04/12/16 06:18 PM (CT)

SIGNATURE

Preliminary findings based on both the proprietary algorithms and certified cardiographic technicians.

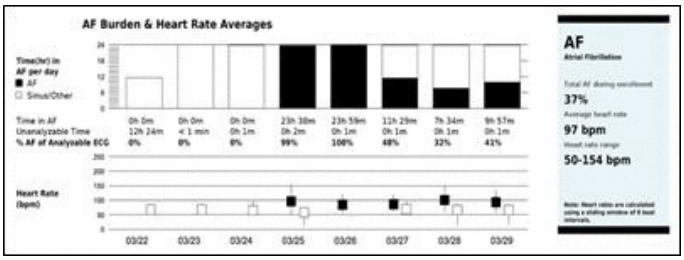
Final interpretation by a patient's physician.

Comprehensive symptom/rhythm correlation



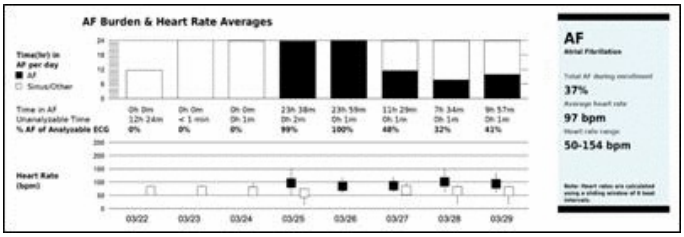
Patient-triggered and symptom diary events mapped to arrhythmia.

AF Burden



Total AF during wear period and daily AF burden.

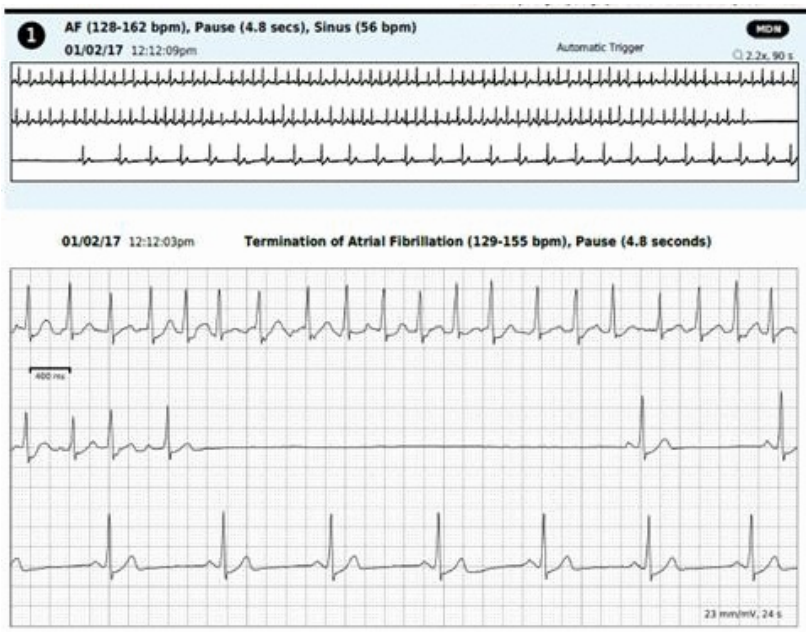
AF Duration



Total number of AF episodes categorized by duration

Reporting Events During the Wear Period with Zio AT

The Zio service with Zio AT includes a wireless gateway that provides connectivity between the Zio monitor and our monitoring center which enables symptomatic and asymptomatic data transmission during the prescribed wear period. The Zio AT monitor, in conjunction with the wireless gateway and the unique Zio arrhythmia detection algorithm, has arrhythmia auto-detection capabilities that produce actionable event data for physician review. The definition of an actionable arrhythmia event is customized by the physician to meet his or her needs, with the intent to reduce the number of over-notifications of data that do not require more timely medical action. Additionally, patients have the option of pressing a trigger button which marks the continuous record and initiates a wireless transfer of a 90 second ECG strip to our monitoring center. In addition to the final Zio report, physicians receive daily symptomatic and auto-detected arrhythmia event reports.



ECG strip of auto-detected actionable arrhythmia event from Zio AT Transmission Report.

Business Strategy

Our goal is to be the leading ambulatory cardiac monitoring option for patients at risk for arrhythmias. The key elements of our strategy include:

- ***Further penetrating the existing ambulatory cardiac monitoring market.*** We intend to expand our market penetration by targeting the large existing ambulatory cardiac monitoring market in the United States and driving broader awareness of its advantages. We will leverage our platform of products, Zio XT and Zio AT, as a way of meeting the ambulatory cardiac monitoring needs of targeted large integrated delivery networks ("IDN"). We will continue to position the Zio service as providing certainty in a single test due to high patient compliance and superior quality of uninterrupted data. Zio XT will be positioned as the workhorse service while Zio AT is appropriate for the smaller percentage of the population that requires timely notification. Marketing and education throughout the medical community are key to bringing awareness and communicating the strong clinical evidence backing the Zio service. In addition, we expect to continue developing and publishing clinical evidence to demonstrate the advantages of the Zio service. Also, within existing accounts, we will continue to introduce our Zio service beyond cardiology and electrophysiology into other departments, including neurology, emergency rooms and primary care offices. To enable this broader adoption within a hospital system, we have successfully interfaced the Zio ordering and report posting processes into a number of large health systems' Electronic Health Record ("EHR") systems. This seamless integration of Zio workflow processes into those already used within the IDN has proven to be a key factor in spurring growth within existing and new accounts and is an important part of our ongoing market penetration strategy.

- ***Increasing third-party payor reimbursement and patient access.*** As of December 31, 2018 we have achieved both policy coverage and, where applicable, contracts with the majority of payors in the United States including CMS and other government agencies. Over 95% of patients in the U.S. are able to access reimbursed Zio services through our third-party payor contracts, our IDTF participation status with CMS, and self-pay programs when excluding state Medicaid programs. We will continue to pursue expanded reimbursement coverage and contracting for both Zio XT and Zio AT by highlighting the unique attributes of the Zio service. Our payor relations team is actively engaging state-level commercial payors and Medicaid programs to increase reimbursement and simplify access to the Zio service.
- ***Driving conversion of business to direct billing of third-party payors.*** In 2018, approximately 88% of our revenue was derived from directly billing third-party payors for the Zio service. In accounts that have converted to this model, we have seen an increase in utilization volume because providers no longer need to be concerned with the complexities of coverage or reimbursement for the Zio service. New accounts that otherwise may not have been willing to accept the risk of directly billing payors are expected to expand our market opportunity. Our sales teams work diligently with accounts to review workflow and protocols and ensure they are effectively using our available resources, including our 24/7 customer service and billing specialists. We have developed communication tools and programs and continually evaluate and refine those tools to support this initiative. We intend to expand our business toward direct third-party payor billing in both existing and new accounts.
- ***Expanding our sales organization, both in the U.S. and internationally to support growth.*** To capture new account opportunities and support growth in existing accounts, we implemented a direct sales organization consisting of sales management, field billing specialists, and quota-carrying sales representatives. We will continue to invest in the expansion of this scalable infrastructure and believe this investment will drive adoption of the Zio service. While our initial commercial focus is the U.S. market, we have initiated efforts that will allow for future expansion into international geographies.
- ***Expanding indications and clinical use cases.*** We intend to continue expanding indications and clinical use cases for the Zio service in untapped patient populations at risk for arrhythmias through our clinical and market development efforts. We believe these additional indications and clinical use cases represent a significant opportunity for us. This market development initiative includes expanding use for our Zio service into the following patient populations:
  - patients at high risk for asymptomatic (silent) AF, estimated to be at least 10 million patients at any given time
  - post-ischemic stroke patients, with an annual incidence of 690,000
  - post-cardiac catheter ablation patients, estimated to be 100,000 annual procedures
  - ongoing management of paroxysmal atrial fibrillation patients, estimated to be one million at any given time
- ***Advancing our technology offering and continuing to solidify our footprint in digital healthcare.*** We continue to invest in building a unique, innovative product portfolio that addresses unmet needs in the ambulatory cardiac monitoring market. Additionally, we believe that we have collected the world's largest repository of ambulatory ECG patient data, and we will continue to look for ways to utilize our proprietary data to create value-driving opportunities in digital healthcare, such as expansion of indications for the Zio service, new therapeutic discoveries, development of an analytical engine for ambulatory consumer and other medical data, including the curation of third-party biosensor data and payor and provider decision support, as well as internal operating improvements.

Reimbursement and Revenue from the Zio service

We receive revenue for the Zio service primarily from third-party payors, which include commercial payors and government agencies, such as CMS and the military. In addition, a small percentage of institutions, which are typically hospitals or private physician practices, purchase the Zio service from us directly.

Third-party payors require us to identify the service for which we are seeking reimbursement by using a Current Procedural Terminology ("CPT") code set maintained by the American Medical Association ("AMA"). For the year ended December 31, 2018, we received 88% of our revenue through third-party payors. As we continue to contract with more commercial insurers and the patient population ages and becomes eligible for CMS programs, we believe more of our revenue will convert to third-party payor billing.

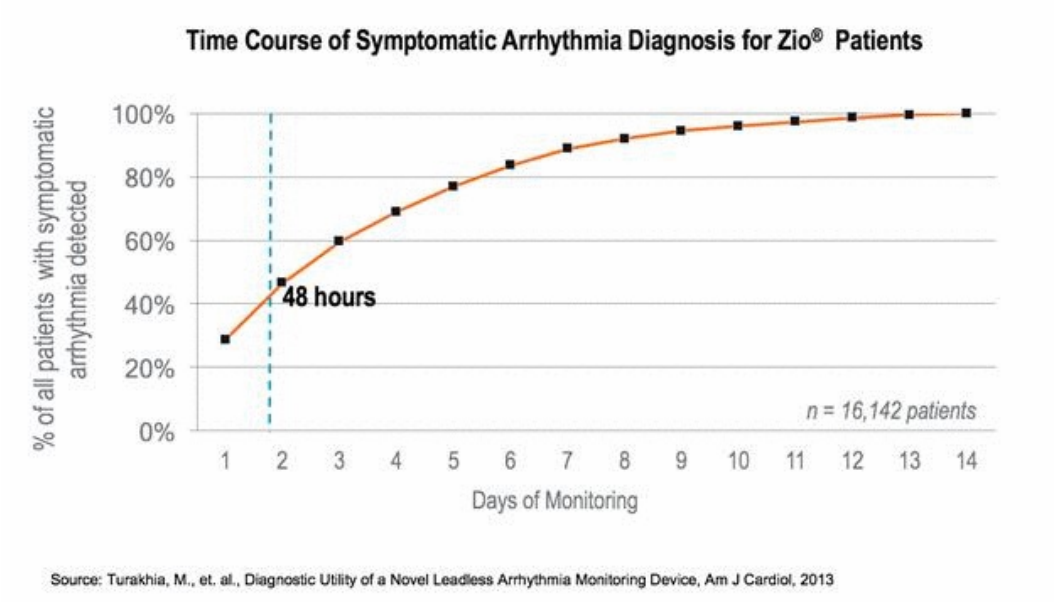
Our clinical centers, where we conduct the analysis of ECG data captured by the Zio XT monitor and the Zio AT monitor, are CMS-certified IDTFs that qualify us as a provider and allow us to bill CMS directly for the Zio service. We meet CMS requirements, including having an independent medical director for oversight and certified cardiographic technicians for quality assurance of our Zio Reports.

Clinical Results and Studies

The Zio service has been the subject of many peer-reviewed publications on its effectiveness to date. This body of clinical evidence is driving clinical adoption, payor coverage, and clinical use case expansion. The following sections summarize a few of the key clinical studies which have been driving adoption of the Zio service. In our discussion of the results of these publications, we have indicated changes in percentage terms, regardless of sample size, and the statistical significance is demonstrated by the relevant p-values, all of which are less than 0.05, which is the commonly accepted threshold for statistical significance. This follows the convention used by the authors of the study as well as standard clinical practice.

Benefit of 14-Day Continuous Monitoring

A retrospective study by Turakhia et al, published in *The American Journal of Cardiology* in August 2013, analyzed data from 26,751 patients using the Zio service for the first time between January 1, 2011 and December 31, 2011. While there was not a direct comparison of the Zio service to Holter monitoring performance, we interpreted results from the study to show that among the 16,142 patients with detected, clinically relevant arrhythmias, over 50% of the first-diagnosed symptomatic arrhythmias occurred after 48 hours of monitoring, suggesting that these arrhythmias could have been missed by traditional Holter monitoring during the typical maximum prescribed monitoring time.



Source: Turakhia, M., et. al., Diagnostic Utility of a Novel Leadless Arrhythmia Monitoring Device, Am J Cardiol, 2013

Diagnostic Yield and Monitoring Preference

In the Barrett study, a prospective head-to-head study comparing the detection of arrhythmias between a 24-hour Holter monitor, which has a typical prescribed wear period of 24-48 hours, and the 14-day Zio service, a total of 146 patients referred for evaluation of cardiac arrhythmias between April 2012 and July 2012 underwent simultaneous ambulatory ECG recording with both devices. The purpose of the Barrett study was to determine the number of arrhythmia events and the percentage of patients in whom an arrhythmia was detected, known as "diagnostic yield," during the comparative prescribed wear periods. Our interpretation of the results of the Barrett study are that over the total wear period of each device, the Zio service detected 96 arrhythmia events compared with 61 arrhythmia events by the Holter monitor ($P < 0.001$) providing a 57% improvement in diagnostic yield. An increase in diagnostic yield provides increased data for the prescribing physician to use when making a diagnosis. In addition, we interpreted survey results to show that 94% of patients found the Zio XT monitor comfortable to wear, whereas only 52% patients found the Holter monitor comfortable to wear, and 81% indicated they preferred the Zio XT monitor to the Holter monitor. Of the 102 physicians surveyed, from our review, we concluded that 90% thought a definitive diagnosis was achieved using data from the Zio service, as opposed to 64% using data from the 24-hour Holter monitor. This clinical trial, however, was a single center study with a relatively small sample size which did not compare the Zio service with any product except the Holter monitor.

Changing Clinical Management for AF

In the Rosenberg Study, a prospective single center study of 74 patients undergoing management of AF, patients received both the Zio XT monitor and a 24-hour Holter monitor simultaneously to determine the pattern of AF, to document a response to therapy and to potentially diagnose other arrhythmias. From our review, we concluded that the Zio service identified AF events in 24% more patients (18 patients) than Holter monitors ($P < 0.0001$) and the diagnosed pattern of AF was changed in 28% of patients (21 patients) after Zio service monitoring.

Based on our review of the study, we concluded that 28% of patients (21 patients) had a change in their clinical management. The most common changes included a change in antiarrhythmic medication, initiation or discontinuation of anticoagulation medication, recommendation of pacemaker placement, atrioventricular junction ablation, pulmonary vein isolation procedure and cardioversion. This clinical trial, however, was also a single center study with a relatively small sample size which did not compare the Zio service with any product except the Holter monitor.

AF Burden as a Predictor of Stroke Risk

The KP-RHYTHM Study, a retrospective study of 1,965 Kaiser Permanente patients with paroxysmal AF who were monitored with the Zio service between October 2011 and October 2016, examined the independent association between AF burden, which is the amount of time that a patient spends in AF during the monitoring period as measured by the Zio service, and the risk of ischemic stroke. The findings were derived by linking detailed clinical outcome data from Kaiser Permanente's electronic medical records with our database of analyzed ECG recordings. We interpreted the study results to show that an AF burden of more than 11% of the total time their heart rhythm was monitored was found to be associated with a three-fold increase in stroke risk, independent of other known risk factors in patients who were not taking medication to prevent blood clots. We concluded that these results suggest that information on AF burden, which is measured by the Zio service, may help patients and providers better evaluate treatment options for reducing risk of stroke. This clinical study was limited to Kaiser Permanente's patients from the Northern and Southern California regions.

Monitoring of Asymptomatic AF in High Risk Patients

Currently, the Zio service is prescribed by physicians primarily for symptomatic patients. However, the NSA estimates that one-third of the AF population suffers from asymptomatic, or silent, AF. We see a future opportunity in proactively monitoring the approximately ten million patients who are at high risk of asymptomatic AF to identify those with the illness.

STUDY-AF was a single-center, single-arm prospective study by Turakhia et al published in *Clinical Cardiology* in May 2015 that enrolled 75 high-risk but previously undiagnosed AF patients from May 2012 to August 2013. Patients were 55 years of age or older and considered high risk with two or more of the following risk factors: coronary disease, heart failure, hypertension, diabetes or sleep apnea, but had no prior documented AF or history of blood clots causing blockage in blood vessels. We interpreted the results to show that long-term continuous monitoring with the Zio service identified 11% of patients with previously undiagnosed AF or atrial tachycardia, a rapid heartbeat where electrical signals initiate abnormally in the upper chamber of the heart. We concluded from our review that in patients with AF, 75% of patients experienced the longest AF episode after the first 48 hours of monitoring and there was also a high prevalence of asymptomatic atrial tachycardia and frequent supraventricular ectopic complexes identified, which may be relevant to development of AF or stroke. This clinical trial, however, was also a single center study with a relatively small sample size.

The mHealth Screening to Prevent Strokes, or mSToPS study, published in the *Journal of the American Medical Association* in July 2018, in collaboration with Janssen Scientific Affairs, LLC, utilized a web-based platform to remotely recruit from 5,214 eligible patients from the Aetna Commercial Fully Insured and Medicare Advantage programs. Women over the age of 65 and men over 55 with certain risk factors were selected to participate based on information derived from claims data that placed them at a potentially increased risk of undiagnosed asymptomatic AF. We interpreted the results to show that at one-year, AF was newly diagnosed in 6.7 percent of patients who were actively monitored by the Zio service versus 2.6 percent in the observational control group receiving routine care. In addition to this primary endpoint to evaluate the difference in new AF diagnoses, clinical outcome data will be reported when the planned three year follow-up is complete.

An additional study underway examining early detection of AF using the Zio service in high risk patients is the Home-based Screening for Early Detection of AF, or SCREEN-AF. This study is screening approximately 800 patients older than 75 years with hypertension. Started in April 2015, the intervention group will undergo ambulatory screening for AF for two weeks with the Zio service utilized at baseline and again at three months, in addition to standard care for six months.

Research and Development

Our research and development activities are focused on:

- ***Improvements and extensions to existing products and services.*** We are continuously working to improve the Zio service to increase patient comfort, product quality, operational scalability and security
- ***Advancing our technology offering.*** Our product pipeline includes patch-based solutions that combine continuous monitoring for extended periods with accelerated notification of significant events through mobile telemetry capabilities
- ***Customer workflow optimization.*** We have initiatives that aim to increase customer productivity by optimizing workflow through easier patient enrollment, report access and interpretation, and integration of Zio reports directly into electronic health records
- ***Data analytics.*** We are focused on improving and enhancing our backend deep-learned analytic platform, building on our core competency in data analytics
- ***Developing clinical evidence.*** We are involved in clinical studies to further support the benefits of the Zio service and expand indications for use
- ***Continuing to solidify our footprint in digital healthcare.*** Using our repository of ambulatory ECG patient data, we will continue to look for ways to create value-driving opportunities in digital healthcare, such as expansion of indications for the Zio service, new therapeutic discoveries, development of an analytical engine for ambulatory consumer and other medical data and payor and provider decision support

Our research and development department consists of software development, algorithm and product development, regulatory affairs, and clinical research. Our research and development expense was $20.8 million, $13.3 million and $7.2 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Sales and Marketing

We market our ambulatory cardiac monitoring solution in the United States through a direct sales organization comprised of sales management, field billing specialists, and quota-carrying sales representatives. As of December 31, 2018 we had 112 sales representatives on a full-time equivalent basis, compared to 86 in 2017, and 66 in 2016. Our sales representatives focus on initial introduction into new accounts, penetration across a sales region, driving adoption within existing accounts and conveying our message of clinical and economic value to service line managers, hospital administrators, and other clinical departments. We continue to increase the size of our U.S. sales organization to expand the current customer account base and increase utilization of our Zio service. In addition, we will continue exploring sales and marketing expansion opportunities in international geographies.

We market our Zio service to a variety of physician specialties including general cardiologists, electrophysiologists, neurologists, and other physician specialists who diagnose and manage care for patients with arrhythmias. We have found success focusing on IDNs, in which large networks of facilities and providers work together to offer a continuum of care to a specific geographic area or market. Focusing on sales to IDNs gives us the opportunity to conduct a holistic sale for health systems interested in making value-based purchasing decisions.

Competition

We operate in a highly competitive and fragmented industry, subject to rapid change and significantly affected by new product introductions, results of clinical research, corporate combinations and other factors. Large competitors in the ambulatory cardiac market include companies that sell standard Holter monitors including GE Healthcare, Philips Healthcare, Mortara Instrument, Inc., Spacelabs Healthcare Inc. and Welch Allyn Holdings, Inc., which was acquired by Hill-Rom Holdings, Inc. Additional competitors, such as BioTelemetry, Inc., offer ambulatory cardiac monitoring services and also function as service providers.

These competitors have also developed patch-based cardiac monitors that have received FDA and foreign regulatory clearances such as BioTelemetry's ePatch and MCOT Patch. We are also aware of some small start-up companies entering the patch-based cardiac monitoring market. Large medical device companies may continue to acquire or form alliances with these smaller companies in order to diversify their product offering and participate in the digital health space. Many of our competitors have substantially greater financial, manufacturing, marketing and technical resources than we do. Furthermore, many of our competitors have well-established brands, widespread distribution channels, broader product offerings and an established customer base.

We believe the principal competitive factors in our market include:

- ease of use, comfort and unobtrusiveness of the device for the patient
- quality and clinical validation of the deep-learned algorithms used to detect arrhythmias
- concise and comprehensive reports supporting efficient physician interpretation
- contracted rates with third-party payors
- government reimbursement rates associated with our products and services
- quality of clinical data and publications in peer-reviewed journals
- size, experience, knowledge and training of sales and marketing teams
- availability and reliability of sales representatives and customer support services
- workflow protocols for solution implementation in existing care pathways
- reputation of existing device manufacturers and service providers
- relationships with physicians, hospitals, administrators, and other third-party payors

Intellectual Property

To protect our proprietary rights, we rely on a combination of trademark, copyright, patent, trade secret and other intellectual property laws, employment, confidentiality and invention assignment agreements and protective contractual provisions with our employees, contractors, consultants, suppliers, partners and other third parties.

As of December 31, 2018 we owned, or retained an exclusive license to, eleven issued patents from the U.S. Patent Office, four issued patents from the Japanese Patent Office, two issued patents from each of the Australian, Canadian and European Patent Offices, and one issued patent from the Korean Patent Office:

Country	Pat. No.	Issue Date	Expiration Date
USA	8,160,682	4/17/2012	2/3/2029
USA	8,244,335	8/14/2012	1/21/2029
USA	8,150,502	4/3/2012	11/20/2028
USA	8,560,046	10/15/2013	6/2/2031
USA	8,538,503	9/17/2013	5/12/2031
USA	9,173,670	11/3/2015	4/7/2034
USA	9,241,649	1/26/2016	10/19/2031
USA	9,451,975	9/27/2016	4/7/2034
USA	9,597,004	3/21/2017	10/30/2035
USA	9,955,887	5/1/2018	10/30/2035
USA	10,098,559	10/16/2018	10/30/2035
Japan	5,203,973	2/22/2013	2/6/2027
Japan	5,559,425	6/13/2014	5/12/2031
Japan	6,198,849	9/1/2017	1/23/2034
Japan	6,336,640	5/11/2018	1/23/2034
Australia	2011252998	12/10/2015	5/12/2031
Australia	2014209376	6/29/2017	1/23/2034
Canada	2,651,203	9/19/2017	2/6/2027
Canada	2,797,980	8/18/2015	5/12/2031
Korea	10-1513288	4/13/2015	5/12/2031
European	EP1981402	8/10/2016	2/6/2027
European	EP2568878	7/25/2018	5/12/2031

As of December 31, 2018, we had twenty-two pending patent applications globally, including six in the United States, five in the European Patent Office, four in Japan, two in each of Korea and Canada, and one in each of Australia, China and India.

As of December 31, 2018, our trademark portfolio contained a U.S. trademark registration for the mark My ZIO, ZIO and a pending U.S. application for Zio AT. It also contained registered trademarks for the mark IRHYTHM in Australia and the European Union and pending applications for that mark in Australia, Austria, Canada, China, Denmark, Finland, France, Germany, Japan, Norway, Sweden, Switzerland, United Kingdom and United States. It further contained pending applications for the mark ZIO in Australia, Canada, China, Japan, Norway and Switzerland and a registered trademark for ZIO in the European Union.

We also seek to maintain certain intellectual property and proprietary know-how as trade secrets, and generally require our partners to execute non-disclosure agreements prior to any substantive discussions or disclosures of our technology or business plans. Our trade secrets include proprietary algorithms, adhesive formulations, workflow tools and operational processes.

Manufacturing and Supply

We manufacture our ambulatory cardiac monitors, Zio XT and Zio AT, in our leased facilities in Cypress, California. This 14,616 square foot facility provides space for our assembly and production operations, including packaging, storage and shipping. We believe our manufacturing facilities will be sufficient to meet our manufacturing needs for at least the next two years.

Our manufacturing operations are subject to regulatory requirements of the FDA's Quality System Regulation ("QSR") for medical devices sold in the United States, set forth at 21 CFR part 820, and the Medical Devices Directive 93/42/EEC ("MDD"), which is required for doing business in the European Union ("EU"). We are also subject to applicable requirements relating to the environment, waste management and health and safety matters, including measures relating to the release, use, storage, treatment, transportation, discharge, disposal, sale, labeling, collection, recycling, treatment and remediation of hazardous substances. The FDA enforces the QSR through periodic unannounced inspections that may include our manufacturing facilities or those of our suppliers. Our EU Notified Body, the National Standard Authority of Ireland ("NSAI"), enforces the MDD through both scheduled and unscheduled inspections of our manufacturing facilities.

Our failure or the failure of our suppliers to maintain compliance with either the QSR or MDD requirements could result in the shutdown of our manufacturing operations or the recall of our products, which would harm our business. In the event that one of our suppliers fails to maintain compliance with our or governmental quality requirements, we may have to qualify a new supplier and could experience manufacturing delays as a result.

Our quality control management programs have earned us a number of quality-related designations. Our Cypress, California manufacturing facilities, have received EN ISO 13485:2012 certification. The NSAI most recently conducted an ISO 13485 recertification audit in 2017, and ISO certification was received. We have been an FDA-registered medical device manufacturer since 2008 and have been a California-licensed medical device manufacturer since 2009. The most recent FDA audit of our manufacturing facility occurred in October 2018 and no formal observations resulted. No additional follow up with the FDA was required and we believe that we are in substantial compliance with the QSR.

Circuit board components of the Zio XT and Zio AT monitors are provided by contract electronic manufacturers, Kimball Electronics, Inc. and Veris Manufacturing, Inc. We have manufacturing service agreements with both providers that allow either party to terminate the agreement with 90 days prior written notice. There are a number of additional critical components and sub-assemblies sourced by other vendors. The vendors for these materials are qualified through stringent evaluation and testing of their performance. We implement a strict no-change policy with our contract manufacturers to ensure that no components are changed without our approval. Our production group in Cypress, California performs inspection, assembly, testing and product release.

Order quantities and lead times for components purchased from suppliers are based on our forecasts derived from historical demand and anticipated future demand. Lead times for components may vary significantly depending on the size of the order, time required to fabricate and test the components, specific supplier requirements and current market demand for the components and subassemblies. To date, we have not experienced significant delays in obtaining any of our components or subassemblies.

Government Regulation

United States Food & Drug Administration (FDA)

The Zio XT and Zio AT monitors are considered medical devices subject to extensive and ongoing regulation by the FDA under the Federal Food, Drug, and Cosmetic Act ("FD&C Act") and its implementing regulations, as well as other federal and state regulatory bodies in the United States. The laws and regulations govern, among other things, product design and development, pre-clinical and clinical testing, manufacturing, packaging, labeling, storage, recordkeeping and reporting, clearance or approval, marketing, distribution, promotion, import and export, and post-marketing surveillance.

The FDA regulates the medical device market to ensure the safety and efficacy of these products. The FDA allows for two primary pathways for a medical device to gain approval for commercialization: a successful premarket approval ("PMA"), application or 510(k) clearance pursuant to Section 510(k) of the FD&C Act. A novel product must go through the more rigorous PMA process if it cannot receive authorization through a 510(k) clearance. FDA has established three different classes of medical devices that indicate the level of risk associated with using a device and the consequent degree of regulatory controls needed to govern its safety and efficacy. Most Class I devices are exempt from 510(k) requirements. Most Class II devices, including the Zio XT and Zio AT monitors, and the Zio ECG Utilization Service System, or the ZEUS System, ZEUS System, require 510(k) clearance from the FDA in order to be marketed in the United States. A 510(k) submission must demonstrate that the device is substantially equivalent to a device legally in commercial distribution in the United States: (1) before May 28, 1976; or (2) to another device that has been cleared through the 510(k) process and determined by FDA to be substantially equivalent. To be substantially equivalent, the proposed device must have the same intended use as the predicate device and either have the same technological characteristics as the predicate device or have different technological characteristics and not raise different questions of safety or effectiveness than the predicate device. Clinical data is sometimes required to support substantial equivalence. In some instances, data from human clinical trials must also be submitted in support of a 510(k) submission. If so, this data must be collected in a manner that conforms with specific requirements in federal regulations. Most Class III devices are high risk devices that pose a significant risk of illness or injury or devices found not to be substantially equivalent to Class I and II predicate devices through the 510(k) process and require PMA. The PMA process for Class III devices is more involved and includes the submission of clinical data to support claims made for the device.

The Zio XT and Zio AT monitors maintain FDA 510(k) clearance as Class II devices, with each new generation of a device receiving individual clearance. In addition, the ZEUS System originally received FDA 510(k) clearance in 2009 as a Class II device. The ZEUS System is the combination of proprietary algorithms and software tools that our certified cardiac technicians utilize to curate the ECG data and create the Zio Report electronically. Significant modifications made to the ZEUS System since its original clearance have been regularly evaluated by the FDA, the most recent update receiving 510(k) clearance in August 2018.

Pervasive and Continuing Regulation

After a device is placed on the market, numerous regulatory requirements continue to apply. These include:

- the FDA's QSR, which requires manufacturers, including their suppliers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the manufacturing process
- labeling regulations and FDA prohibitions against the promotion of products for un-cleared, unapproved or off-label uses
- medical device reporting ("MDR") regulations, which require that manufacturers report to the FDA if their device may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur
- medical device recalls, which require that manufacturers report to the FDA any recall of a medical device, provided the recall was initiated to either reduce a risk to health posed by the device, or to remedy a violation of the FD&C Act caused by the device that may present a risk to health
- post-market surveillance regulations, which apply when necessary to protect the public health or to provide additional safety and effectiveness data for the device

After a device receives 510(k) clearance or PMA approval, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, will require a new clearance or approval. The FDA requires each manufacturer to make this determination initially, but the FDA can review any such decision and can disagree with a manufacturer's determination. If the FDA disagrees with the determination not to seek a new 510(k) clearance or PMA, the FDA may retroactively require a new 510(k) clearance or premarket approval. The FDA could also require a manufacturer to cease marketing and distribution and/or recall the modified device until 510(k) clearance or premarket approval is obtained. Also, in these circumstances, the manufacturer may be subject to significant regulatory fines, penalties, and warning letters.

We have registered with the FDA as a medical device manufacturer and have obtained a manufacturing license from the California Department of Public Health, or CDPH. The FDA and CDPH have broad post-market and regulatory enforcement powers. We are subject to unannounced inspections by the FDA and the Food and Drug Branch of CDPH to determine our compliance with the QSR and other regulations, and these inspections may include the manufacturing facilities of our suppliers. Additionally, NSAI regularly inspects our manufacturing, design and operational facilities to ensure ongoing ISO 13485 compliance and periodically reviews technical design files in accordance with the Medical Device Directive in order to maintain our CE mark.

Failure to comply with applicable regulatory requirements can result in enforcement action by the FDA, which may include any of the following sanctions:

- warning letters, fines, injunctions, consent decrees and civil penalties
- repair, replacement, refunds, recall or seizure of our products
- operating restrictions, partial suspension or total shutdown of production
- refusing our requests for 510(k) clearance or premarket approval of new products, new intended uses or modifications to existing products
- withdrawing 510(k) clearance or premarket approvals that have already been granted
- criminal prosecution

European Union

The Zio XT monitor is regulated in the European Union as a medical device per the European Union Directive 93/42/EEC, also known as the Medical Device Directive ("MDD"). The MDD sets out the basic regulatory framework for medical devices in the European Union. The system of regulating medical devices operates by way of a certification for each medical device. Each certified device is marked with the CE mark which shows that the device has a Certificat de Conformité. There are national bodies known as Competent Authorities in each member state which oversee the implementation of the MDD within their jurisdiction. The means for achieving the requirements for the CE mark vary according to the nature of the device. Devices are classified in accordance with their perceived risks, similarly to the U.S. system. The class of a product determines the conformity assessment required before the CE mark can be placed on a product. Conformity assessments for our products are carried out as required by the MDD. Each member state can appoint Notified Bodies within its jurisdiction. If a Notified Body of one member state has issued a Certificat de Conformité, the device can be sold throughout the European Union without further conformance tests being required in other member states. The CE mark is contingent upon continued compliance with the applicable regulations and the quality system requirements of the ISO 13485 standard. Our current CE mark for Zio XT is issued by the National Standards Authority of Ireland, or NSAI.

Health Insurance Portability and Accountability Act

The Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), established comprehensive federal protection for the privacy and security of health information. Under HIPAA, the Department of Health and Human Services ("HHS"), has issued regulations to protect the privacy and security of protected health information used or disclosed by Covered Entities, including healthcare providers, such as us. HIPAA also regulates standardization of data content, codes and formats used in healthcare transactions and standardization of identifiers for health plans and providers. The privacy regulations protect medical records and other protected health information by limiting their use and release, giving patients the right to access their medical records and limiting most disclosures of health information to the minimum amount necessary to accomplish an intended purpose. The HIPAA security standards require the adoption of administrative, physical, and technical safeguards and the adoption of written security policies and procedures. HIPAA requires Covered Entities to execute Business Associate Agreements with individuals and organizations, or Business Associates, who provide services to Covered Entities and who need access to protected health information. We are a Covered Entity under HIPAA and subject to HIPAA regulations.

In 2009, Congress enacted Subtitle D of the Health Information Technology for Economic and Clinical Health Act ("HITECH"). HITECH amends HIPAA and, among other things, creates new targets for enforcement, imposes new penalties for noncompliance and establishes new breach notification requirements for Covered Entities and Business Associates.

Under HITECH's breach notification requirements, Covered Entities must report breaches of protected health information that has not been encrypted or otherwise secured in accordance with guidance from HHS. Required breach notices must be made as soon as is reasonably practicable, but no later than 60 days following discovery of the breach. Reports must be made to affected individuals and to HHS, and in some cases they must be reported through local and national media, depending on the size of the breach. We are subject to audit under HHS's HITECH-mandated audit program. We may also be audited in connection with a privacy complaint. We are subject to prosecution and/or administrative enforcement and increased civil and criminal penalties for non-compliance, including a new, four-tiered system of monetary penalties adopted under HITECH. We are also subject to enforcement by state attorneys general who were given authority to enforce HIPAA under HITECH. To avoid penalties under the HITECH breach notification provisions, we must ensure that breaches of protected health information are promptly detected and reported within the company, so that we can make all required notifications on a timely basis. However, even if we make required reports on a timely basis, we may still be subject to penalties for the underlying breach.

In addition to the federal privacy regulations, there are a number of state laws regarding the privacy and security of health information and personal data that apply to us. The compliance requirements of these laws, including additional breach reporting requirements, and the penalties for violation vary widely, and new privacy and security laws in this area are evolving. Requirements of these laws and penalties for violations vary widely.

If we or our operations are found to be in violation of HIPAA, HITECH, or their implementing regulations, we may be subject to penalties, including civil and criminal penalties, fines, and exclusion from participation in federal or state healthcare programs, and the curtailment or restructuring of our operations. HITECH increased the civil and criminal penalties that may be imposed against Covered Entities, their Business Associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney's fees and costs associated with pursuing federal civil actions.

Federal, State and Foreign Fraud and Abuse Laws

Because of the significant federal funding involved in CMS programs such as Medicare and Medicaid, Congress and the states have enacted, and actively enforce, a number of laws to eliminate fraud and abuse in federal healthcare programs. Our business is subject to compliance with these laws. In March 2010, the Patient Protection and Affordable Care Act, as amended by the Healthcare and Education Affordability Reconciliation Act, which we refer to collectively as the Affordable Care Act, was enacted in the United States. The Affordable Care Act expands the government's investigative and enforcement authority and increases the penalties for fraud and abuse, including amendments to both the Anti-Kickback Statute and the False Claims Act, to make it easier to bring suit under these statutes. The Affordable Care Act also allocates additional resources and tools for the government to police healthcare fraud, with expanded subpoena power for HHS, additional funding to investigate fraud and abuse across the healthcare system and expanded use of recovery audit contractors for enforcement.

Anti-Kickback Statute

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

The definition of "remuneration" has been broadly interpreted to include anything of value, including, for example, gifts, certain discounts, the furnishing of free supplies, equipment or services, credit arrangements, payment of cash and waivers of payments. Several courts have interpreted the statute's intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered businesses, the statute has been violated. Penalties for violations include criminal penalties and civil sanctions such as fines, imprisonment and possible exclusion from Medicare, Medicaid and other federal healthcare programs. In addition, some kickback allegations have been claimed to violate the federal False Claims Act.

The Anti-Kickback Statute is broad and prohibits many arrangements and practices that are otherwise lawful in businesses outside of the healthcare industry. Recognizing that the Anti- Kickback Statute is broad and may technically prohibit many innocuous or beneficial arrangements, Congress authorized the Office of Inspector General ("OIG") of the HHS to issue a series of regulations known as "safe harbors." These safe harbors set forth provisions that, if all their applicable requirements are met, will assure healthcare providers and other parties that they will not be prosecuted under the Anti-Kickback Statute. The failure of a transaction or arrangement to fit precisely within one or more safe harbors does not necessarily mean that it is illegal or that prosecution will be pursued. However, conduct and business arrangements that do not fully satisfy an applicable safe harbor may result in increased scrutiny by government enforcement authorities such as OIG.

Many states have adopted laws similar to the Anti-Kickback Statute. Some of these state prohibitions apply to referral of recipients for healthcare products or services reimbursed by any source, not only CMS programs.

Government officials have focused their enforcement efforts on the marketing of healthcare services and products, among other activities, and recently have brought cases against companies, and certain individual sales, marketing and executive personnel, for allegedly offering unlawful inducements to potential or existing customers in an attempt to procure their business.

Federal False Claims Act

Another development affecting the healthcare industry is the increased use of the federal False Claims Act ("FCA") and in particular, action brought pursuant to the FCA's "whistleblower" or " *qui tam* " provisions. The FCA imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment by a federal healthcare program. The *qui tam* provisions of the FCA allow a private individual to bring actions on behalf of the federal government

alleging that the defendant has violated the FCA and to share in any monetary recovery. As a result, in re cent years, the number of suits brought against healthcare providers by private individuals has increased dramatically. In addition, various states have enacted false claims laws analogous to the FCA, and many of these state laws apply where a claim is submitted to any third-party payor and not only a federal healthcare program.

When an entity is determined to have violated the FCA, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties of between approximately $11,000 and $22,000 for each separate instance of false claim. As part of any settlement, the government will usually require the entity to enter into a corporate integrity agreement, which imposes certain compliance, certification and reporting obligations. There are many potential bases for liability under the FCA. Liability arises, primarily, when an entity knowingly submits, or causes another to submit, a false claim for reimbursement to the federal government. The federal government has used the FCA to assert liability on the basis of inadequate care, kickbacks and other improper referrals, and improper use of CMS billing numbers, in addition to the more predictable allegations of misrepresentations with respect to the services rendered. In addition, the federal government has prosecuted companies under the FCA in connection with off-label promotion of products. Activities relating to the reporting of discount and rebate information and other information affecting federal, state and third-party reimbursement of our products and services and the sale and marketing of our products and services may be subject to scrutiny under these laws.

While we are unaware of any current matters, we are unable to predict whether we will be subject to actions under the FCA or a similar state law, or the impact of such actions. However, the costs of defending such claims, as well as any sanctions imposed, could significantly affect our financial performance.

Open Payments

The Physician Payment Sunshine Act, known as "Open Payments" and enacted as part of the Affordable Care Act, requires all pharmaceutical and medical device manufacturers of products covered by Medicare, Medicaid or the Children's Health Insurance Program to report annually to HHS: (i) payments and transfers of value to teaching hospitals and licensed physicians, (ii) physician ownership in the manufacturer, and (iii) research payments. The payments required to be reported include the cost of meals provided to a physician, travel reimbursements and other transfers of value, including those provided as part of contracted services such as speaker programs, advisory boards, consultation services and clinical trial services. The statute requires the federal government to make reported information available to the public. Failure to comply with the reporting requirements can result in significant civil monetary penalties ranging from $1,000 to $10,000 for each payment or other transfer of value that is not reported (up to a maximum per annual report of $150,000) and from $10,000 to $100,000 for each knowing failure to report (up to a maximum per annual report of $1.0 million). We are subject to Open Payments and the information we disclose may lead to greater scrutiny, which may result in modifications to established practices and additional costs. Additionally, similar reporting requirements have also been enacted on the state level domestically, and an increasing number of countries worldwide either have adopted or are considering similar laws requiring transparency of interactions with healthcare professionals.

Foreign Corrupt Practices Act

The Foreign Corrupt Practices Act ("FCPA") prohibits any U.S. individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring us to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, if any, and to devise and maintain an adequate system of internal accounting controls for international operations.

International Laws

In Europe, various countries have adopted anti-bribery laws providing for severe consequences in the form of criminal penalties and significant fines for individuals or companies committing a bribery offense. Violations of these anti-bribery laws, or allegations of such violations, could have a negative impact on our business, results of operations and reputation.

For instance, in the United Kingdom, under the U.K. Bribery Act 2010, a bribery occurs when a person offers, gives or promises to give a financial or other advantage to induce or reward another individual to improperly perform certain functions or activities, including any function of a public nature. Bribery of foreign public officials also falls within the scope of the U.K. Bribery Act 2010. An individual found in violation of the U.K. Bribery Act 2010, faces imprisonment of up to 10 years. In addition, the individual can be subject to an unlimited fine, as can commercial organizations for failure to prevent bribery.

There are also international privacy laws that impose restrictions on the access, use, and disclosure of health information. All of these laws may impact our business. Our failure to comply with these privacy laws or significant changes in the laws restricting our ability to obtain required patient information could significantly impact our business and our future business plans.

U.S. Centers for Medicare and Medicaid Services (CMS)

Medicare is a federal program administered by CMS through fiscal intermediaries and carriers. Available to individuals age 65 or over, and certain other individuals, the Medicare program provides, among other things, healthcare benefits that cover, within prescribed limits, the major costs of most medically necessary care for such individuals, subject to certain deductibles and copayments.

CMS has established guidelines for the coverage and reimbursement of certain products, supplies and services. In general, in order to be reimbursed by Medicare, a healthcare product or service furnished to a Medicare beneficiary must be reasonable and necessary for the diagnosis or treatment of an illness or injury, or to improve the functioning of a malformed body part. The methodology for determining coverage status and the amount of Medicare reimbursement varies based upon, among other factors, the setting in which a Medicare beneficiary received healthcare products and services. Any changes in federal legislation, regulations and policy affecting Medicare coverage and reimbursement relative to our Zio service could have a material effect on our performance.

CMS also administers the Medicaid program, a cooperative federal/state program that provides medical assistance benefits to qualifying low income and medically needy persons. State participation in Medicaid is optional, and each state is given discretion in developing and administering its own Medicaid program, subject to certain federal requirements pertaining to payment levels, eligibility criteria and minimum categories of services. The coverage, method and level of reimbursement varies from state to state and is subject to each state's budget restraints. Changes to the coverage, method or level of reimbursement for our Zio service may affect future revenue negatively if reimbursement amounts are decreased or discontinued.

All CMS programs are subject to statutory and regulatory changes, retroactive and prospective rate adjustments, administrative rulings, interpretations of policy, intermediary determinations, and government funding restrictions, all of which may materially increase or decrease the rate of program payments to healthcare facilities and other healthcare providers, including those paid for our Zio service.

Our facilities in Illinois, California and Texas are enrolled as independent diagnostic testing facilities ("IDTFs") defined by CMS as entities independent of a hospital or physician's office in which diagnostic tests are performed by licensed or certified non-physician personnel under appropriate physician supervision. CMS has set certain performance standards that every IDTF must meet in order to obtain or maintain its billing privileges.

United States Healthcare Reform

Changes in healthcare policy could increase our costs and subject us to additional regulatory requirements that may interrupt commercialization of our current and future solutions. Changes in healthcare policy could increase our costs, decrease our revenue and impact sales of and reimbursement for our current and future products and services. The Affordable Care Act ("ACA") substantially changes the way healthcare is financed by both governmental and private insurers, and significantly impacts our industry. The ACA contains a number of provisions that impact our business and operations, some of which in ways we cannot currently predict, including those governing enrollment in federal healthcare programs and reimbursement changes.

The current presidential administration and Congress are expected to attempt to make sweeping changes to the current health care laws. It is uncertain how modification or repeal of any of the provisions of the ACA, including as a result of current and future executive orders and legislative actions, will impact us and the medical device industry as a whole. Any changes to, or repeal of, the ACA may have a material adverse effect on our results of operations. We cannot predict what other health care programs and regulations will ultimately be implemented at the federal or state level or the effect of any future legislation or regulation in the United States may have on our business.

Employees

As of December 31, 2018, we had 748 full-time employees. None of our employees is represented by a labor union or is a party to a collective bargaining agreement, and we believe that our employee relations are good.

Corporate and Other Information

We were incorporated in Delaware on September 14, 2006. Our principal executive offices are located at 650 Townsend Street, Suite 500, San Francisco, CA 94103, and our telephone number is (415) 632-5700. Our website address is www.iRhythmTech.com. References to our website address do not constitute incorporation by reference of the information contained on the website, and the information contained on, or accessible through, our website is not part of this document.

We make available, free of charge on our corporate website, copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements, and all amendments to these reports, as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission pursuant to Section 13(a) or 15(d) of the Securities Exchange Act. We also show detail about stock trading by corporate insiders by providing access to SEC Forms 3, 4 and 5. This information may also be obtained from the SEC's on-line database, which is located at www.sec.gov. Our common stock is traded on the NASDAQ Stock Market under the symbol “IRTC.”

Item 1A. Risk Factors.

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below, together with all of the other information contained in this Annual Report on Form 10-K, including our financial statements and the related notes thereto, before making a decision to invest in our common stock. The realization of any of the following risks could materially and adversely affect our business, financial condition, operating results and prospects. In that event, the price of our common stock could decline, and you could lose part or all of your investment.

Risks Related to Our Business

We have a history of net losses, which we expect to continue, and we may not be able to achieve or sustain profitability in the future.

We have incurred net losses since our inception in September 2006. For the years ended December 31, 2018 and 2017 we had net losses of $48.3 million and $29.4 million, respectively, and we expect to continue to incur additional losses. As of December 31, 2018, we had an accumulated deficit of $203.5 million. The losses and accumulated deficit were primarily due to the substantial investments we made to develop and improve our technology and products and improve our business and the Zio service through research and development efforts and infrastructure improvements. Over the next several years, we expect to continue to devote substantially all of our resources to increase adoption of and reimbursement for our Zio service, which includes Zio XT and Zio AT, and to develop additional arrhythmia detection and management products and services. These efforts may prove more expensive than we currently anticipate and we may not succeed in increasing our revenue sufficiently to offset these higher expenses or at all. Accordingly, we cannot assure you that we will achieve profitability in the future or that, if we do become profitable, we will sustain profitability. Our failure to achieve and sustain profitability in the future could cause the market price of our common stock to decline.

Our business is dependent upon physicians adopting our Zio service and if we fail to obtain broad adoption, our business would be adversely affected.

Our success will depend on our ability to bring awareness to the Zio brand and educate physicians regarding the benefits of our Zio service over existing products and services, such as Holter monitors and event monitors, and to persuade them to prescribe the Zio service as the diagnostic product for their patients. We do not know if the Zio service will be successful over the long term and market acceptance may be hindered if physicians are not presented with compelling data demonstrating the efficacy of our service compared to alternative technologies. Any studies we, or third parties which we sponsor, may conduct comparing our Zio service with alternative technologies will be expensive, time consuming and may not yield positive results. Additionally, adoption will be directly influenced by a number of financial factors, including the ability of providers to obtain sufficient reimbursement from third-party commercial payors, and the Centers for Medicare & Medicaid Services (“CMS”), for the professional services they provide in applying the Zio monitor and analyzing the Zio report. The efficacy, safety, performance and cost-effectiveness of our Zio service, on a stand-alone basis and relative to competing services, will determine the availability and level of reimbursement received by us and providers. Some payors do not have pricing contracts with us setting forth the Zio service reimbursement rates for us and providers. Physicians may be reluctant to prescribe the Zio service to patients covered by such non-contracted insurance policies because of the uncertainty surrounding reimbursement rates and the administrative burden of interfacing with patients to answer their questions and support their efforts to obtain adequate reimbursement for the Zio service. If physicians do not adopt and prescribe our Zio service, our revenue will not increase and our financial condition will suffer as a result.

Our revenue relies substantially on the Zio service, which is currently our only product offering. If the Zio service or future product offerings fail to gain, or lose, market acceptance, our business will suffer.

Our current revenue is dependent on prescriptions of the Zio service, and we expect that sales of the Zio service will account for substantially all of our revenue for the foreseeable future. We are in various stages of research and development for other diagnostic solutions and new indications for our technology and the Zio service; however, there can be no assurance that we will be able to successfully develop and commercialize any new products or services. Any new products may not be accepted by physicians or may merely replace revenue generated by our Zio service and not generate additional revenue. If we have difficulty launching new products, our reputation may be harmed and our financial results adversely affected. In order to substantially increase our revenue, we will need to target physicians other than cardiologists, such as emergency room doctors, primary care physicians and other physicians with whom we have had little contact and may require a different type of selling effort. If we are unable to increase prescriptions of the Zio service, expand reimbursement for the Zio service, or successfully develop and commercialize new products and services, our revenue and our ability to achieve and sustain profitability would be impaired.

Our limited operating history makes it difficult to evaluate our current business and future prospects

We first commercialized the Zio service in the first quarter of 2011 and do not have a long history operating as a commercial company. As a result, our operating results are not predictable. Since 2011, our revenue has been derived, and we expect it to continue to be derived, substantially from sales of the Zio service and its predecessor products. Because of its recent commercial introduction, the Zio service has limited product and brand recognition. In addition, demand for our services may decline or may not increase as quickly as we expect. Failure of the Zio service to significantly penetrate current or new markets would harm our business, financial condition and results of operations.

Our quarterly and annual results may fluctuate significantly and may not fully reflect the underlying performance of our business.

Our quarterly and annual results of operations, including our revenue, profitability and cash flow, may vary significantly in the future and period-to-period comparisons of our operating results may not be meaningful. Accordingly, the results of any one quarter or period should not be relied upon as an indication of future performance. Our quarterly and annual financial results may fluctuate as a result of a variety of factors, many of which are outside our control and, as a result, may not fully reflect the underlying performance of our business. Fluctuation in quarterly and annual results may decrease the value of our common stock. Factors that may cause fluctuations in our quarterly and annual results include, without limitation:

- market awareness and acceptance of the Zio service
- our ability to get payors under contract at acceptable reimbursement rates
- the availability of reimbursement for the Zio service through government programs
- our ability to attract new customers and improve our business with existing customers
- results of our clinical trials and publication of studies by us, competitors or third parties
- the timing and success of new product introductions by us or our competitors or any other change in the competitive dynamics of our industry, including consolidation among competitors, customers or strategic partners
- the amount and timing of costs and expenses related to the maintenance and expansion of our business and operations
- changes in our pricing policies or those of our competitors
- general economic, industry and market conditions
- the regulatory environment
- expenses associated with unforeseen product quality issues
- timing of physician prescriptions and demand for our Zio service
- seasonality factors, such as patient and physician vacation schedules, severe weather conditions and insurance deductibles, that hamper or otherwise restrict when a patient seeking diagnostic services such as the Zio service visits the prescribing physician
- the hiring, training and retention of key employees, including our ability to expand our sales team

- litigation or other claims against us for intellectual property infringement or otherwise
- our ability to obtain additional financing as necessary
- advances and trends in new technologies and industry standards

Because our quarterly results may fluctuate, period-to-period comparisons may not be the best indication of the underlying results of our business and should only be relied upon as one factor in determining how our business is performing.

We have noticed seasonality in the use of our Zio service which, along with other factors such as severe weather, may cause quarterly fluctuations in our revenue.

During the summer months and the holiday season, we have observed that the use of our Zio service decreases, which reduces our revenue during those periods. We believe that the decrease in demand may result from physicians or their patients taking vacations. Severe weather conditions or natural disasters also may hamper or otherwise restrict when patients seeking diagnostic services, such as the Zio service, visit prescribing physicians. Similarly, we generally experience some effects of seasonality due to the renewal of insurance deductibles at the beginning of the calendar year. These factors may cause our results of operations to vary from quarter to quarter.

Reimbursement by CMS is highly regulated and subject to change; our failure to comply with applicable regulations could result in decreased revenue and may subject us to penalties or have an adverse impact on our business.

For the year ended December 31, 2018, we received approximately 28% of our revenue from reimbursement for our Zio service by CMS. Under CMS guidelines for participation in the Medicare program CMS designates us as an independent diagnostic treatment facility ("IDTF"). CMS imposes extensive and detailed requirements on IDTFs, including but not limited to, rules that govern how we structure our relationships with physicians, how and when we submit reimbursement claims, how we operate our monitoring facilities and how and where we provide our monitoring solutions. Our failure to comply with applicable CMS rules could result in a discontinuation of our reimbursement under the CMS payment programs, our being required to return funds already paid to us, civil monetary penalties, criminal penalties and/or exclusion from the CMS programs. In addition, regional Medicare Administrative Contractors ("MACs") change from time to time, which may result in changes to our reimbursement rates, increased administrative burden and reimbursement delay.

Changes in public health insurance coverage and CMS reimbursement rates for the Zio service could affect the adoption of the Zio service and our future revenue.

Government payors may change their coverage and reimbursement policies, as well as payment amounts, in a way that would prevent or limit reimbursement for our Zio service, which would significantly harm our business. Government and other third-party payors require us to report the service for which we are seeking reimbursement by using a Current Procedural Terminology, or CPT, code-set maintained by the American Medical Association. For Zio XT, we have secured temporary CPT codes used for newly introduced technologies and specific to our category of diagnostic monitoring through 2022. The fees associated with these temporary CPT codes are also temporary and may be modified by CMS. Relative to the CMS applicable fees after 2022, it is incumbent upon us to successfully secure permanent CPT codes from the AMA by 2022, which are valued by CMS and remain mostly unchanged for five years after the values are initially determined. To the extent CMS reduces its reimbursement rates for the Zio service, third-party payors may reduce the rates at which they reimburse the Zio service, which could adversely affect our revenue.

Determinations of which products or services will be reimbursed under Medicare can be developed at the national level through a national coverage determination ("NCD") by CMS, or at the local level through a local coverage determination, or an LCD, by one or more of the regional MACs which are private contractors that process and pay claims on behalf of CMS for different regions. In the absence of an NCD, as is the case with Zio XT, the MAC with jurisdiction over a specific geographic region will have the discretion to make an LCD and determine the fee schedule and reimbursement rate associated with temporary CPT codes, and regional LCDs may not always be consistent among all MACs or regions within the United States. We have in the past been, and in the future may be, required to respond to potential changes in reimbursement rates for our products. Reductions in reimbursement rates, if enacted, could have a material adverse effect on our business. Further, a reduction in coverage by Medicare could cause some commercial third-party payers to implement similar reductions in their coverage or level of reimbursement of the Zio service. Given the evolving nature of the healthcare industry and on-going healthcare cost reforms, we are and will continue to be subject to changes in the level of Medicare coverage for our products, and unfavorable coverage determinations at the national or local level could adversely affect our business and results of operations.

Controls imposed by CMS and commercial third-party payors designed to reduce costs, commonly referred to as "utilization review", may affect our operations. Federal law contains numerous provisions designed to ensure that services rendered to CMS patients meet professionally recognized standards and are medically necessary, appropriate for the specific patient and cost-effective. These provisions include a requirement that a sampling of CMS patients must be reviewed by quality improvement organizations, which review the appropriateness of product prescriptions, the quality of care provided, and the appropriateness of reimbursement costs. Quality improvement organizations may deny payment for services or assess fines and also have the authority to recommend to the U.S. Department of Health and Human Services, that a provider which is in substantial noncompliance with the standards of the quality improvement organization be excluded from participation in the Medicare program. The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or Affordable Care Act, potentially expands the use of prepayment review by Medicare contractors by eliminating statutory restrictions on their use, and, as a result, efforts to impose more stringent cost controls are expected to continue. Utilization review is also a requirement of most non-governmental managed care organizations and other third-party payors. To date these controls have not had a significant effect on our operations, but significant limits on the scope of services reimbursed and on reimbursement rates and fees could have a material, adverse effect on our business, financial position and results of operations in the future.

Also, healthcare reform legislation or regulation may be proposed or enacted in the future that may adversely affect such policies and amounts. Changes in the healthcare industry directed at controlling healthcare costs or perceived over-utilization of ambulatory cardiac monitoring products and services could reduce the volume of Zio services prescribed by physicians. If more healthcare cost controls are broadly instituted throughout the healthcare industry, the volume of cardiac monitoring solutions prescribed could decrease, resulting in pricing pressure and declining demand for our Zio service. We cannot predict whether and to what extent existing coverage and reimbursement will continue to be available. If physicians, hospitals and clinics are unable to obtain adequate coverage and government reimbursement of the Zio service, they are significantly less likely to use the Zio service and our business and operating results would be harmed.

The current presidential administration and Congress may attempt to make sweeping changes to the current health care laws and their implementing regulations. It is uncertain how modification or repeal of any of the provisions of the Affordable Care Act or its implementing regulations, including as a result of current and future executive orders and legislative actions, will impact us and the medical device industry as a whole. Any changes to, or repeal of, the Affordable Care Act or its implementing regulations may have a material adverse effect on our results of operations. We cannot predict what other health care programs and regulations will ultimately be implemented at the federal or state level or the effect of any future legislation or regulation in the United States may have on our business.

If third-party commercial payors do not provide any or adequate reimbursement, rescind or modify their reimbursement policies or delay payments for our products, including the Zio service, or if we are unable to successfully negotiate reimbursement contracts, our commercial success could be compromised.

We receive a substantial portion of our revenue from third-party private commercial payors, such as medical insurance companies. These commercial payors may reimburse our products, including the Zio service, at inadequate rates, suspend or discontinue reimbursement at any time or require or increase co-payments from patients. Any such actions could have a negative effect on our revenue and the revenue of providers prescribing our products. Physicians may not prescribe our products unless payors reimburse a substantial portion of the submitted costs, including the physician's, hospital's or clinic's charges related to the application of certain products, including the Zio monitor and the interpretation of results which may inform a diagnosis. Additionally, certain payors may require that physicians prescribe another arrhythmia diagnostic monitoring option prior to prescribing the Zio service. There is significant uncertainty concerning third-party reimbursement of any new product or service until a contracted rate is established. Reimbursement by a commercial payor may depend on a number of factors, including a payor's determination that the prescribed service is:

- not experimental or investigational
- appropriate for the specific patient
- cost effective
- supported by peer-reviewed publications
- advocated by key opinion leaders

Since each payor makes its own decision as to whether to establish a policy concerning reimbursement or enter into a contract with us to set the price of reimbursement, seeking reimbursement on a payor-by-payor basis is a time consuming and costly process to which we dedicate substantial resources. If we do not dedicate sufficient resources to establishing contracts with third-party commercial payors, or continue to validate the clinical value of Zio services through studies and physician adoption, the amount that we are reimbursed for our products may decline, our revenue may become less predictable, and we will need to expend more efforts on a claim-by-claim basis to obtain reimbursement for our products.

A substantial portion of our revenue is derived from third-party commercial payors who have pricing contracts with us, which means that the payor has agreed to a defined reimbursement rate for our products. These contracts provide a high degree of certainty to us, physicians and hospitals and clinics with respect to the rate at which our products will be reimbursed. These contracts also impose a number of obligations regarding billing and other matters, and our noncompliance with a material term of such contracts may result in termination of the contract and loss of any associated revenue. A portion of our revenue is derived from third-party commercial payors without such contracts in place. Without a contracted rate, reimbursement claims for our products are often denied upon submission, and we or our billing partner, XIFIN, Inc. ("XIFIN"), must appeal the denial. The appeals process is time-consuming and expensive, and may not result in full or any payment. In cases where there is no contracted rate for reimbursement, it may be more difficult for us to acquire new accounts with physicians, hospitals and clinics. In addition, in the absence of a contracted rate, there is typically a greater out-of-network, co-insurance or co-payment requirement which may result in payment delays or decreased likelihood of full collection. In some cases involving non-contracted insurance companies, we may not be able to collect any amount or only a portion of the invoiced amount for our products.

We expect to continue to dedicate resources to establishing pricing contracts with non-contracted insurance companies; however, we can provide no assurance that we will be successful in obtaining such pricing contracts or that such pricing contracts will contain reimbursement for our products at rates that are favorable to us. If we fail to establish these contracts, we will be able to recognize revenue only based on an estimated average collection rate per historical cash collections. In addition, XIFIN may need to expend significant resources obtaining reimbursement on a claim-by-claim basis and in adjudicating claims which are denied altogether or not reimbursed at acceptable rates. We currently pay XIFIN a percentage of the amounts it collects on our behalf and this percentage may increase in the future if it needs to expend more resources in adjudicating such claims. We sometimes informally engage physicians, hospitals and clinics to help establish contracts with third-party payors who insure their patients. We cannot provide any assurance that such physicians, hospitals and clinics will continue to help us establish contracts in the future. If we fail to establish contracts with more third-party payors it may adversely affect our ability to increase our revenue. In addition, a failure to enter into contracts could affect a physician's willingness to prescribe our products because of the administrative work involved in interacting with patients to answer their questions and help them obtain reimbursement for our products. If physicians are unwilling to prescribe our products due to the lack of certainty and administrative work involved with patients covered by non-contracted insurance companies, or patients covered by non-contracted insurance companies are unwilling to risk that their insurance may charge additional out-of-pocket fees, our revenue could decline or fail to increase.

Our continued rapid growth could strain our personnel resources and infrastructure, and if we are unable to manage the anticipated growth of our business, our future revenue and operating results may be harmed.

We have experienced rapid growth in our headcount and in our operations. Any growth that we experience in the future will provide challenges to our organization, requiring us to expand our sales personnel and manufacturing operations and general and administrative infrastructure. In addition to the need to scale our clinical operations capacity, future growth will impose significant added responsibilities on management, including the need to identify, recruit, train and integrate additional employees. Rapid expansion in personnel could mean that less experienced people manufacture our Zio monitors, market and sell our Zio service and analyze the data to produce Zio reports, which could result in inefficiencies and unanticipated costs, reduced quality in our Zio reports and disruptions to our operations. As we seek to gain greater efficiency, we may expand the automated portion of our Zio service and require productivity improvements from our certified cardiographic technicians. Such improvements could compromise the quality of our Zio reports. In addition, rapid and significant growth may strain our administrative and operational infrastructure. Our ability to manage our business and growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. If we are unable to manage our growth effectively, it may be difficult for us to execute our business strategy and our business could be harmed.

If we are unable to support demand for the Zio service or any of our future products or services, our business could suffer.

As demand for the Zio service or any of our future products or services increases, we will need to continue to scale our manufacturing capacity and algorithm processing technology, expand customer service, billing and systems processes and enhance our internal quality assurance program. We will also need additional certified cardiographic technicians and other personnel to process higher volumes of data. We cannot assure you that any increases in scale, related improvements and quality assurance will be successfully implemented or that appropriate personnel will be available to facilitate growth of our business. Failure to implement necessary procedures, transition to new processes or hire the necessary personnel could result in higher costs of processing data or inability to meet increased demand. There can be no assurance that we will be able to perform our data analysis on a timely basis at a level consistent with demand, quality standards and physician expectations. If we encounter difficulty meeting market demand, quality standards or physician expectations, our reputation could be harmed and our future prospects and business could suffer.

We plan to introduce new products and services and our business will be harmed if we are not successful in selling these new products and services to our existing customers and new customers

We recently received FDA clearance for our Zio AT ECG Monitoring System, or Zio AT, which is designed to provide timely transmission of data during the wear period. We do not yet know whether Zio AT or any other new products and services will be well received and broadly adopted by physicians and their patients or whether sales will be sufficient for us to offset the costs of development, implementation, support, operation, sales and marketing. Although we have performed extensive testing of our new products and services, their broad-based implementation may require more support than we anticipate, which would further increase our expenses. Additionally, new products and services may subject us to additional risks of product performance, customer complaints and litigation. If sales of our new products and services are lower than we expect, or if we expend additional resources to fix unforeseen problems and develop modifications, our operating margins are likely to decrease.

If we are unable to keep up with demand for the Zio service, our revenue could be impaired, market acceptance for the Zio service could be harmed and physicians may instead prescribe our competitors' products and services.

As demand for the Zio service increases, we may encounter production or service delays or shortfalls. Such production or service delays or shortfalls may be caused by many factors, including the following:

- we intend to continue to expand our manufacturing capacity, and our production processes may have to change to accommodate this growth
- key components of the Zio monitors are provided by a single supplier or limited number of suppliers, and we do not maintain large inventory levels of these components; if we experience a shortage or quality issues in any of these components, we would need to identify and qualify new supply sources, which could increase our expenses and result in manufacturing delays
- Global demand and supply factors concerning commodity components common to all electronic circuits, including Zio monitors, could result in shortages that manifest as extended lead times for circuit boards, which could limit our ability to sustain and/or grow our business
- we may experience a delay in completing validation and verification testing for new production processes and/or equipment at our manufacturing facilities
- we are subject to state, federal and international regulations, including the FDA's Quality System Regulation, ("QSR"), for both the manufacture of the Zio monitor and the provision of the Zio service, noncompliance with which could cause an interruption in our manufacturing and services
- to increase our manufacturing output significantly and scale our services, we will have to attract and retain qualified employees for our operations

Our inability to successfully manufacture our Zio monitors in sufficient quantities, or provide the Zio service in a timely manner, would materially harm our business.

Our manufacturing facilities and processes and those of our third-party suppliers are subject to unannounced FDA, state and Notified Body regulatory inspections for compliance with the QSR and MDD requirements. Developing and maintaining a compliant quality system is time consuming and expensive. Failure to maintain compliance with, or not fully complying with the requirements of the FDA and state regulators could result in enforcement actions against us or our third-party suppliers, which could include the issuance of warning letters, adverse publicity, seizures, prohibitions on product sales, recalls and civil and criminal penalties, any one of which could significantly impact our manufacturing supply and provision of services and impair our financial results.

We depend on third-party vendors to manufacture some of our components, which could make us vulnerable to supply shortages and price fluctuations that could harm our business.

We rely on third-party vendors for components used in our Zio monitors. Our reliance on third-party vendors subjects us to a number of risks, including:

- inability to obtain adequate supply in a timely manner or on commercially reasonable terms
- interruption of supply resulting from modifications to, or discontinuation of, a supplier's operations
- production delays related to the evaluation and testing of products from alternative suppliers and corresponding regulatory qualifications

- inability of the manufacturer or supplier to comply with the QSR and state regulatory authorities
- delays in product shipments resulting from uncorrected defects, reliability issues, or a supplier's failure to consistently produce quality components
- price fluctuations due to a lack of long-term supply arrangements with our suppliers for key components
- inability to control the quality of products manufactured by third parties
- delays in delivery by our suppliers due to changes in demand from us or their other customers

Any significant delay or interruption in the supply of components or sub-assemblies, or our inability to obtain substitute components, sub-assemblies or materials from alternate sources at acceptable prices and in a timely manner could impair our ability to meet the demand for our Zio service and harm our business.

We rely on single suppliers for some of the materials used in our products, and if any of those suppliers are unable or unwilling to produce these materials or supply them in the quantities that we need at the quality we require, we may not be able to find replacements or transition to alternative suppliers before our business is materially impacted.

We rely on single suppliers for the supply of our adhesive substrate, disposable plastic housings, instruments and other materials that we use to manufacture our Zio monitors. These components and materials are critical and there are relatively few alternative sources of supply. We have not qualified additional suppliers for some of these components and materials and we do not carry a significant inventory of these items. While we believe that alternative sources of supply may be available, we cannot be certain whether they will be available if and when we need them and that any alternative suppliers would be able to provide the quantity and quality of components and materials that we would need to manufacture our Zio monitors if our existing suppliers were unable to satisfy our supply requirements. To utilize other supply sources, we would need to identify and qualify new suppliers to our quality standards, which could result in manufacturing delays and increase our expenses. Any supply interruption could limit our ability to manufacture our products and could therefore harm our business, financial condition and results of operations. If our current suppliers and any alternative suppliers do not provide us with the materials we need to manufacture our products or perform our services, if the materials do not meet our quality specifications, or if we cannot obtain acceptable substitute materials, an interruption in our Zio service could occur. Any such interruption may significantly affect our future revenue and harm our relations and reputation with physicians, hospitals, clinics and patients.

If our manufacturing facility becomes damaged or inoperable, or if we are required to vacate the facility, we may be unable to manufacture our Zio monitors or we may experience delays in production or an increase in costs which could adversely affect our results of operations.

We currently manufacture and assemble the Zio monitors in only one location. Our products are comprised of components sourced from a variety of contract manufacturers, with final assembly completed at our facility in Cypress, California. Our facility and equipment, or those of our suppliers, could be harmed or rendered inoperable by natural or man-made disasters, including fire, earthquake, terrorism, flooding and power outages. Any of these may render it difficult or impossible for us to manufacture products for some period of time. If our Cypress facility is inoperable for even a short period of time, the inability to manufacture our Zio monitors, and the interruption in research and development of any future products, may result in harm to our reputation, increased costs, the loss of orders and lower revenue. Furthermore, it could be costly and time consuming to repair or replace our facilities and the equipment we use to perform our research and development work and manufacture our products.

If we fail to increase our sales and marketing capabilities and develop broad brand awareness in a cost effective manner, our growth will be impeded and our business may suffer.

We plan to continue to expand and optimize our sales and marketing infrastructure in order to increase our prescribing physician base and our business. Identifying and recruiting qualified personnel and training them in the application of the Zio service, on applicable federal and state laws and regulations and on our internal policies and procedures requires significant time, expense and attention. It often takes several months or more before a sales representative is fully trained and productive. Our business may be harmed if our efforts to expand and train our sales force do not generate a corresponding increase in revenue. In particular, if we are unable to hire, develop and retain talented sales personnel or if new sales personnel are unable to achieve desired productivity levels in a reasonable period of time, we may not be able to realize the expected benefits of this investment or increase our revenue.

Our ability to increase our customer base and achieve broader market acceptance of our products will depend, to a significant extent on our ability to expand our marketing efforts. We plan to dedicate significant resources to our marketing programs. Our business may be harmed if our marketing efforts and expenditures do not generate a corresponding increase in revenue.

In addition, we believe that developing and maintaining broad awareness of our brand in a cost effective manner is critical to achieving broad acceptance of the Zio service and penetrating new accounts. Brand promotion activities may not generate patient or physician awareness or increase revenue, and even if they do, any increase in revenue may not offset the costs and expenses we incur in building our brand. If we fail to successfully promote, maintain and protect our brand, we may fail to attract or retain the physician acceptance necessary to realize a sufficient return on our brand building efforts, or to achieve the level of brand awareness that is critical for broad adoption of the Zio service.

Billing for our Zio service is complex, and we must dedicate substantial time and resources to the billing process.

Billing for IDTF services is complex, time consuming and expensive. Depending on the billing arrangement and applicable law, we bill several types of payors, including CMS, third-party commercial payors, institutions and patients, which may have different billing requirements procedures or expectations. We also must bill patient co-payments, co-insurance and deductibles. We face risk in our collection efforts, including potential write-offs of doubtful accounts and long collection cycles, which could adversely affect our business, financial condition and results of operations.

Several factors make the billing and collection process uncertain, including:

- differences between the submitted price for our Zio service and the reimbursement rates of payors
- compliance with complex federal and state regulations related to billing CMS
- differences in coverage among payors and the effect of patient co-payments, co-insurance and deductibles
- differences in information and billing requirements among payors
- incorrect or missing patient history, indications or billing information

Additionally, our billing activities require us to implement compliance procedures and oversight, train and monitor our employees and undertake internal review procedures to evaluate compliance with applicable laws, regulations and internal policies. Payors also conduct audits to evaluate claims, which may add further cost and uncertainty to the billing process. These billing complexities, and the related uncertainty in obtaining payment for our Zio service, could negatively affect our revenue and cash flow, our ability to achieve profitability, and the consistency and comparability of our results of operations.

The operation of our call centers and monitoring facilities is subject to rules and regulations governing IDTFs; failure to comply with these rules could prevent us from receiving reimbursement from CMS and some commercial payors.

In order to get reimbursed by CMS, we must establish an IDTF. IDTFs are defined by CMS as entities independent of a hospital or physician's office in which diagnostic tests are performed by licensed or certified nonphysician personnel under appropriate physician supervision. Our IDTFs are staffed by certified cardiographic technicians, who are overseen by a medical director who reviews the accuracy of the data we curate and from which we prepare reports. The existence of an IDTF allows us to bill a government payor for the Zio service through one or more MACs, such as Novitas Solutions, Noridian Healthcare Solutions and Palmetto GBA. MACs are companies that operate on behalf of the federal government to process claims for reimbursement and allow us to obtain reimbursement for our Zio service at CMS defined rates. Certification as an IDTF requires that we follow strict regulations governing how the center operates, such as requirements regarding the experience and certifications of the certified cardiographic technicians. In addition, many commercial payors require our IDTFs to maintain accreditation and certification with the Joint Commission of American Hospitals. To do so we must demonstrate a specified quality standard and are subject to routine inspection and audits. These rules and regulations vary from location to location and are subject to change. If they change, we may have to change the operating procedures at our IDTFs, which could increase our costs significantly. If we fail to obtain and maintain IDTF certification, our Zio service may no longer be reimbursed by CMS and some commercial payors, which would have a material adverse impact on our business.

In 2018, we recognized approximately nine percent of our revenue from non-contracted third-party payors, and as a result, our quarterly operating results are difficult to predict.

We have limited visibility as to when we will receive payment for our Zio service with non-contracted payors and we or XIFIN must appeal any negative payment decisions, which often delay collections further. Additionally, a portion of the revenue from non-contracted payors is received from patient co-pays, which we may not receive for several months following delivery of service or at all. For revenue related to non-contracted payors, we estimate an average collection rate based on factors including historical cash collections. Subsequent adjustments, if applicable, are recorded as an adjustment to revenue. Fluctuations in revenue may make it difficult for us, research analysts and investors to accurately forecast our revenue and operating results or to assess our actual performance. If our revenue or operating results fall below expectations, the price of our common stock would likely decline.

We rely on a third-party billing company, XIFIN, to transmit and pursue claims with payors. A delay in transmitting or pursuing claims could have an adverse effect on our revenue.

While we manage the overall processing of claims, we rely on XIFIN to transmit substantially all of our claims to payors, and pursue most claim denials. If claims for our Zio service are not submitted to payors on a timely basis, not properly adjudicated upon a denial, or if we are required to switch to a different claims processor, we may experience delays in our ability to process receipt of payments from payors, which would have an adverse effect on our revenue and our business.

The market for ambulatory cardiac monitoring solutions is highly competitive. If our competitors are able to develop or market monitoring products and services that are more effective, or gain greater acceptance in the marketplace, than any products and services we develop, our commercial opportunities will be reduced or eliminated.

The market for ambulatory cardiac monitoring products and services is evolving rapidly and becoming increasingly competitive. Our Zio service competes with a variety of products and services that provide alternatives for ambulatory cardiac monitoring, including Holter monitors and mobile cardiac telemetry monitors. Our industry is highly fragmented and characterized by a small number of large manufacturers and a large number of smaller regional service providers. These third parties compete with us in marketing to payors and prescribing physicians, recruiting and retaining qualified personnel, acquiring technology and developing products and services that compete with the Zio service. Our ability to compete effectively depends on our ability to distinguish our company and the Zio service from our competitors and their products, and includes such factors as:

- safety and efficacy
- acute and long term outcomes
- ease of use
- price
- physician, hospital and clinic acceptance
- third-party reimbursement

Large competitors in the ambulatory cardiac market include companies that sell standard Holter monitor equipment such as GE Healthcare, Philips Healthcare, Mortara Instrument, Inc., Spacelabs Healthcare, Inc. and Welch Allyn Holdings, Inc., which was acquired by Hill-Rom Holdings, Inc. Additional competitors, such as BioTelemetry, Inc., offer Holter and event, and mobile telemetry monitors, and also function as service providers. These companies have also developed other patch-based cardiac monitors that have recently received FDA and foreign regulatory clearances such as ePatch and MCOT Patch. There are also several small start-up companies trying to compete in the patch-based cardiac monitoring space. We have seen a trend in the market for large medical device companies to acquire, invest in or form alliances with these smaller companies in order to diversify their product offerings and participate in the digital health space. Future competition could come from makers of wearable fitness products or large information technology companies focused on improving healthcare. For example, Apple Inc. recently added capability to measure non-continuous ECG on its watch platform and to alert users to the potential presence of irregular heartbeats suggestive of asymptomatic AF. These competitors and potential competitors may introduce new products that compete with our Zio service. Many of our competitors and potential competitors have significantly greater financial and other resources than we do and have well-established reputations, broader product offerings, and worldwide distribution channels that are significantly larger and more effective than ours. If our competitors and potential competitors are better able to develop new ambulatory cardiac monitoring solutions than us, or develop more effective or less expensive cardiac monitoring solutions, they may render our current Zio service obsolete or non-competitive. Competitors may also be able to deploy larger or more effective sales and marketing resources than we currently have. Competition with these companies could result in price cutting, reduced profit margins and loss of market share, any of which would harm our business, financial condition and results of operations.

Our ability to compete depends on our ability to innovate successfully.

The market for medical devices, including the ambulatory cardiac monitoring segment, is competitive, dynamic, and marked by rapid and substantial technological development and product innovation. There are few barriers that would prevent new entrants or existing competitors from developing products that compete directly with ours. Demand for the Zio service and future related products or services could be diminished by equivalent or superior products and technologies offered by competitors. If we are unable to innovate successfully, our products and services could become obsolete and our revenue would decline as our customers purchase our competitors' products and services.

In order to remain competitive, we must continue to develop new product offerings and enhancements to the Zio service. We can provide no assurance that we will be successful in monetizing our electrocardiogram ("ECG") database, expanding the indications for our Zio service, developing new products or commercializing them in ways that achieve market acceptance. In addition, if we develop new products, sales of those products may reduce revenue generated from our existing products. Maintaining adequate research and development personnel and resources to meet the demands of the market is essential. If we are unable to develop new products, applications or features or improve our algorithms due to constraints, such as insufficient cash resources, high employee turnover, inability to hire personnel with sufficient technical skills or a lack of other research and development resources, we may not be able to maintain our competitive position compared to other companies. Furthermore, many of our competitors devote a considerably greater amount of funds to their research and development programs than we do, and those that do not may be acquired by larger companies that would allocate greater resources to research and development programs. Our failure or inability to devote adequate research and development resources or compete effectively with the research and development programs of our competitors could harm our business.

The continuing clinical acceptance of the Zio service depends upon maintaining strong working relationships with physicians.

The development, marketing, and sale of the Zio service depends upon our ability to maintain strong working relationships with physicians and other key opinion leaders. We rely on these professionals' knowledge and experience for the development, marketing and sale of our products. Among other things, physicians assist us in clinical trials and product development matters and provide public presentations at trade conferences regarding the Zio service. If we cannot maintain our strong working relationships with these professionals and continue to receive their advice and input, the development and marketing of the Zio service could suffer, which could harm our business, financial condition and results of operations.

The medical device industry's relationship with physicians is under increasing scrutiny by the Health and Human Services Office of the Inspector General ("OIG"), the Department of Justice ("DOJ"), state attorneys general, and other foreign and domestic government agencies. Our failure to comply with laws, rules and regulations governing our relationships with physicians, or an investigation into our compliance by the OIG, DOJ, state attorneys general or other government agencies, could significantly harm our business.

We have a significant amount of debt, which may affect our ability to operate our business and secure additional financing in the future.

As of December 31, 2018, we had $35.0 million outstanding under our credit facility consisting of our loan agreement with Silicon Valley Bank ("SVB"). We must make significant annual debt payments under the loan agreement which will divert resources from other activities. Our debt with SVB is collateralized by substantially all of our assets and contains customary financial and operating covenants limiting our ability to, among other things, dispose of assets, undergo a change in control, merge or consolidate, enter into certain transactions with affiliates, make acquisitions, incur debt, incur liens, pay dividends, repurchase stock and make investments, in each case subject to certain exceptions. The covenants in the loan agreement, as well as in any future financing agreements into which we may enter, may restrict our ability to finance our operations and engage in, expand or otherwise pursue our business activities and strategies. Our ability to comply with these covenants may be affected by events beyond our control and future breaches of any of these covenants could result in a default under the loan agreement. If not waived, future defaults could cause all of the outstanding indebtedness under the loan agreement and the promissory note to become immediately due and payable and terminate commitments to extend further credit. If we do not have or are unable to generate sufficient cash available to repay our debt obligations when they become due and payable, either upon maturity or in the event of a default, we may not be able to obtain additional debt or equity financing on favorable terms, if at all, which may negatively impact our ability to operate and continue our business as a going concern.

We depend on our senior management team and the loss of one or more key employees or an inability to attract and retain highly skilled employees could harm our business.

Our success depends largely on the continued services of key members of our executive management team and others in key management positions. For example, the services of Kevin M. King, our Chief Executive Officer, Karim Karti, our Chief Operating Officer, and Matthew C. Garrett, our Chief Financial Officer, are essential to formulating and executing on corporate strategy and to ensuring the continued operations and integrity of financial reporting within our company. In addition, the services provided by David A. Vort, our Executive Vice President of Sales, are critical to the growth that we have experienced in the sales of our Zio service. Our employees may terminate their employment with us at any time. If we lose one or more key employees, we may experience difficulties in competing effectively, developing our technologies and implementing our business strategy. We do not currently maintain key person life insurance policies on these or any of our employees.

In addition, our research and development programs and clinical operations depend on our ability to attract and retain highly skilled engineers and certified cardiographic technicians. We may not be able to attract or retain qualified engineers and certified cardiographic technicians in the future due to the competition for qualified personnel. We have from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications. Many of the companies with which we compete for experienced personnel have greater resources than us. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached legal obligations, resulting in a diversion of our time and resources and, potentially, damages. In addition, job candidates and existing employees, particularly in the San Francisco Bay Area, often consider the value of the stock awards they receive in connection with their employment. If the perceived value of our stock awards declines, it may harm our ability to recruit and retain highly skilled employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects would be harmed.

International expansion of our business exposes us to market, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States.

Our business strategy includes international expansion. Doing business internationally involves a number of risks, including:

- multiple, conflicting and changing laws and regulations such as tax laws, privacy laws, export and import restrictions, employment laws, regulatory requirements and other governmental approvals, permits and licenses
- obtaining and sustaining regulatory approvals where required for the sale of our products and services in various countries
- requirements to maintain data and the processing of that data on servers located within such countries
- complexities associated with managing multiple payor reimbursement regimes, government payors or patient self-pay systems
- logistics and regulations associated with shipping and returning our Zio monitors following use
- limits on our ability to penetrate international markets if we are required to process the Zio service locally
- financial risks, such as longer payment cycles, difficulty collecting accounts receivable, the effect of local and regional financial pressures on demand and payment for our products and services and exposure to foreign currency exchange rate fluctuations
- natural disasters, political and economic instability, including wars, terrorism, political unrest, outbreak of disease, boycotts, curtailment of trade and other market restrictions
- regulatory and compliance risks that relate to maintaining accurate information and control over activities subject to regulation under the United States Foreign Corrupt Practices Act of 1977 (“FCPA”), U.K. Bribery Act of 2010 and comparable laws and regulations in other countries
- compliance risks associated with General Data Protection Regulation (“GDPR”) enacted to protect the privacy of all individuals in the European Union and addresses export of the data outside of the European Union.

Any of these factors could significantly harm our future international expansion and operations and, consequently, our revenue and results of operations.

Our relationships with business partners in new international markets may subject us to an increased risk of litigation.

As we expand our business internationally, if we cannot successfully manage the unique challenges presented by international markets and our relationships with new business partners within those markets, our expansion activities may be adversely affected and we may become subject to an increased risk of litigation.

We may become involved in disputes relating to our products, contracts and business relationships. Such disputes include litigation against persons whom we believe have infringed on our intellectual property, infringement litigation filed against us, litigation against a competitor or litigation filed against us by distributors or service providers resulting from a breach of contract or other claim. Any of these disputes may result in substantial costs to us, judgments, settlements and diversion of our management’s attention, which could adversely affect our business, financial condition or operating results. There is also a risk of adverse judgments, as the outcome of litigation in foreign jurisdictions can be inherently uncertain.

We could be adversely affected by violations of the FCPA, and similar worldwide anti-bribery laws and the ongoing investigation, and outcome of the investigation, by government agencies of possible violations by us of the FCPA could have a material adverse effect on our business.

The FCPA and similar worldwide anti-bribery laws generally prohibit companies and their intermediaries from corruptly providing any benefits to government officials for the purpose of obtaining or retaining business. We are in the process of designing and implementing policies and procedures intended to help ensure compliance with these laws. In the future, we may operate in parts of the world that have experienced governmental corruption to some degree. We cannot assure you that our internal control policies and procedures will protect us from improper acts committed by our employees or agents. Violations of these laws, or allegations of such violations, could disrupt our business and have a material adverse effect on our business and operations.

In addition, the DOJ or other governmental agencies could impose a broad range of civil and criminal sanctions under the FCPA and other laws and regulations including, but not limited to, injunctive relief, disgorgement, fines, penalties, modifications to business practices including the termination or modification of existing business relationships, the imposition of compliance programs and the retention of a monitor to oversee compliance with the FCPA. The imposition of any of these sanctions or remedial measures could have a material adverse effect on our business and results of operations.

Our proprietary data analytics engine may not operate properly, which could damage our reputation, give rise to claims against us or divert application of our resources from other purposes, any of which could harm our business and operating results.

The ECG data that is gathered through our Zio monitors is curated by algorithms that are part of our Zio service and a Zio report is delivered to the prescribing physician for diagnosis. The continuous development, maintenance and operation of our deep-learned backend data analytics engine is expensive and complex, and may involve unforeseen difficulties including material performance problems, undetected defects or errors, for example, with new capabilities incorporating artificial intelligence. We may encounter technical obstacles, and it is possible that we may discover additional problems that prevent our proprietary algorithms from operating properly. If our data analytics platform does not function reliably or fails to meet physician or payor expectations in terms of performance, physicians may stop prescribing the Zio service and payors could attempt to cancel their contracts with us.

Any unforeseen difficulties we encounter in our existing or new software, cloud-based applications and analytics services, and any failure by us to identify and address them could result in loss of revenue or market share, diversion of development resources, injury to our reputation and increased service and maintenance costs. Correction of defects or errors could prove to be impossible or impracticable. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating results.

Provision of the Zio service is dependent upon third-party vendors who are subject to disruptions, which could directly or indirectly harm our business and operating results.

The analysis we perform to create the diagnostic report for the Zio service is dependent upon a recording made by each device, which requires the physical return of the Zio monitor to one of our clinical centers. We predominantly rely on the U.S. Postal Service ("USPS") to perform this delivery service. Delivery of the Zio monitor to one of our clinical centers may be subject to disruption by natural disasters such as earthquake or flooding, labor disagreements or errors on behalf of USPS staff, or other disruption to the USPS delivery infrastructure. Further, for the Zio AT monitor, we rely on the provision of cellular communication services for the timely transmission of patient information and reportable events. Once received, all data from both Zio XT and AT monitors is processed, curated and reported on through cloud-computing resources. The reliability of these communication and cloud services is also subject to natural disasters, labor disruptions, human error, and infrastructure failure.

Any of these disruptions may render it difficult or temporarily impossible for us to provide some or all of the Zio service, adversely affecting our operating results, causing significant distraction for management, and negatively impacting our business reputation.

Security breaches, loss of data and other disruptions could compromise sensitive information related to our business or patients, or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation.

In the ordinary course of our business, we and our third-party billing and collections provider, XIFIN, collect, process, and store sensitive data, including legally-protected personally identifiable health information about patients in the United States. This personally identifiable information may include, among other information, names, addresses, phone numbers, email addresses, payment account information, age, gender, and heart rate data. We also process and store, and use additional third parties to process and store, sensitive intellectual property and other proprietary business information, including that of our customers, payors and collaborative partners. Our patient information is encrypted but not de-identified. We manage and maintain our applications and data utilizing a combination of on-site systems, managed data center systems and cloud-based computing center systems. These applications and data encompass a wide variety of business critical information, including research and development information, commercial information and business and financial information.

We are highly dependent on information technology networks and systems, including the internet and services hosted by Amazon Web Services and other third party service providers, to securely process, transmit and store this critical information. Security breaches of this infrastructure, including physical or electronic break-ins, computer viruses, attacks by hackers and similar breaches, can create system disruptions, shutdowns, or unauthorized disclosure or modifications of confidential information involving patient health information to become publicly available. The secure processing, storage, maintenance and transmission of this critical information are vital to our operations and business strategy, and we devote significant resources to protecting such information, including executing Business Associates Agreements with applicable vendors. Although we take measures to protect sensitive information from unauthorized access or disclosure, cyber-attacks are becoming more sophisticated and frequent, and our information technology and infrastructure, and that of XIFIN and other third parties we utilize to process or store data, may be vulnerable to viruses and worms, phishing attacks, denial-of-service attacks, physical or electronic break-ins, attacks by hackers, breaches due to employee error, malfeasance, or misuse, or similar disruptions from unauthorized tampering. While we have implemented data privacy and security measures that we believe are compliant with applicable privacy laws and regulations, some confidential and protected health information, is transmitted to us by third parties, who may not implement adequate security and privacy measures. Further, if third party service providers that process or store data on our behalf experience security breaches or violate applicable laws, agreements, or our policies, such events may also put our information at risk and could in turn have an adverse effect on our business.

A security breach or privacy violation that leads to disclosure or modification of, or prevents access to, patient information, including protected health information, could harm our reputation, compel us to comply with disparate state breach notification laws, require us to verify the correctness of database contents and otherwise subject us to liability under laws that protect personal data, resulting in increased costs or loss of revenue. If we are unable to prevent such security breaches or privacy violations or implement satisfactory remedial measures in a timely manner, the market perception of the effectiveness of our security measures could be harmed, our operations could be disrupted, our brand could be adversely affected, demand for our products and services may decrease, we may be unable to provide the Zio service, we may lose sales and customers, and we may suffer loss of reputation, financial loss and other regulatory penalties because of lost or misappropriated information, including sensitive patient data. We may be required to expend significant capital and financial resources to invest in security measures, protect against such threats or to alleviate problems caused by breaches in security. In addition, these breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm. Although we have invested in our systems and the protection of our data to reduce the risk of an intrusion or interruption, and we monitor our systems on an ongoing basis for any current or potential threats, we can give no assurances that these measures and efforts will prevent all intrusions, interruptions, or breakdowns.

Because techniques used to obtain unauthorized access or to sabotage systems change frequently and generally are not recognized until launched, we may be unable to anticipate these techniques or to implement adequate preventive measures.

In the event that patients or physicians authorize or enable third parties to access their data on our systems, we cannot ensure the complete integrity or security of such data in our systems as we would not control that access. Third parties may also attempt to fraudulently induce our employees, or patients or physicians who use our technology, into disclosing sensitive information such as user names, passwords or other information. Third parties may also otherwise compromise our security measures in order to gain unauthorized access to the information we store. This could result in significant legal and financial exposure, a loss in confidence in the security of our service, interruptions or malfunctions in our service, and, ultimately, harm to our future business prospects and revenue.

Any such breach or interruption of our systems, or those of XIFIN or any of our third party information technology partners, could compromise our networks or data security processes and sensitive information could be inaccessible or could be accessed by unauthorized parties, publicly disclosed, lost or stolen. Any such interruption in access, improper access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of patient information, such as the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), the General Data Protection Regulation, and the European Union Data Protection Directive, and regulatory penalties. Regardless of the merits of any such claim or proceeding, defending it could be costly and divert management's attention from leading our business. Unauthorized access, loss or dissemination could also disrupt our operations, including our ability to perform our services, bill payors or patients, process claims and appeals, provide customer assistance services, conduct research and development activities, collect, process and prepare company financial information, provide information about our current and future solutions and engage in other patient and clinician education and outreach efforts. Any such breach could also result in the compromise of our trade secrets and other proprietary information, which could adversely affect our business and competitive position.

Depending on the nature of the information compromised, in the event of a data breach or other unauthorized access to or acquisition of our user data, we may also have obligations to notify users about the incident and we may need to provide some form of remedy for the individuals affected by the incident. A growing number of legislative and regulatory bodies have adopted consumer notification requirements in the event of unauthorized access to or acquisition of certain types of personal data. Such breach notification laws continue to evolve and may be inconsistent from one jurisdiction to another. Complying with these obligations could cause us to incur substantial costs and could increase negative publicity surrounding any incident that compromises user data. In addition, the

interpretation and application of consumer, health-related and data protection laws, rules and regulations in the United States, Europe and elsewhere are often uncertain, contradictory and in flux. It is possible that these laws, rules and regulations may be interpreted and applied in a manner that is inconsistent with our practices or those of our distributors and partners. If we or these third parties are found to have violated such laws, rules or regulations, it could result in government-imposed fines, orders requiring that we or these third parties change our or their practices, or criminal charges, which could adversely affect our business. Complying with these various laws could cause us to incur substantial costs or require us to change our business practices, systems and compliance procedures in a manner adverse to our business.

The use, misuse or off-label use of the Zio service may result in injuries that lead to product liability suits, which could be costly to our business.

The use, misuse or off-label use of the Zio service may in the future result in outcomes and complications potentially leading to product liability claims. For example, we are aware that physicians have prescribed the Zio service off-label for pediatric patients. We have also received and may in the future receive product liability or other claims with respect to the Zio service, including claims related to skin irritation and alleged burns. In addition, if the Zio monitor is defectively designed, manufactured or labeled, contains defective components or is misused, we may become subject to costly litigation initiated by physicians, or the hospitals and clinics where physicians prescribing our Zio service work, or their patients. Product liability claims are especially prevalent in the medical device industry and could harm our reputation, divert management's attention from our core business, be expensive to defend and may result in sizable damage awards against us.

Although we maintain product liability insurance, we may not have sufficient insurance coverage for future product liability claims. We may not be able to obtain insurance in amounts or scope sufficient to provide us with adequate coverage against all potential liabilities. Any product liability claims brought against us, with or without merit, could increase our product liability insurance rates or prevent us from securing continuing coverage, harm our reputation, significantly increase our expenses, and reduce product sales. Product liability claims in excess of our insurance coverage would be paid out of cash reserves, harming our financial condition and operating results.

Our forecasts of market growth may prove to be inaccurate, and even if the markets in which we compete achieve the forecasted growth, our business may not increase at similar rates, if at all.

Growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. Our forecasts relating to, among other things, the expected growth in the ambulatory cardiac monitoring solutions market may prove to be inaccurate.

Our growth is subject to many factors, including whether the market for first-line ambulatory cardiac monitoring solutions continues to improve, the rate of market acceptance of the Zio service as compared to the products of our competitors and our success in implementing our business strategies, each of which is subject to many risks and uncertainties. If our Zio service works as anticipated to provide a correct first-line diagnosis, it may lead to a decrease in the amount of ambulatory cardiac monitoring prescriptions each year in the United States. This outcome would result if our Zio service is proven to produce the right diagnosis the first time, thereby reducing the need for additional testing. Accordingly, our forecasts of market opportunity should not be taken as indicative of our future growth.

We may acquire other companies or technologies, which could divert our management's attention, result in additional dilution to our stockholders and otherwise disrupt our operations and harm our operating results.

We may in the future seek to acquire or invest in businesses, applications or technologies that we believe could complement or expand our ambulatory cardiac monitoring solutions portfolio, enhance our technical capabilities or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various costs and expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. We may not be able to identify desirable acquisition targets or be successful in entering into an agreement with any particular target or obtain the expected benefits of any acquisition or investment.

To date, the growth of our operations has been largely organic, and we have limited experience in acquiring other businesses or technologies. We may not be able to successfully integrate acquired personnel, operations and technologies, or effectively manage the combined business following an acquisition. Acquisitions could also result in dilutive issuances of equity securities, the use of our available cash, or the incurrence of debt, which could harm our operating results. In addition, if an acquired business fails to meet our expectations, our operating results, business and financial condition may suffer.

Consolidation of commercial payors could result in payors eliminating coverage or reducing reimbursement rates for our Zio service.

When payors combine their operations, the combined company may elect to reimburse our Zio service at the lowest rate paid by any of the participants in the consolidation or use its increased size to negotiate reduced rates. If one of the payors participating in the consolidation does not reimburse for the Zio service at all, the combined company may elect not to reimburse for the Zio service, which would adversely impact our operating results. While attempts by Aetna Inc. to acquire Humana Inc. and Anthem Inc. to acquire Cigna Corp. have been largely abandoned due to antitrust challenges by the DOJ, it is possible that these or other payor consolidations may occur in the future.

Our ability to utilize our net operating loss carryovers may be limited.

As of December 31, 2018, we had federal and state net operating loss carryforwards ("NOLs") of $206.7 million and $107.4 million, respectively, which if not utilized will begin to expire in 2027 for federal purposes and 2019 for state purposes. We may use these NOLs to offset against taxable income for U.S. federal and state income tax purposes. However, Section 382 of the Internal Revenue Code, as amended, may limit the NOLs we may use in any year for U.S. federal income tax purposes in the event of certain changes in ownership of our company. A Section 382 "ownership change" generally occurs if one or more stockholders or groups of stockholders who own at least 5% of a company's stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three year period. Similar rules may apply under state tax laws. Future issuances or sales of our stock, including certain transactions involving our stock that are outside of our control, could cause an "ownership change." If an "ownership change" has occurred in the past or occurs in the future, Section 382 would impose an annual limit on the amount of pre-ownership change NOLs and other tax attributes we can use to reduce our taxable income, potentially increasing and accelerating our liability for income taxes, and also potentially causing those tax attributes to expire unused. As of December 31, 2018, a section 382 study has not been performed. Any limitation on using NOLs could, depending on the extent of such limitation and the NOLs previously used, result in our retaining less cash after payment of U.S. federal and state income taxes during any year in which we have taxable income, rather than losses, than we would be entitled to retain if such NOLs were available as an offset against such income for U.S. federal and state income tax reporting purposes, which could adversely impact our operating results.

If we are unable to implement and maintain effective internal control over financial reporting in the future, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock may decrease.

The Sarbanes-Oxley Act requires, among other things, that we assess the effectiveness of our internal controls over financial reporting annually and the effectiveness of our disclosure controls and procedures quarterly. Section 404 of the Sarbanes-Oxley Act ("Section 404"), requires us to perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on, and our independent registered public accounting firm to attest to, the effectiveness of our internal control over financial reporting. Prior to December 31, 2017, we availed ourselves of the exemption from the requirement that our independent registered public accounting firm attest to the effectiveness of our internal control over financial reporting under Section 404. As of December 31, 2017, we ceased to be an "emerging growth company." We expect that the cost of our compliance with Section 404 will correspondingly increase as a result of our independent registered public accounting firm being required to undertake an assessment of our internal control over financial reporting. Our compliance with applicable provisions of Section 404 have required and will continue to require that we incur substantial accounting expense and expend significant management time on compliance-related issues as we implement additional corporate governance practices and comply with reporting requirements. Section 404 also requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on our internal control over financial reporting along with an auditor attestation. If we have material weaknesses in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. We have implemented the process and documentation necessary to perform the evaluation needed to comply with Section 404, but we may not be able to complete our evaluation, testing and any required remediation in a timely fashion in any given quarterly period.

During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting, our management will be unable to conclude that our internal control over financial reporting is effective and our independent registered public accounting firm will be unable to issue an attestation report on the effectiveness of our internal control over financial reporting. Even if our management concludes that our internal control over financial reporting is effective, our independent registered public accounting firm may conclude that there are material weaknesses with respect to our internal controls or the level at which our internal controls are documented, designed, implemented or reviewed.

If we identify material weaknesses in our internal control over financial reporting, if we are unable to comply with the requirements of Section 404 in a timely manner, if we are unable to conclude that our internal control over financial reporting is effective, or if our auditors were to express an adverse opinion on the effectiveness of our internal control over financial reporting because we had one or more material weaknesses, investors could lose confidence in the accuracy and completeness of our financial disclosures, which could cause the price of our common stock to decline. Internal control deficiencies could also result in a restatement of our financial results in the future. We could also become subject to stockholder or other third-party litigation as well as investigations by the stock exchange on which our securities are listed, the Securities and Exchange Commission, or other regulatory authorities, which could require additional financial and management resources and could result in fines, trading suspensions or other remedies.

Risks Related to Our Intellectual Property

We may become a party to intellectual property litigation or administrative proceedings that could be costly and could interfere with our ability to provide the Zio service.

The medical device industry has been characterized by extensive litigation regarding patents, trademarks, trade secrets, and other intellectual property rights, and companies in the industry have used intellectual property litigation to gain a competitive advantage. It is possible that U.S. and foreign patents and pending patent applications or trademarks controlled by third parties, especially those held by our competitors, may be alleged to cover our products or services, or that we may be accused of misappropriating third parties' trade secrets. Additionally, our products include hardware and software components that we purchase from vendors, and may include design components that are outside of our direct control. Our competitors, many of which have substantially greater resources and have made substantial investments in patent portfolios, trade secrets, trademarks, and competing technologies, may have applied for or obtained, or may in the future apply for or obtain, patents or trademarks that will prevent, limit or otherwise interfere with our ability to make, use, sell and/or export our products and services or to use product names. Moreover, in recent years, individuals and groups that are non-practicing entities, commonly referred to as "patent trolls," have purchased patents and other intellectual property assets for the purpose of making claims of infringement in order to extract settlements. From time to time, we may receive threatening letters, notices or "invitations to license," or may be the subject of claims that our products and business operations infringe or violate the intellectual property rights of others. The defense of these matters can be time consuming, costly to defend in litigation, divert management's attention and resources, damage our reputation and brand and cause us to incur significant expenses or make substantial payments to satisfy judgments or settle claims. Vendors from whom we purchase hardware or software may not indemnify us in the event that such hardware or software is accused of infringing a third-party's patent or trademark or of misappropriating a third-party's trade secret.

Further, if such patents, trademarks, or trade secrets are successfully asserted against us, this may harm our business and result in injunctions preventing us from selling our products, license fees, damages and the payment of attorney fees and court costs. In addition, if we are found to willfully infringe third-party patents or trademarks or to have misappropriated trade secrets, we could be required to pay treble damages in addition to other penalties. Although patent, trademark, trade secret, and other intellectual property disputes in the medical device and services area have often been settled through licensing or similar arrangements, costs associated with such arrangements may be substantial and could include ongoing royalties. We may be unable to obtain necessary licenses on satisfactory terms, if at all. If we do not obtain necessary licenses, we may not be able to redesign our Zio monitors or our Zio service to avoid infringement and our product development efforts may be negatively affected as a result.

Similarly, interference or derivation proceedings provoked by third parties or brought by the U.S. Patent and Trademark Office ("USPTO") may be necessary to determine priority with respect to our patents, patent applications, trademarks or trademark applications. We may also become involved in other proceedings, such as reexamination, inter partes review, derivation or opposition proceedings before the USPTO or other jurisdictional body relating to our intellectual property rights or the intellectual property rights of others. Adverse determinations in a judicial or administrative proceeding or failure to obtain necessary licenses could prevent us from manufacturing the Zio monitors and selling the Zio service or using product names, which would have a significant adverse impact on our business.

Additionally, we may need to commence proceedings against others to enforce our patents or trademarks, to protect our trade secrets or know how, or to determine the enforceability, scope and validity of the proprietary rights of others. These proceedings would result in substantial expense to us and significant diversion of effort by our technical and management personnel. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. We may not be able to stop a competitor from marketing and selling products that are the same or similar to our products and services or from using product or service names that are the same or similar to ours, and our business may be harmed as a result.

We use certain open source software in the Zio service. We may face claims from companies that incorporate open source software into their products or from open source licensors, claiming ownership of, or demanding release of, the source code, the open source software or derivative works that were developed using such software, or otherwise seeking to enforce the terms of the applicable open source license. These claims could result in litigation and could require us to cease offering the Zio service unless and until we can re-engineer it to avoid infringement. This re-engineering process could require significant additional research and development resources, and we may not be able to complete it successfully. These risks could be difficult to eliminate or manage, and, if not addressed, could harm our business, financial condition and operating results.

Intellectual property rights may not provide adequate protection, which may permit third parties to compete against us more effectively.

In order to remain competitive, we must develop and maintain protection of the proprietary aspects of our technologies. We rely on a combination of patents, copyrights, trademarks, trade secret laws and confidentiality and invention assignment agreements with employees and third parties to protect our intellectual property rights. As of December 31, 2018, we owned, or retained exclusive license to, eleven issued U.S. patents, the earliest of which will expire in 2028. As of December 31, 2018, we also owned, or retained an exclusive license to, four issued patents from the Japanese Patent Office, two issued patents from each of the Australian, Canadian and European Patent Offices, and one issued patent from the Korean Patent Office. The earliest expiration date of these international patents is 2027. As of December 31, 2018, we had twenty-two pending patent applications globally, including six in the United States, five in the European Patent Office, four in Japan, two in each of Korea and Canada, and one in each of Australia, China and India. Our patents and patent applications include claims covering key aspects of the design, manufacture and use of the Zio monitor and the Zio service.

We rely, in part, on our ability to obtain and maintain patent protection for our proprietary products and processes. The process of applying for and obtaining a patent is expensive, time consuming and complex, and we may not be able to file, prosecute, maintain, enforce or license all necessary or desirable patent applications at a reasonable cost, in a timely manner, or in all jurisdictions where protection may be commercially advantageous, or we may not be able to protect our proprietary rights at all. Despite our efforts to protect our proprietary rights, unauthorized parties may be able to obtain and use information that we regard as proprietary. In addition, the issuance of a patent does not ensure that it is valid or enforceable, so even if we obtain patents, they may not be valid or enforceable against third parties. Our patent applications may not result in issued patents and our patents may not be sufficiently broad to protect our technology. Issued international patents may carry a requirement to "work" a patent in the applicable geography; failure to do so could lead to loss of the patent or the requirement to accept licensing terms, both of which would be favorable to competition. Furthermore, the issuance of a patent does not give us the right to practice the patented invention. Third parties may have blocking patents that could prevent us from marketing our own products and practicing our own technology. Alternatively, third parties may seek approval to market their own products similar to or otherwise competitive with our products. In these circumstances, we may need to defend and/or assert our patents, including by filing lawsuits alleging patent infringement. In any of these types of proceedings, a court or agency with jurisdiction may find our patents invalid or unenforceable; competitors may then be able to market products and use manufacturing and analytical processes that are substantially similar to ours. Even if we have valid and enforceable patents, these patents still may not provide protection against competing products or processes sufficient to achieve our business objectives.

If we are unable to protect the confidentiality of our trade secrets and other proprietary information, our business and competitive position may be harmed.

We rely heavily on trade secrets as well as invention assignment and confidentiality provisions that we have in contracts with our employees, consultants, collaborators and others to protect our algorithms and other aspects of our Zio service. We may not be able to prevent the unauthorized disclosure or use of our technical knowledge or other trade secrets by consultants, vendors or former or current employees, despite the existence generally of these confidentiality agreements and other contractual restrictions. These agreements may not provide meaningful protection for our trade secrets, know-how, or other proprietary information in the event of any unauthorized use, misappropriation, or disclosure of such trade secrets, know-how, or other proprietary information. There can be no assurance that employees, consultants, vendors and clients have executed such agreements or have not breached or will not breach their agreements with us, that we will have adequate remedies for any breach, or that our trade secrets will not otherwise become known or independently developed by competitors. Despite the protections we do place on our intellectual property, monitoring unauthorized use and disclosure of our intellectual property is difficult, and we do not know whether the steps we have taken to protect our intellectual property will be adequate. In addition, the laws of many foreign countries will not protect our intellectual property rights to the same extent as the laws of the United States. Consequently, we may be unable to prevent our proprietary technology from being exploited abroad, which could affect our ability to expand to international markets or require costly efforts to protect our technology.

We may also employ individuals who were previously or are concurrently employed at research institutions or other medical device companies, including our competitors or potential competitors. We may be subject to claims that these employees, or we, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former or concurrent employers, or that patents and applications we have filed to protect inventions of these employees, even those related to one or more of our products, are rightfully owned by their former or concurrent employer. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

To the extent our intellectual property protection is incomplete, we are exposed to a greater risk of direct competition. A third party could, without authorization, copy or otherwise obtain and use our products or technology, or develop similar technology. Our competitors could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts or design around our protected technology. Our failure to secure, protect and enforce our intellectual property rights could substantially harm the value of our Zio service, brand and business. The theft or unauthorized use or publication of our trade secrets and other confidential business information could reduce the differentiation of our products and harm our business, the value of our investment in development or business acquisitions could be reduced and third parties might make claims against us related to losses of their confidential or proprietary information. Any of the foregoing could materially and adversely affect our business.

Further, it is possible that others will independently develop the same or similar technology or otherwise obtain access to our unpatented technology, and in such cases we could not assert any trade secret rights against such parties. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our trade secret rights and related confidentiality and nondisclosure provisions. If we fail to obtain or maintain trade secret protection, or if our competitors obtain our trade secrets or independently develop technology similar to ours or competing technologies, our competitive market position could be materially and adversely affected. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets and agreement terms that address non-competition are difficult to enforce in many jurisdictions and might not be enforceable in certain cases.

If our trademarks and tradenames are not adequately protected, then we may not be able to build name recognition in our markets and our business may be adversely affected.

We rely on trademarks, service marks, tradenames and brand names, such as our registered trademark "ZIO," to distinguish our products from the products of our competitors, and have registered or applied to register these trademarks. We cannot assure you that our trademark applications will be approved. During trademark registration proceedings, we may receive rejections. Although we are given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in proceedings before the USPTO and in proceedings before 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. In the event that our trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition and could require us to devote resources towards advertising and marketing new brands. Further, we cannot assure you that competitors will not infringe our trademarks or that we will have adequate resources to enforce our trademarks. Additionally, we do not own any registered trademarks for the mark "IRHYTHM" and we are aware of at least one third party that has registered the "IRHYTHM" mark in the United States, the European Union and Taiwan in connection with computer software for controlling and managing patient medical information, heart rate monitors, and heart rate monitors to be worn during moderate exercise, among other uses. We and the third party are involved in adversary proceedings before the Trademark Offices in the United States and the European Union, and those proceedings could impact our ability to register the "IRHYTHM" mark in those jurisdictions. It is possible that the third party could bring suit against us claiming infringement of the "IRHYTHM" mark, and if it did so and if there were a court determination against us, we might then be obligated to pay monetary damages, enter into a license agreement, or cease use of the "IRHYTHM" name and mark, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Changes in patent law could diminish the value of patents in general, thereby impairing our ability to protect our existing and future products.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. In 2011, the Leahy-Smith America Invents Act ("Leahy-Smith Act") was signed into law. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications are prosecuted and also may affect patent litigation. These also include provisions that switched the United States from a "first-to-invent" system to a "first-to-file" system, allow third-party submission of prior art to the USPTO during patent prosecution and set forth additional procedures to attack the validity of a patent by the USPTO administered post grant proceedings. Under a first-to-file system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether another inventor had made the invention earlier. Under the new post grant provisions of the Leahy-Smith Act, the USPTO introduced procedures that provide additional administrative pathways for third parties to challenge issued patents. Inter partes review ("IPR") is one of these procedures. The number of IPR challenges filed is increasing, and in many cases, the USPTO is canceling or significantly narrowing issued patent claims. Accordingly, even if a patent is granted by the USPTO, there is risk that it may not withstand an IPR challenge. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. The Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, patent reform legislation may pass in the future that could lead to additional uncertainties and increased costs surrounding the prosecution, enforcement and defense of our patents and applications. Furthermore, the U.S. Supreme Court and the U.S. Court of Appeals for the Federal Circuit have made, and will likely continue to make, changes in how the patent laws of the United States are interpreted. Recent case law has increased uncertainty regarding the availability of patent protection for certain technologies and the costs associated with obtaining patent protection for those technologies. For example, the U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In particular, the 2014 decision by the U.S. Supreme Court in *Alice Corp. v. CLS Bank International* has increased the difficulty of obtaining new software patents and enforcing existing software patents. Similarly, foreign courts have made, and will likely continue to make, changes in how the patent laws in their respective jurisdictions are interpreted. We cannot predict future changes in the interpretation of patent laws or changes to patent laws that might be enacted into law by U.S. and foreign legislative bodies. Those changes may materially affect our patents or patent applications and our ability to obtain additional patent protection in the future.

Risks Related to Government Regulation

Changes in the regulatory environment may constrain or require us to restructure our operations, which may harm our revenue and operating results.

Healthcare laws and regulations change frequently and may change significantly in the future. We may not be able to adapt our operations to address every new regulation, and new regulations may adversely affect our business. We cannot assure you that a review of our business by courts or regulatory authorities would not result in a determination that adversely affects our revenue and operating results, or that the healthcare regulatory environment will not change in a way that restricts our operations. In addition, there is risk that the U.S. Congress may implement changes in laws and regulations governing healthcare service providers, including measures to control costs, or reductions in reimbursement levels, which may adversely affect our business and results of operations.

Government payors, such as CMS, as well as insurers, have increased their efforts to control the cost, utilization and delivery of healthcare services. From time to time, the U.S. Congress has considered and implemented changes in the CMS fee schedules in conjunction with budgetary legislation. Further reductions of reimbursement by CMS for services or changes in policy regarding coverage of tests or other requirements for payment, such as prior authorization or a physician or qualified practitioner's signature on test requisitions, may be implemented from time to time. Reductions in the reimbursement rates and changes in payment policies of other third-party payors may occur as well. Similar changes in the past have resulted in reduced payments as well as added costs and have added more complex regulatory and administrative requirements. Further changes in federal, state, local and third-party payor regulations or policies may have a material adverse impact on our business. Actions by agencies regulating insurance or changes in other laws, regulations, or policies may also have a material adverse effect on our business.

If we fail to comply with healthcare and other governmental regulations, we could face substantial penalties and our business, results of operations and financial condition could be adversely affected.

The products and services we offer are highly regulated, and there can be no assurance that the regulatory environment in which we operate will not change significantly and adversely in the future. Our arrangements with physicians, hospitals and clinics may expose us to broadly applicable fraud and abuse and other laws and regulations that may restrict the financial arrangements and relationships through which we market, sell and distribute our products and services. Our employees, consultants, and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements. Federal and state healthcare laws and regulations that may affect our ability to conduct business, include, without limitation:

- federal and state laws and regulations regarding billing and claims payment applicable to our Zio service and regulatory agencies enforcing those laws and regulations
- the federal Anti-Kickback Statute, which prohibits, among other things, any person from knowingly and willfully offering, soliciting, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs, such as the CMS programs

- the federal False Claims Act, which prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, false claims, or knowingly using false statements, to obtain payment from the federal government
- federal criminal laws that prohibit executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters
- the FCPA, the U.K. Bribery Act of 2010, and other local anti-corruption laws that apply to our international activities
- the federal Physician Payment Sunshine Act, or Open Payments, created under the Affordable Care Act, and its implementing regulations, which requires manufacturers of drugs, medical devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program to report annually to the U.S. Department of Health and Human Services, information related to payments or other transfers of value made to licensed physicians and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, and its implementing regulations, which impose certain requirements relating to the privacy, security and transmission of individually identifiable health information; HIPAA also created criminal liability for knowingly and willfully falsifying or concealing a material fact or making a materially false statement in connection with the delivery of or payment for healthcare benefits, items or services
- the GDPR, which replaces the 1995 Data Protection Directive known as Directive 95/46/EC
- the federal physician self-referral prohibition, commonly known as the Stark Law
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts

The Affordable Care Act, was enacted in 2010. The Affordable Care Act, among other things, amends the intent requirement of the federal Anti-Kickback Statute and criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the Affordable Care Act provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions, it is possible that some of our activities could be subject to challenge under one or more of such laws. Any action brought against us for violations of these laws or regulations, even successfully defended, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. We may be subject to private "qui tam" actions brought by individual whistleblowers on behalf of the federal or state governments, with potential liability under the federal False Claims Act including mandatory treble damages and significant per-claim penalties, which were increased to $10,957 to $21,916 per false claim in 2017.

Although we have adopted policies and procedures designed to comply with these laws and regulations and conduct internal reviews of our compliance with these laws, our compliance is also subject to governmental review. The growth of our business and sales organization and our expansion outside of the United States may increase the potential of violating these laws or our internal policies and procedures. The risk of our being found in violation of these or other laws and regulations is further increased by the fact that many have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to a variety of interpretations. Any action brought against us for violation of these or other laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. If our operations are found to be in violation of any of the federal, state and foreign laws described above or any other current or future fraud and abuse or other healthcare laws and regulations that apply to us, we may be subject to penalties, including significant criminal, civil, and administrative penalties, damages, fines, imprisonment, for individuals, exclusion from participation in government programs, such as Medicare and Medicaid, and we could be required to curtail or cease our operations. Any of the foregoing consequences could seriously harm our business and our financial results.

If we fail to obtain and maintain necessary regulatory clearances or approvals for the Zio monitors and Zio service, or if clearances or approvals for future products and indications are delayed or not issued, our commercial operations would be harmed.

The Zio monitors and Zio service are subject to extensive regulation by the FDA in the United States and by our Notified Body in the European Union. Government regulations specific to medical devices are wide ranging and govern, among other things:

- product design, development and manufacture
- laboratory, preclinical and clinical testing, labeling, packaging, storage and distribution
- premarketing clearance or approval
- record keeping
- product marketing, promotion and advertising, sales and distribution
- post-marketing surveillance, including reporting of deaths or serious injuries and recalls and correction and removals

Before a new medical device or service, or a new intended use for an existing product or service, can be marketed in the United States, a company must first submit and receive either 510(k) clearance or premarketing approval from the FDA, unless an exemption applies. Either process can be expensive, lengthy and unpredictable. We may not be able to obtain the necessary clearances or approvals or may be unduly delayed in doing so, which could harm our business. 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. Although we have obtained 510(k) clearance to market the Zio monitors and the Zio service, our clearance can be revoked if safety or efficacy problems develop.

In addition, we are required to file various reports with the FDA, and European regulators, including reports required by the medical device reporting regulations ("MDRs") that require that we report to the regulatory authorities if our Zio service may have caused or contributed to a death or serious injury or malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction were to recur. If these reports are not filed in a timely manner, regulators may impose sanctions and we may be subject to product liability or regulatory enforcement actions, all of which could harm our business.

If we initiate a correction or removal for our Zio service to reduce a risk to health posed by the Zio service, we would be required to submit a publicly available Correction and Removal report to the FDA and, in many cases, similar reports to other regulatory agencies. This report could be classified by the FDA as a device recall which could lead to increased scrutiny by the FDA, other international regulatory agencies and our customers regarding the quality and safety of our Zio service. Furthermore, the submission of these reports could be used by competitors against us and cause physicians to delay or cancel prescriptions, which could harm our reputation.

The FDA and the Federal Trade Commission ("FTC") also regulate the advertising and promotion of our products and services to ensure that the claims we make are consistent with our regulatory clearances, that there is adequate and reasonable data to substantiate the claims and that our promotional labeling and advertising is neither false nor misleading. If the FDA or FTC determines that any of our advertising or promotional claims are misleading, not substantiated or not permissible, we may be subject to enforcement actions, including warning letters, and we may be required to revise our promotional claims and make other corrections or restitutions.

The FDA and state and international authorities have broad enforcement powers. Our failure to comply with applicable regulatory requirements could result in enforcement action any such agency, which may include any of the following sanctions:

- adverse publicity, warning letters, fines, injunctions, consent decrees and civil penalties
- repair, replacement, refunds, recall or seizure of our products
- operating restrictions, partial suspension or total shutdown of production
- denial of our requests for regulatory clearance or premarket approval of new products or services, new intended uses or modifications to existing products or services
- withdrawal of regulatory clearance or premarket approvals that have already been granted
- criminal prosecution

If any of these events were to occur, our business and financial condition could be harmed.

Material modifications to the Zio monitors, labelling of the Zio monitors, or Zio service may require new 510(k) clearances, CE Marks or other premarket approvals or may require us to recall or cease marketing our products and services until clearances are obtained.

Material modifications to the intended use or technological characteristics of the Zio monitors or Zio service will require new 510(k) clearances, premarket approvals or CE Mark grants, or require us to recall or cease marketing the modified devices until these clearances or approvals are obtained. Based on FDA published guidelines, the FDA requires device manufacturers to initially make and document a determination of whether or not a modification requires a new approval, supplement or clearance; however, the FDA can review a manufacturer's decision. Any modification to an FDA cleared device or service that would significantly affect its safety or efficacy or that would constitute a major change in its intended use would require a new 510(k) clearance or possibly a premarket approval. We may not be able to obtain additional 510(k) clearances or premarket approvals for new products or for modifications to, or additional indications for, the Zio monitors or Zio service in a timely fashion, or at all. Delays in obtaining required future clearances would harm our ability to introduce new or enhanced products in a timely manner, which in turn would harm our future growth. We have made modifications to the Zio monitors and Zio service in the past that we believe do not require additional clearances or approvals, and we may make additional modifications in the future. If the FDA or an EU Notified Body disagrees and requires new clearances or approvals for any of these modifications, we may be required to recall and to stop selling or marketing the Zio monitors and Zio service as modified, which could harm our operating results and require us to redesign our products or services. In these circumstances, we may be subject to significant enforcement actions.

If we or our suppliers fail to comply with the FDA's QSR or the European Union's Medical Device Directive, our manufacturing or distribution operations could be delayed or shut down and our revenue could suffer.

Our manufacturing and design processes and those of our third-party suppliers are required to comply with the FDA's Quality System Regulation ("QSR") and the EU's Medical Device Directive ("MDD"), both of which cover procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of Zio monitors. We are also subject to similar state requirements and licenses, and to ongoing ISO compliance in all operations, including design, manufacturing, and service, to maintain our CE Mark. In addition, we must engage in extensive recordkeeping and reporting and must make available our facilities and records for periodic unannounced inspections by governmental agencies, including the FDA, state authorities, EU Notified Bodies and comparable agencies in other countries. If we fail a regulatory inspection, our operations could be disrupted and our manufacturing interrupted. Failure to take adequate corrective action in response to an adverse regulatory inspection could result in, among other things, a shutdown of our manufacturing or product distribution operations, significant fines, suspension of marketing clearances and approvals, seizures or recalls of our device, operating restrictions and criminal prosecutions, any of which would cause our business to suffer. Furthermore, our key component suppliers may not currently be or may not continue to be in compliance with applicable regulatory requirements, which may result in manufacturing delays for our product and cause our revenue to decline.

We are registered with the FDA as a medical device specifications developer and manufacturer. The FDA has broad post-market and regulatory enforcement powers. We are subject to unannounced inspections by the FDA and the Food and Drug Branch of the California Department of Public Health ("CDPH") to determine our compliance with the QSR and other regulations at both our design and manufacturing facilities, and these inspections may include the manufacturing facilities of our suppliers. Our design facilities in San Francisco, California were most recently audited by the FDA in June 2016 and no formal observations resulted. The most recent FDA audit of our manufacturing facility occurred in August 2017 and no formal observations resulted. No additional follow up with the FDA was required and we believe that we are in compliance, in all material respects, with the QSR.

We are also registered with the EU as a medical device developer, manufacturer and service operator through the National Standard Authority of Ireland ("NSAI"), our European Notified Body. Most recently, the NSAI conducted an ISO 13485 surveillance audit of our design, manufacturing and service operations in June 2018 and we believe that we are in compliance, in all material respects, with the MDD.

We can provide no assurance that we will continue to remain in compliance with the QSR or MDD. If the FDA, CDPH or NSAI inspect any of our facilities and discover compliance problems, we may have to cease manufacturing and product distribution until we can take the appropriate remedial steps to correct the audit findings. Taking corrective action may be expensive, time consuming and a distraction for management and if we experience a delay at our manufacturing facility we may be unable to produce Zio monitors, which would harm our business.

Zio monitors may in the future be subject to product recalls that could harm our reputation.

The FDA and similar governmental authorities in other countries have the authority to require the recall of commercialized products in the event of material regulatory deficiencies or defects in design or manufacture. A government mandated or voluntary recall by us could occur as a result of component failures, manufacturing errors or design or labeling defects. Recalls of Zio monitors would divert managerial attention, be expensive, harm our reputation with customers and harm our financial condition and results of operations. A recall announcement would also negatively affect our stock price.

Healthcare reform measures could hinder or prevent the Zio service's commercial success.

In the United States, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system in ways that could harm our future revenues and profitability and the demand for the Zio service. Federal and state lawmakers regularly propose and, at times, enact legislation that would result in significant changes to the healthcare system, some of which are intended to contain or reduce the costs of medical products and services. The Affordable Care Act contains a number of provisions, including those governing enrollment in federal healthcare programs, reimbursement changes and fraud and abuse measures, all of which will impact existing government healthcare programs and will result in the development of new programs. The Affordable Care Act, among other things, imposed an excise tax of 2.3% on the sale of most medical devices, including ours, and any failure to pay this amount could result in the imposition of an injunction on the sale of our products, fines and penalties. Although this tax has been suspended through 2019, it is expected to apply to sales of our products in 2020 and thereafter. The current presidential administration and Congress may continue to attempt broad sweeping changes to the current health care laws. We face uncertainties that might result from modifications or repeal of any of the provisions of the Affordable Care Act, including as a result of current and future executive orders and legislative actions. The impact of those changes on us and potential effect on the medical device industry as a whole is currently unknown. Any changes to the Affordable Care Act are likely to have an impact on our results of operations, and may have a material adverse effect on our results of operations. We cannot predict what other health care programs and regulations will ultimately be implemented at the federal or state level or the effect of any future legislation or regulation in the United States may have on our business.

The continuing efforts of the government, insurance companies, managed care organizations and other payors of healthcare services to contain or reduce costs of healthcare may harm:

- our ability to set a price that we believe is fair for our Zio service
- our ability to generate revenue and achieve or maintain profitability
- the availability of capital

Compliance with environmental laws and regulations could be expensive, and failure to comply with these laws and regulations could subject us to significant liability.

Our research and development and manufacturing operations may involve the use of hazardous substances and are subject to a variety of federal, state, local and foreign environmental laws and regulations relating to the storage, use, discharge, disposal, remediation of, and human exposure to, hazardous substances and the sale, labeling, collection, recycling, treatment and disposal of products containing hazardous substances. Liability under environmental laws and regulations can be joint and several and without regard to fault or negligence. Compliance with environmental laws and regulations may be expensive and noncompliance could result in substantial liabilities, fines and penalties, personal injury and third-party property damage claims and substantial investigation and remediation costs. Environmental laws and regulations could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations. We cannot assure you that violations of these laws and regulations will not occur in the future or have not occurred in the past as a result of human error, accidents, equipment failure or other causes. The expense associated with environmental regulation and remediation could harm our financial condition and operating results.

We have identified material weaknesses in our internal control over financial reporting which could, if not remediated, result in material misstatements in our financial statements

We are responsible for establishing and maintaining adequate internal control over our financial reporting, as defined in Rule 13a-15(f) under the Securities Exchange Act. As disclosed below in Item 9A, we identified material weaknesses in our internal control over financial reporting. A material weakness is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. As a result of these material weaknesses, we concluded that our internal control over financial reporting was not effective based on criteria set forth by the Committee of Sponsoring Organization of the Treadway Commission in Internal Control—An Integrated Framework (2013).

To implement remedial measures as disclosed in Item 9A, we may need to commit additional resources, hire additional staff, and provide additional management oversight. If our remedial measures are insufficient to address the material weaknesses, or if additional material weaknesses or significant deficiencies in our internal control over financial reporting are discovered or occur in the future, our consolidated financial statements may contain material misstatements, and we could be required to restate our financial results. In addition, if we are unable to successfully remediate these material weaknesses and if we are unable to produce accurate and timely financial statements, our stock price may be adversely affected.

Risks Related to Our Common Stock

Future sales and issuances of securities could negatively affect our stock price and dilute the ownership interest of our existing investors.

Our expected future capital requirements may depend on many factors, including expanding our customer base, the expansion of our salesforce, and the timing and extent of spending on the development of our technology to increase our product offerings. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Additionally, new investors could gain rights, preferences and privileges senior to those of existing holders of our common stock. Any future debt financing into which we enter may impose upon us additional covenants that restrict our operations, including limitations on our ability to incur liens or additional debt, pay dividends, repurchase our common stock, make certain investments and engage in certain merger, consolidation or asset sale transactions. Any debt financing or additional equity that we raise may contain terms that are not favorable to us or our stockholders.

Sales or issuances of a substantial amount of securities, or the perception that such sales could occur, may cause a decline in the price of our common stock. Future resales of our common stock by our existing stockholders could cause the market price of our common stock to decline. In addition, the shares of common stock subject to outstanding options and restricted stock units under our 2016 Equity Incentive Plan and our 2016 Employee Stock Purchase Plan and the shares reserved for future issuance under both Plans may become eligible for sale in the public markets in the future, subject to certain legal and control limitations.

We may sell shares or other securities in any offering at a price per share that is less than the price per share paid by existing investors, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by existing investors.

The market price of our common stock may fluctuate substantially, and you could lose all or part of your investment.

The market price of our common stock may fluctuate substantially in response to, among other things, the risk factors described in this Annual Report on Form 10-K and other factors, many of which are beyond our control, including:

- changes in analysts' estimates, investors' perceptions, recommendations by securities analysts or our failure to achieve analysts' estimates
- quarterly variations in our or our competitors' results of operations
- periodic fluctuations in our revenue, due in part to the way in which we recognize revenue
- the financial projections we may provide to the public, any changes in these projections or our failure to meet these projections
- general market conditions and other factors unrelated to our operating performance or the operating performance of our competitors
- changes in reimbursement by current or potential payors
- changes in operating performance and stock market valuations of other technology companies generally, or those in the medical device industry in particular
- actual or anticipated changes in regulatory oversight of our products
- the results of our clinical trials
- the loss of key personnel, including changes in our board of directors and management
- legislation or regulation of our market
- lawsuits threatened or filed against us
- the announcement of new products or product enhancements by us or our competitors

- announced or completed acquisitions of businesses or technologies by us or our competitors
- announcements related to patents issued to us or our competitors and to litigation
- developments in our industry

In addition, the market prices of the stock of many new issuers in the medical device industry and of other companies with smaller market capitalizations like us have been volatile and from time to time have experienced significant share price and trading volume changes unrelated or disproportionate to the operating performance of those companies. Fluctuations in our stock price, volume of shares traded, and changes in our market valuations may make our stock less attractive to certain investors. In the past, stockholders have filed securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business, and adversely affect our business, results of operations, financial condition, reputation and cash flows. These factors may materially and adversely affect the market price of our common stock.

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our share price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business, our market and our competitors. We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our shares or change their opinion of our business, our share price would likely decline. If one or more of these analysts cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our share price or trading volume to decline.

The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain executive management and qualified board members.

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act, the Dodd Frank Act, the listing requirements of The NASDAQ Stock Market and other applicable securities laws, rules and regulations. Compliance with these laws, rules and regulations will increase our legal and financial compliance costs, make some activities more difficult, time consuming or costly and increase demand on our systems and resources. The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and operating results. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. In order to maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this standard, significant resources and management oversight may be required. As a result, our management and other personnel divert attention from operational and other business matters to devote substantial time to these public company requirements. In particular, we will incur significant expenses and devote substantial management effort toward ensuring compliance with the requirements of Section 404, which has increased now that we will no longer be an emerging growth company under the JOBS Act. We continue to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. We cannot predict or estimate the amount of additional costs we will incur in order to remain compliant with our public company reporting requirements or the timing of such costs. Additional compensation costs and any future equity awards will increase our compensation expense, which will increase our general and administrative expense and could adversely affect our profitability.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

We will incur additional compensation costs in the event that we decide to pay our executive officers cash compensation closer to that of executive officers of other public medical device companies, which would increase our general and administrative expense and could harm our profitability. Any future equity awards will also increase our compensation expense. We also expect that being a public company and compliance with applicable rules and regulations will make it more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These

factors could also make it more difficult for us to attract and retain qualified executive officers and members of our board of directors, particularly to serve on our audit committee and compensation committee.

As a result of disclosure of information in this filing and in other filings required of a public company, our business and financial condition is more visible, which could be advantageous to our competitors and other third parties and could result in threatened or actual litigation. If such claims are successful, our business and operating results could be harmed, and even if the claims are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the resources of our management and harm our business and operating results.

Anti-takeover provisions in our amended and restated certificate of incorporation and bylaws, and Delaware law, could discourage a change in control of our company or a change in our management.

Our amended and restated certificate of incorporation and bylaws contain provisions that might enable our management to resist a takeover. These provisions include:

- a classified board of directors
- advance notice requirements applicable to stockholders for matters to be brought before a meeting of stockholders and requirements as to the form and content of a stockholders' notice
- a supermajority stockholder vote requirement for amending certain provisions of our amended and restated certificate of incorporation and bylaws
- the right to issue preferred stock without stockholder approval, which could be used to dilute the stock ownership of a potential hostile acquirer
- allowing stockholders to remove directors only for cause
- a requirement that the authorized number of directors may be changed only by resolution of the board of directors
- allowing all vacancies, including newly created directorships, to be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum, except as otherwise required by law
- a requirement that our stockholders may only take action at annual or special meetings of our stockholders and not by written consent
- limiting the forum to Delaware for certain litigation against us
- limiting the persons that can call special meetings of our stockholders to our board of directors, the chairperson of our board of directors, the chief executive officer or the president (in the absence of a chief executive officer)

These provisions might discourage, delay or prevent a change in control of our company or a change in our management. The existence of these provisions could adversely affect the voting power of holders of common stock and limit the price that investors might be willing to pay in the future for shares of our common stock. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' abilities to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that, unless we consent to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of fiduciary duty owed by any of our directors, officers or other employees to us or to our stockholders, (iii) any action asserting a claim arising pursuant to the Delaware General Corporation Law or our amended and restated certificate of incorporation or bylaws, (iv) any action to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or bylaws or (v) 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 or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. 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 harm our business, financial condition and operating results.

We have not paid dividends in the past and do not expect to pay dividends in the future, and, as a result, any return on investment may be limited to the value of our stock.

We have never paid cash dividends and do not anticipate paying cash dividends in the foreseeable future. The payment of dividends will depend on our earnings, capital requirements, financial condition, prospects and other factors our board of directors may deem relevant. In addition, our loan agreements limit our ability to, among other things, pay dividends or make other distributions or payments on account of our common stock, in each case subject to certain exceptions. If we do not pay dividends, our stock may be less valuable because a return on your investment will only occur if you sell our common stock after our stock price appreciates.

Item 1B. Unresolved Staff Comments.

Not applicable.

Item 2. Properties.

We currently lease 60,873 square feet for our corporate headquarters located in San Francisco, California. On October 4, 2018, we entered into an office lease ("San Francisco Lease") to rent approximately 117,560 rentable square feet in San Francisco, California. The San Francisco Lease is expected to commence around April 1, 2019 and become the Company's new headquarters in August 2019. The San Francisco Lease has a twelve-year term, which will expire on August 31, 2031.

We lease 41,500 square feet for our clinical center in Lincolnshire, Illinois under a lease agreement that expires in October 2019. We also lease 20,276 square feet in Houston, Texas for another clinical center under a lease agreement that expires in October 2027.

We lease 14,616 square feet for our manufacturing and distribution facilities in Cypress, California under an agreement that expires in September 2020.

We believe that these facilities are sufficient to meet our current and anticipated future needs.

Item 3. Legal Proceedings.

We are not currently a party to any material litigation or other material legal proceedings. From time to time we may be involved in legal proceedings or investigations, which could have an adverse impact on our reputation, business and financial condition and divert the attention of our management from the operation of our business.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

Market Information

The market in which our common stock is traded is the NASDAQ Global Select Market under the symbol "IRTC". The following table sets forth the high and low sales price per share of our common stock for each full quarterly period within the two most recent fiscal years as reported on The NASDAQ Global Select Market:

	2018		2017	
	High	Low	High	Low
First Quarter	$ 66.94	$ 57.58	$ 39.84	$ 29.41
Second Quarter	$ 84.41	$ 57.89	$ 42.92	$ 32.74
Third Quarter	$ 96.89	$ 73.27	$ 51.88	$ 40.56
Fourth Quarter	$ 92.40	$ 60.15	$ 57.68	$ 48.21

Holders of Common Stock

As of February 22, 2019, there were 25 holders of record of our common stock. Certain shares are held in "street" name and, accordingly, the number of beneficial owners of such shares is not known or included in the foregoing number.

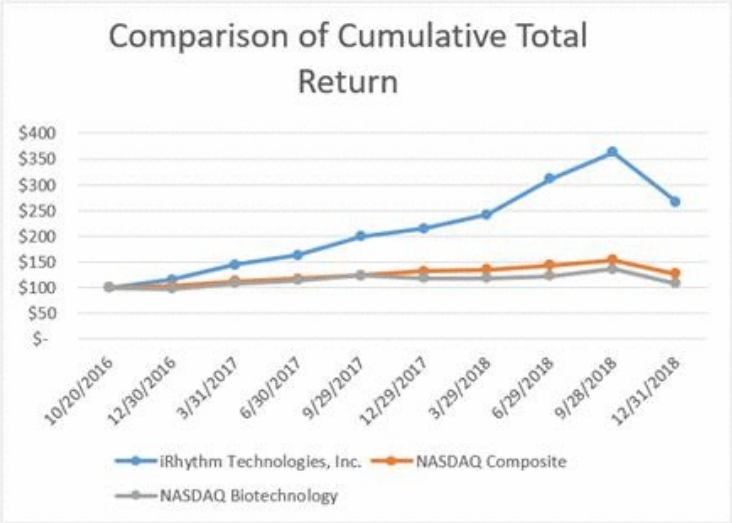
Dividend Policy

We have never declared or paid cash dividends on our capital stock. We intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors.

Performance Graph

This graph is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference into any filing of iRhythm Technologies, Inc. under the Securities Act or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

The following graph shows the total stockholder return of an investment of $100 in cash at market close on October 20, 2016 (the first day of trading of our common stock), through December 31, 2018 for (i) our common stock, (ii) the NASDAQ Composite Index (U.S.) and (iii) the NASDAQ Biotechnology Index. Pursuant to applicable Securities and Exchange Commission rules, all values assume reinvestment of the full amount of all dividends, however no dividends have been declared on our common stock to date. The stockholder return shown on the graph below is not necessarily indicative of future performance, and we do not make or endorse any predictions as to future stockholder returns.



	10/20/2016	12/31/2016	3/31/2017	6/30/2017	9/30/2017	12/31/2017	3/31/2018	6/30/2018	9/30/2018	12/31/2018
iRhythm Technologies, Inc.	$ 100	$ 115	$ 144	$ 163	$ 199	$ 215	$ 242	$ 311	$ 363	$ 267
NASDAQ Composite	$ 100	$ 103	$ 113	$ 117	$ 124	$ 132	$ 135	$ 143	$ 154	$ 127
NASDAQ Biotechnology	$ 100	$ 98	$ 109	$ 115	$ 124	$ 119	$ 119	$ 122	$ 136	$ 108

Issuer Purchases of Equity Securities

None

Item 6. Selected Consolidated Financial Data.

The information set forth below should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes included elsewhere in this Annual Report on Form 10-K. The selected consolidated financial data in this section are not intended to replace our financial statements and are qualified in their entirety by the financial statements and related notes included elsewhere in this Annual Report on Form 10-K. The statement of operations data for the years ended December 31, 2018, 2017 and 2016, and the balance sheet data at December 31, 2018 and 2017 are derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. The statement of operations data for the years ended December 31, 2015 and 2014 and the balance sheet data at December 2016, 2015 and 2014 are derived from our audited consolidated financial statements, which are not included herein. The financial data included in this report are historical and are not necessarily indicative of results to be expected in any future period.

	Year Ended December 31, (in thousands, except share and per share data)				
	2018	2017	2016	2015	2014
Consolidated Statements of Operations Data:					
Revenue	$ 147,293	$ 98,509	$ 64,072	$ 36,140	$ 21,749
Cost of revenue(1)	38,579	27,708	20,883	14,700	10,591
Gross profit	108,714	70,801	43,189	21,440	11,158
Operating expenses:					
Research and development(1)	20,750	13,335	7,150	6,349	5,698
Selling, general and administrative(1)	131,582	84,737	51,621	36,722	20,225
Total operating expenses(1)	152,332	98,072	58,771	43,071	25,923
Loss from operations	(43,618)	(27,271)	(15,582)	(21,631)	(14,765)
Interest expense	(3,115)	(3,386)	(3,248)	(1,059)	(774)
Other income (expense), net	1,526	1,237	(2,073)	(109)	(293)
Loss on extinguishment of debt	(3,029)	—	—	—	—
Loss before income taxes	(48,236)	(29,420)	(20,903)	(22,799)	(15,832)
Income tax provision	44	—	—	—	—
Net loss	$ (48,280)	$ (29,420)	$ (20,903)	$ (22,799)	$ (15,832)
Net loss per common share, basic and diluted	$ (2.02)	$ (1.30)	$ (3.95)	$ (16.57)	$ (12.05)
Weighted-average shares, basic and diluted	23,885,858	22,627,327	5,285,847	1,376,106	1,314,294

(1) Includes employee stock-based compensation as follows:

	Year Ended December 31,				
	2018	2017	2016	2015	2014
Cost of revenue	$ 193	$ 163	$ 17	$ 17	$ 15
Research and development	3,057	1,733	203	165	80
Selling, general and administrative	13,079	8,227	1,651	1,228	733
Total stock-based compensation	$ 16,329	$ 10,123	$ 1,871	$ 1,410	$ 828

	As of December 31,				
	2018	2017	2016	2015	2014
Consolidated Balance Sheets Data:					
Cash and cash equivalents	$ 20,023	$ 8,671	$ 51,643	$ 25,208	$ 8,618
Working capital	76,246	98,663	105,393	24,054	10,672
Total assets	119,710	133,123	138,156	37,872	18,509
Notes payable	34,899	33,978	32,227	30,552	6,255
Convertible preferred stock	—	—	—	97,096	85,014
Accumulated deficit	(203,515)	(156,589)	(127,169)	(106,266)	(83,467)
Total stockholders' equity (deficit)	$ 54,422	$ 79,553	$ 92,562	$ (101,624)	$ (80,544)

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

You should read the following discussion and analysis of our financial condition and results of operations together with the financial statements and related notes included elsewhere in Item 8 of Part II of this Annual Report on Form 10-K. This discussion and other parts of this Annual Report on Form 10-K contain forward-looking statements that involve risks and uncertainties, such as statements of our plans, objectives, expectations and intentions. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section of this Annual Report on Form 10-K entitled "Risk Factors."

Overview

We are a digital healthcare company redefining the way cardiac arrhythmias are clinically diagnosed by combining our wearable biosensing technology with cloud-based data analytics and deep-learning capabilities. Our goal is to be the leading provider of ambulatory electrocardiogram ("ECG") monitoring for patients at risk for arrhythmias. We have created a full portfolio of ambulatory cardiac monitoring services on a unique platform, called the Zio service, which combines an easy-to-wear and unobtrusive biosensor that can be worn for up to 14 consecutive days with powerful proprietary algorithms that distill data from millions of heartbeats into clinically actionable information. The Zio service consists of:

- wearable patch-based biosensors, Zio XT and Zio AT monitors, which continuously record and store ECG data from every patient heartbeat for up to 14 consecutive days. Zio AT offers the option of timely transmission of data during the prescribed wear period
- cloud-based analysis of the recorded cardiac rhythms using our proprietary, deep-learned algorithms
- a final quality assessment review of the data by our certified cardiographic technicians
- an easy-to-read Zio report, a curated summary of findings that includes high quality and clinically-actionable information which is sent directly to a patient's physician and can be integrated into a patient's electronic health record

We receive revenue for the Zio service primarily from third-party payors, which include commercial payors and government agencies, such as CMS and the military. In addition, a small percentage of institutions, which are typically hospitals or private physician practices, purchase the Zio service from us directly. Third-party payors accounted for approximately 88%, 82% and 74% of our revenue for the years ended December 31, 2018, 2017 and 2016, respectively. Our revenue in the third-party commercial payor category is primarily contracted, which means we have entered into pricing contracts with these payors. Approximately 37%, 37% and 40% of our total revenue for the years ended December 31, 2018, 2017 and 2016, respectively, is received from federal government agencies under established reimbursement codes. Institutions, which are typically hospitals or private physician practices accounted for approximately 12%, 18% and 26% of our revenue for the years ended December 31, 2018, 2017, and 2016 respectively. We rely on a third-party billing partner, XIFIN, Inc., to submit patient claims and collect from commercial payors, certain government agencies, and patients.

Since our Zio service was cleared by the U.S. Food and Drug Administration ("FDA"), we have provided the Zio service to over one million patients and have collected approximately 400 million hours of curated heartbeat data. We believe the Zio service is well-positioned to disrupt an already-established $1.8 billion U.S. ambulatory cardiac monitoring market by offering a user-friendly device to patients, actionable information to physicians and value to payors.

We market our ambulatory cardiac monitoring solution in the United States through a direct sales organization comprised of sales management, field billing specialists, and quota-carrying sales representatives. Our sales representatives focus on initial introduction into new customers, penetration across a sales region, driving adoption within existing accounts and conveying our message of clinical and economic value to service line managers and hospital administrators and other clinical departments. We continue to increase the size of our U.S. sales organization to expand the current customer account base and increase utilization of our Zio service. In addition, we will continue exploring sales and marketing expansion opportunities in international geographies.

Components of Results of Operations

Revenue

Substantially all of our revenue is derived from sales of our Zio service in the United States. We earn revenue from the provision of our Zio service primarily from third-party payors, which include commercial payors and government agencies, such as CMS and the military. In addition, a small percentage of institutions, which are typically hospitals or private physician practices, purchase the Zio service from us directly.

We recognize revenue on an accrual basis based on estimates of the amount that will ultimately be realized, which is the difference between the amount submitted for payment and the amount received. These estimates require significant judgment by management. In determining the amount to accrue for a delivered report, the Company considers factors such as claim payment history from both payors and patient out-of-pocket costs, payor coverage, whether there is a contract between the payor or healthcare institution and the Company, historical amount received for the service, and any current developments or changes that could impact reimbursement and healthcare institution payments.

We expect our revenue to increase as we expand our sales and marketing infrastructure, increase awareness of our product offerings, increase the number of covered and contracted lives for our Zio service, expand the range of indications for our Zio service and develop new products and services. We are subject to seasonality similar to other companies in our field, as vacations by physicians and patients tend to affect enrollment in the Zio service more during the summer months and during the end of calendar year holidays compared to other times of the year

Cost of Revenue and Gross Margin

Cost of revenue is expensed as incurred and includes direct labor, material costs, equipment and infrastructure expenses, amortization of internal-use software, allocated overhead, and shipping and handling. Direct labor includes payroll and personnel-related costs involved in manufacturing, data analysis, and customer service. Material costs include both the disposable materials costs of the Zio monitors and amortization of the re-usable printed circuit board assemblies ("PCBAs"). Each Zio monitor includes a PCBA, the cost of which is amortized over the anticipated number of uses of the board. We expect cost of revenue to increase in absolute dollars to the extent our revenue grows.

We calculate gross margin as gross profit divided by revenue. Our gross margin has been and will continue to be affected by a variety of factors, including increased contracting with third-party payors and institutional providers. Historically, we have increased our average selling price by entering into contracts with third-party commercial payors at rates that were higher than amounts typically collected from payors without contracts or from institutional customers. We have in the past been able to increase our pricing as third-party payors become more familiar with the benefits of the Zio service and move to contracted pricing arrangements. We believe we will be able to continue to achieve pricing increases as more payors contract with us due to the benefits the Zio service provides compared to other available products. We expect to continue to decrease the cost of service per device by obtaining volume purchase discounts for our material costs and implementing scan-time algorithm improvements and software-driven and other workflow enhancements to reduce labor costs. We expect further decreases in the cost of service as we spread the fixed portion of our overhead costs over a larger number of units produced, which will result in a decrease in our per unit manufacturing costs.

Research and Development Expenses

We expense research and development costs as they are incurred. Research and development expenses include payroll and personnel-related costs, including stock-based compensation, consulting services, clinical studies, laboratory supplies and allocated facility overhead costs. We expect our research and development costs to increase in absolute dollars as we hire additional personnel to develop new product and service offerings and product enhancements.

Selling, General and Administrative Expenses

Our sales and marketing expenses consist of payroll and personnel-related costs, including stock-based compensation, sales commissions, travel expenses, consulting, public relations costs, direct marketing, tradeshow and promotional expenses and allocated facility overhead costs. We expect our sales and marketing expenses to increase in absolute dollars as we hire additional sales personnel and increase our sales support infrastructure in order to further penetrate the U.S. market and expand into international markets.

Our general and administrative expenses consist primarily of payroll and personnel-related costs for executive, finance, legal and administrative personnel, including stock-based compensation. Other significant expenses include professional fees for legal and accounting services, consulting fees, recruiting fees, bad debt expense, third-party patient claims processing fees and travel expenses.

Interest Expense

Interest expense consists of cash and non-cash components. The cash component of interest expense is attributable to borrowings under our loan agreements. Refer to *Note 7. Debt*, for further information on our loan agreements. The non-cash component consists of interest expense recognized from the amortization of debt discounts derived from the issuance of warrants and debt issuance costs capitalized on our balance sheets and, for 2017, "paid-in-kind" interest when debt payments were interest only and a portion of interest payments were added back to the debt balance.

Other Income (Expense), Net

Other income, net consists primarily of interest income which consists of interest received on our cash, cash equivalents and investments balances and, for 2016, the change in fair value of our convertible preferred stock warrant liabilities.

Results of Operations

Comparison of the Years Ended December 31 2018, and 2017

	Years Ended December 31,			
	2018	2017	$ Change	% Change
	(dollars in thousands)			
Revenue	$ 147,293	$ 98,509	$ 48,784	50%
Cost of revenue	38,579	27,708	10,871	39%
Gross profit	108,714	70,801	37,913	54%
Gross margin	74%	72%		
Operating expenses:				
Research and development	20,750	13,335	7,415	56%
Selling, general and administrative	131,582	84,737	46,845	55%
Total operating expenses	152,332	98,072	54,260	55%
Loss from operations	(43,618)	(27,271)	(16,347)	60%
Interest expense	(3,115)	(3,386)	271	(8)%
Other income, net	1,526	1,237	289	23%
Loss on extinguishment of debt	(3,029)	—	(3,029)	n/a
Loss before income taxes	(48,236)	(29,420)	(18,816)	64%
Income tax provision	44	—	44	n/a
Net loss	$ (48,280)	$ (29,420)	$ (18,860)	64%

Revenue

Revenue increased $48.8 million, or 50%, to $147.3 million during the year ended December 31, 2018 from $98.5 million during the year ended December 31, 2017. The increase in revenue was attributable to the increase in volume of the Zio services performed as a result of the expansion of coverage and the increase in the number of payors under contract, increasing physician acceptance and expansion of our sales force as we continue to gain market acceptance for our Zio service.

Cost of Revenue and Gross Margin

Cost of revenue increased $10.9 million, or 39%, to $38.6 million during the year ended December 31, 2018 from $27.7 million during the year ended December 31, 2017. The increase in cost of revenue was primarily due to increased Zio service volume in 2018. This increase was partially offset by the reduction in costs to provide the Zio service, which was achieved through manufacturing efficiencies in the production of our device and reductions in cardiographic technician labor costs through algorithm improvements and software driven workflow enhancements.

Gross margin for the year ended December 31, 2018 increased to 74%, compared to 72% for the year ended December 31, 2017. The increase was driven primarily by the reduction in the cost of the Zio service due to our continued efforts to lower manufacturing costs, fixed costs absorption and reduced labor costs per device through our algorithm improvements and software-driven and other workflow enhancements.

Research and Development Expenses

Research and development expenses increased $7.4 million, or 56%, to $20.8 million during the year ended December 31, 2018 from $13.3 million during the year ended December 31, 2017. The increase was primarily attributable to a $4.7 million increase in payroll and personnel-related expenses as a result of increased headcount, and $1.5 million for allocated facility-related expenses.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased $46.8 million, or 55%, to $131.6 million during the year ended December 31, 2018 from $84.7 million during the year ended December 31, 2018. The increase was primarily attributable to a $33.6 million increase in payroll and personnel-related expenses as a result of increased headcount to support the growth in our operations, which included an increase of $12.0 million in commissions and bonus primarily as a result of increased revenues. The increase was also driven by an increase in professional services of $3.5 million and bad debt expense of $2.2 million.

A significant amount of selling, general, and administrative incremental spend can be directly attributed to our continued focus on salesforce expansion and its support infrastructure to support our growth strategy.

Interest Expense

Interest expense decreased $0.3 million to $3.1 million during the year ended December 31, 2018 from $3.4 million during the year ended December 31, 2017 due to the decrease in interest rate as a result of the extinguishment of the loan agreement with Biopharma Secured Investments III Holdings Cayman LP in October 2018 as well as repayment of the loan agreement with California HealthCare Foundation in May 2018.

Other Income (Expense), Net

Other income, increased to $1.5 million for the year ended December 30, 2018, compared to $1.2 million for year ended December 31, 2017. The increase in other income (expense) is due to interest income on our investment portfolio.

Comparison of the Year Ended December 31 2017, and 2016

	Year Ended December 31,			
	2017	2016	$ Change	% Change
	(dollars in thousands)			
Revenue	$ 98,509	$ 64,072	$ 34,437	54%
Cost of revenue	27,708	20,883	6,825	33
Gross profit	70,801	43,189	27,612	64
Gross margin	72%	67%		
Operating expenses:				
Research and development	13,335	7,150	6,185	87
Selling, general and administrative	84,737	51,621	33,116	64
Total operating expenses	98,072	58,771	39,301	67
Loss from operations	(27,271)	(15,582)	(11,689)	(75)
Interest expense	(3,386)	(3,248)	(138)	4
Other income (expense), net	1,237	(2,073)	3,310	(160)
Net loss	$ (29,420)	$ (20,903)	$ (8,517)	41%

Revenue

Revenue increased $34.4 million, or 54%, to $98.5 million during the year ended December 31, 2017 from $64.1 million during the year ended December 31, 2016. The increase in revenue was primarily attributable to the increase in volume of the Zio service performed as a result of the expansion of coverage and the increase in the number of payors under contract, increasing physician acceptance and expansion of our sales force as we continue to gain market acceptance for our Zio service.

Cost of Revenue and Gross Margin

Cost of revenue increased $6.8 million, or 33%, to $27.7 million during the year ended December 31, 2017 from $20.9 million during the year ended December 31, 2016. The increase in cost of revenue was primarily due to increased Zio service volume in 2017. This increase was partially offset by the reduction in costs to provide the Zio service, which was achieved through manufacturing efficiencies in the production of our device and reductions in cardiographic technician labor costs through algorithm improvements and software driven workflow enhancements.

Gross margin for the year ended December 31, 2017 increased to 72%, compared to 67% for the year ended December 31, 2016. The increase was driven primarily by the reduction in the cost of the Zio service due to our continued efforts to lower manufacturing costs, fixed costs absorption and reduced labor costs per device through our algorithm improvements and software-driven workflow enhancements. In addition, we experienced some mix shift driven by the success of our contracting efforts, which also improved our gross margin during the year ended December 31, 2017.

Research and Development Expenses

Research and development expenses increased $6.2 million, or 87%, to $13.3 million during the year ended December 31, 2017 from $7.2 million during the year ended December 31, 2016. The increase was primarily attributable to a $4.4 million increase for payroll and personnel-related expenses as a result of increased headcount to support the growth in our operations, and a $1.4 million increase in facility-related expenses.

Selling, General and Administrative Expenses

Selling, general and administrative expenses increased $33.1 million, or 64%, to $84.7 million during the year ended December 31, 2017 from $51.6 million during the year ended December 31, 2016. The increase was primarily attributable to a $18.7 million increase in payroll and personnel-related expenses as a result of increased headcount to support the growth in our operations, a $6.0 million increase in professional services expenses, primarily as a result of an increase in accounting, legal and recruiting services expenses, a $1.8 million increase in facility-related expenses, and a $1.7 million increase in bad debt expense primarily due to the overall increase in accounts receivable.

Interest Expense

Interest expense increased $0.2 million to $3.4 million during the year ended December 31, 2017 from $3.2 million during the year ended December 31, 2017 due to increased principal balance of our December 2015 debt financing as a result of paid-in-kind interest.

Other Income (Expense), Net

Other income (expense), net increased $3.3 million to income of $1.2 million during the year ended December 31, 2017 from expense of $2.1 million during the year ended December 31, 2016. The change was primarily related to an increase of $1.2 million of interest income from our investments and $2.1 million decrease from the fair value re-measurement of preferred stock warrant liabilities at each balance sheet date, which concluded upon the conversion to common warrants upon our IPO in October 2016.

Liquidity and Capital Expenditures

Overview

As of December 31, 2018, we had cash and cash equivalents of $20.0 million, short-term investments of $58.3 million, and an accumulated deficit of $203.5 million.

Our expected future capital requirements may depend on many factors including expanding our customer base, the expansion of our salesforce, and the timing and extent of spending on the development of our technology to increase our product offerings. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Any future debt financing into which we enter may impose upon us additional covenants that restrict our operations, including limitations on our ability to incur liens or additional debt, pay dividends, repurchase our common stock, make certain investments and engage in certain merger, consolidation or asset sale transactions. Any debt financing or additional equity that we raise may contain terms that are not favorable to us or our stockholders.

Cash Flows

The following table summarizes our cash flows for the periods indicated (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Net cash (used in) provided by:			
Operating activities	$ (29,068)	$ (14,911)	$ (16,651)
Investing activities	34,117	(34,684)	(68,166)
Financing activities	6,303	6,532	111,252
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ 11,352	$ (43,063)	$ 26,435

Cash Used in Operating Activities

During the year ended December 31, 2018, cash used in operating activities was $29.1 million which consisted of a net loss of $48.3 million, adjusted by non-cash charges of $33.0 million and a net change of $13.9 million in our net operating assets and liabilities. The non-cash charges are primarily comprised of an increase in stock-based compensation expense of $16.3 million, as well as a change in allowance for doubtful accounts and contractual allowance of $15.2 million. The change in our net operating assets and liabilities was primarily due to an increase of $22.9 million in the change in accounts receivable as a result of the increase in our revenue, and an increase of $10.8 million in accrued liabilities, primarily related to increased accrued payroll and related compensation accruals.

During the year ended December 31, 2017 cash used in operating activities was $14.9 million, which consisted of a net loss of $29.4 million, adjusted by non-cash charges of $22.6 million and a net change of $8.1 million in our net operating assets and liabilities. The non-cash charges are primarily comprised of an increase in stock-based compensation expense of $10.1 million, as well as a change in allowance for doubtful accounts and contractual allowance of $9.4 million. The change in our net operating assets and liabilities was primarily due to an increase of $13.0 million in the change in accounts receivable as a result of the increase in our revenue, and a decrease of $5.4 million in accrued liabilities, primarily related to increased accrued payroll and related compensation accruals.

During the year ended December 31, 2016, cash used in operating activities was $16.7 million, which consisted of a net loss of $20.9 million, adjusted by non-cash charges of $11.0 million and a net change of $6.7 million in our net operating assets and liabilities. The non-cash charges are primarily comprised of an increase in allowance for doubtful accounts and contractual allowance of $4.7 million, a change in value of warrant liability of $2.1 million, stock based compensation of $1.9 million, depreciation and amortization of $0.6 million and $0.3 million related to amortization of debt discounts. The change in our net operating assets and liabilities was primarily due to an increase of $6.5 million in accounts receivable as a result of the increase in our revenue, an increase of $1.2 million in other assets primarily related to the purchase of the Zio XT monitor PCBAs to support the growth in volume of Zio service performed and an increase of $0.9 million in prepaid expenses and other current assets. This change was partially offset by a $4.9 million increase in accrued liabilities primarily related to increased accrued payroll and related compensation accruals and a $0.4 million increase in deferred revenue.

Cash Used in Investing Activities

Cash provided by investing activities during the year ended December 31, 2018 was $34.1 million, which consisted primarily of $126.5 million in cash received from the maturities of available for sale investments and $6.0 million in cash received from sales of available for sale investments, partially offset by purchases of available for sale investments of $93.2 million, and $5.2 million of capital expenditures to purchase property and equipment.

Cash used in investing activities during the year ended December 31, 2017 was $34.7 million, which consisted of $129.8 million in purchases of investments and $3.6 million of capital expenditures to purchase property and equipment, partially offset by maturities of available for sale investments of $98.7 million.

Cash used in investing activities during the year ended December 31, 2016 was $68.2 million, which consisted of $65.4 million in purchases of investments and $2.8 million of capital expenditures to purchase property and equipment.

Cash Used in Financing Activities

During the year ended December 31, 2018, cash provided by financing activities was $6.3 million, primarily due to proceeds from the issuance of debt of $35.0 million and $9.3 million in proceeds from the issuance of common stock, partially offset by repayment of debt of $31.5 million, $3.9 million in tax withholding upon the vesting of restricted stock units and $2.5 million in premiums paid on loss on extinguishment of debt.

During the year ended December 31, 2017, cash provided by financing activities was $6.5 million, consisting primarily of net proceeds of $6.4 from the issuance of common stock related to employee equity incentive plans.

During the year ended December 31, 2016, cash provided by financing activities was $111.3 million, consisting primarily of net proceeds of $110.9 million from our IPO completed in October 2016, which is net of bankers fees, commissions and offering costs.

Indebtedness

In December 2015, we entered into a Loan Agreement with Biopharma Secured Investments III Holdings Cayman LP (the "Pharmakon Loan Agreement"). The Pharmakon Loan Agreement provided for up to $55.0 million in term loans split into two tranches as follows: (i) the Tranche A Loans were $30.0 million in term loans, and (ii) the Tranche B Loans were up to $25.0 million in term loans. The Tranche A Loans were drawn on December 4, 2015. The Tranche B Loans were available to be drawn prior to December 4, 2016. No additional draw was taken.

The Tranche A Loans bore interest at a fixed rate equal to 9.50% per annum that was due and payable quarterly in arrears. During the first eight calendar quarters, 50% of the interest due and payable was added to the then outstanding principal.

In December 2015, we used the proceeds from the Pharmakon Loan Agreement to repay $4.9 million of bank debt to SVB. The issuance costs and debt discount were netted against the borrowed funds on the balance sheet.

On October 23, 2018, we repaid the principal amount of the Tranche A Loan of $30.0 million and related accrued interest of $3.3 million. We incurred a $3.0 million loss in connection with the early extinguishment of the Pharmakon Loan Agreement which included a prepayment premium fee of $1.0 million and additional consideration related to prepayment of $1.5 million. The debt balance as of December 31, 2017 was $32.5 million.

Bank Debt

In December 2015, we entered into a Second Amended and Restated Loan and Security Agreement with SVB, (the "SVB Loan Agreement"). Under the SVB Loan Agreement we could borrow, repay and reborrow under a revolving credit line, but not in excess of the maximum loan amount of $15.0 million, until December 4, 2018, when all outstanding principal and accrued interest became due and payable. Any principal amount outstanding under the SVB Loan Agreement shall bear interest at a floating rate per annum equal to the rate published by The Wall Street Journal as the "Prime Rate" plus 0.25%. We may borrow up to 80% of its eligible accounts receivable, up to the maximum of $15.0 million.

In August 2016, we obtained a $3.1 million standby letter of credit pursuant to the SVB Loan Agreement in connection with a lease for the San Francisco office.

In October 2018, we entered into the Third Amended and Restated Loan and Security Agreement with SVB ("Third Amended and Restated SVB Loan Agreement"). This Agreement amends and restates the Second Amended and Restated Loan and Security Agreement between the Company and SVB dated December 4, 2015, as amended by the First Loan Modification Agreement between the Company and SVB dated August 22, 2016.

Pursuant to the Third Amended and Restated SVB Loan Agreement, we obtained a term loan ("SVB Term Loan") for $35.0 million. Total proceeds from the SVB Term Loan were used to pay off the loan agreement with Biopharma Secured Investments III Holdings Cayman LP ("Pharmakon"), totaling $35.8 million. We will make interest-only payments through August 31, 2020, followed by 36 monthly payments of principal plus interest on the SVB Term Loan. Interest charged on the SVB Term Loan will be the greater of (a) a floating rate based on the "Prime Rate" published by The Wall Street Journal minus 0.75%, or (b) 4.25%.

Under the Third Amended and Restated SVB Loan Agreement, we may borrow, repay, and reborrow under a revolving credit line, but not in excess of the maximum loan amount of $25.0 million, which includes an $11.0 million standby letter of credit sublimit availability. In October 2018, a $6.9 million standby letter of credit was obtained in connection with a lease for our San Francisco headquarters. Any principal amount outstanding under the Third Amended and Restated SVB Loan Agreement revolving credit line shall bear interest at an amount that is the greater of (a) a floating rate per annum equal to the rate published by The Wall Street Journal as the "Prime Rate" or (b) 5.00%. We may borrow up to 75% of eligible accounts receivable, up to the maximum of $25.0 million. As of December 31, 2018 we were eligible to borrow up to $1.7 million and no amount was outstanding under the revolving credit line.

The Third Amended and Restated Loan Agreement requires us to maintain a minimum consolidated liquidity ratio or minimum adjusted Earnings Before Interest, Tax, Depreciation, and Amortization during the term of the loan facility. In addition, the SVB Loan Agreement contains customary affirmative and negative covenants and events of default. We were in compliance with loan covenants as of December 31, 2018. The obligations under the Third Amended and Restated Loan Agreement are collateralized by substantially all of our assets.

California HealthCare Foundation Note

In November 2012, we entered into a Note Purchase Agreement and Promissory Note with the California HealthCare Foundation (the "CHCF Note") through which we borrowed $1.5 million. The CHCF Note accrued simple interest of 2.0%. The accrued interest and the principal was to mature in November 2016. In partial consideration for the issuance of the CHCF Note, we issued warrants to purchase 22,807 shares of the Company's Series D convertible preferred stock.

In June 2015, we amended the CHCF Note to extend the maturity date to May 2018.

The CHCF Note was subordinate to other debt. The debt balance, net of debt discount, as of December 31 2017 was $1.5 million. In May 2018, we repaid the principal amount of $1.5 million and related $0.2 million in accrued interest on the CHCF Note.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with United States generally accepted accounting principles ("U.S. GAAP"). The preparation of these financial statements requires our management to make judgments and estimates that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these judgments and estimates under different assumptions or conditions and any such differences may be material. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Revenue Recognition

Our Zio XT monitor, a wearable biosensor, is worn by patients for a monitoring period up to 14 days. The Zio XT monitor is returned to our monitoring facility and the heartbeat data is curated and analyzed by our proprietary algorithms and reviewed by our certified cardiac technicians. The final step in the Zio service is the delivery of an electronic Zio Report to the prescribing physician with a summary of findings. Our Zio service is generally billable when the Zio Report is issued to the physician.

We adopted Accounting Standard Codification Topic 606, *Revenue from Contracts with Customers* ("ASC 606"), on January 1, 2018. We recognized revenue in prior years in accordance with Accounting Standard Codification Topic 954-605, *Health Care Entities - Revenue Recognition* and Accounting Standard Codification Topic 605, *Revenue Recognition*.

We account for contract revenue with a customer when there is a legally enforceable contract between us and the customer, the rights of the parties are identified, the contract has commercial substance, and collectability of the contract consideration is probable. Our revenue is measured based on consideration specified in the contract with each customer. A unique aspect of healthcare is the involvement of multiple parties to the service transaction. In addition to the patient, often a third-party, for example a commercial or governmental payor or healthcare institution, like a hospital or clinic, will pay us for some or all of the service on the patient's behalf. Separate contractual arrangements exist between us and third-party payors that establish amounts the third-party payor will pay on behalf of a patient for covered services rendered and should be considered in determining collectability and the transaction price for services provided to a patient covered by that third-party payor.

We recognize revenue on an accrual basis based on estimates of the amount that will ultimately be realized, which is the difference between the amount submitted for payment and the amount received. These estimates require significant judgment by management. In determining the amount to accrue for a delivered report, we consider factors such as claim payment history from both payors and patient out-of-pocket costs, payor coverage, whether there is a contract between the payor or healthcare institution and us, historical amount received for the service, and any current developments or changes that could impact reimbursement and healthcare institution payments.

A summary of the payment arrangements with third-party payors and healthcare institutions is as follows:

- Contracted third-party payors – We have contracts with negotiated prices for services provided for patients with commercial healthcare insurance carriers
- Centers for Medicare and Medicaid Services ("CMS") – We have received independent diagnostic testing facility approval from regional Medicare Administrative Contractors and will receive reimbursement per the relevant Current Procedural Terminology ("CPT") code rate for the services rendered to the patient covered by CMS.
- Non-contracted third-party payors: Non-contracted commercial and government payors often reimburse out-of-network rates provided under the relevant CPT codes on a case-by-case basis. The transaction price is based on factors including an average of our historical collection experience for our non-contracted services. This rate is reviewed at least quarterly.
- Healthcare institutions – Healthcare institutions are typically hospitals or physician practices in which we have negotiated amounts for its monitoring services, including certain governmental agencies such as the Veteran's Administration and Department of Defense.

We are utilizing the portfolio approach practical expedient under ASC 606 for revenue recognition. We account for the contracts within each portfolio as a collective group, rather than individual contracts. Based on history with these portfolios and the similar nature and characteristics of the patients within each portfolio, we have concluded that the financial statement effects are not materially different than if accounting for revenue on a contract-by-contract basis.

For the healthcare institution and CMS portfolios, we have historical experience of collecting substantially all of the negotiated contractual rates and determined at contract inception that these customers, and or their related third-party payor that pays us on their behalf, have the intention and ability to pay the promised consideration. As such, we have not provided an implicit price concession but, rather, have chosen to accept the risk of default, and adjustments to the transaction price are recorded as bad debt expense.

For contracted portfolios, we are providing an implicit price concession because, while we have a contract with the underlying payor, we expect to accept a lower amount of consideration when claims are adjudicated and allowable claims are determined by the commercial payor. The implicit price concession is recorded as variable consideration to the transaction price and recorded as an adjustment to revenue as a contractual allowance. Historical cash collection indicates that it is probable that substantially all of the contracted claim amount will be received. Subsequent adjustments to the transaction price less variable consideration are subject to impairment assessment where customer credit risk is recorded as bad debt expense.

For non-contracted portfolios, we are providing an implicit price concession because we do not have a contract with the underlying payor, the result of which requires us to estimate transaction price based on historical cash collections utilizing the expected value method. Subsequent adjustments to the transaction price are recorded as an adjustment to revenue and not as bad debt expense.

Allowance for Doubtful Accounts and Contractual Allowance

We establish an allowance for doubtful accounts for estimated uncollectible receivables based on our historical collections, review of specific outstanding claims, consideration of relevant qualitative factors and an established allowance percentage by aging category. We write off outstanding accounts against the allowance for doubtful accounts when they are deemed to be uncollectible. Increases and decreases in the allowance for doubtful accounts are included as a component of general and administrative expenses. We record reductions in revenue for estimated uncollectible amounts as contractual allowances.

We review and update our estimates for the allowance for doubtful accounts and the contractual allowance periodically to reflect our experience regarding historical collections. If we were to make different judgments or utilize different estimates in the allowance for doubtful accounts and the contractual allowance, differences in both the amount of reported general and administrative expenses and revenue could result.

Estimated Usage of the Printed Circuit Board Assembly

We use a printed circuit board assembly ("PCBA") in each wearable device and it is reused numerous times in multiple patients. Each time the PCBA is used in a wearable Zio XT monitor, a portion of the cost of the PCBA is recorded as a cost of revenue. We have based our estimates of how many times a PCBA can be used on testing in research and development, loss rates, product obsolescence, and the amount of time it takes the device to go through the manufacturing, shipping, customer shelf and patient wear time and upload process. We periodically evaluate the use estimate.

Stock-Based Compensation

We recognize compensation costs related to stock option grants, restricted stock unit grants ("RSUs"), and shares under the employee stock purchase program ("ESPP") based on the estimated fair value of the awards on the date of grant, net of estimated forfeitures. We estimate the grant date fair value, and the resulting stock-based compensation expense for options and shares under the ESPP, using the Black-Scholes option pricing model. The RSU grant date fair value is based on the closing price on the date of the grant. The grant date fair value of stock-based awards is expensed on a straight-line basis over the period during which the employee is required to provide service in exchange for the award (generally the vesting period).

We estimate the fair value of our stock-based awards using the Black-Scholes option-pricing model, which requires the input of highly subjective assumptions. Our assumptions are as follows:

- *Expected term.* The expected term represents the period that the stock-based awards are expected to be outstanding. We use the simplified method to determine the expected term, which is calculated as the average of the time to vesting and the contractual life of the options.
- *Expected volatility.* As our common stock has been publicly traded for a limited time, the expected volatility is derived from the average historical volatilities of publicly traded companies within our industry that we consider to be comparable to our business over a period approximately equal to the expected term for employees' options and the remaining contractual life for nonemployees' options.
- *Risk-free interest rate.* The risk-free interest rate is based on the U.S. Treasury yield with a maturity equal to the expected term of the option in effect at the time of grant.
- *Dividend yield.* The expected dividend is assumed to be zero as we have never paid dividends and have no current plans to pay any dividends on our common stock.

In addition to the assumptions used in the Black-Scholes option-pricing model, we also estimate a forfeiture rate to calculate the stock-based compensation for our equity awards. We will continue to use judgment in evaluating the expected volatility, expected terms and forfeiture rates utilized for our stock-based compensation calculations on a prospective basis.

Stock-based compensation expense for options granted to non-employees as consideration for services received is measured on the date of performance at the fair value of the consideration received or the fair value of the equity instruments issued, using the Black-Scholes option-pricing model, whichever can be more reliably measured. Stock-based compensation expense for options granted to non-employees is periodically re-measured as the underlying options vest.

We recognize compensation expense related to restricted stock units based on the grant date fair value on a straight-line basis over the period during which the employee is required to provide service in exchange for the award (generally the vesting period).

We recognize compensation expense related to the Employee Stock Purchase Program ("ESPP") based on the estimated fair value of the options on the date of grant, net of estimated forfeitures. We estimate the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes option pricing model for each purchase period. The grant date fair value is expensed on a straight-line basis over the offering period.

We recorded stock-based compensation expense of $16.3 million, $10.1 million and $1.9 million for the years ended December 31, 2018, 2017 and 2016, respectively. We expect to continue to grant stock options and other equity-based awards in the future, and to the extent that we do, our stock-based compensation expense recognized in future periods will likely increase.

Recent Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU No. 2016-02, Leases ("Topic 842"), which requires lessees to recognize lease liabilities and corresponding right-of-use assets on the Consolidated Balance Sheet for all leases. For finance leases, the lessee would recognize interest expense and amortization of the right-of-use asset and, for operating leases, the lessee would recognize a straight-line lease expense. It also changes the definition of a lease and expands the disclosure requirements of lease arrangements. The Company is currently evaluating the impact of the adoption of this standard, and expects that the impact on the Consolidated Balance Sheet will be material as a result of recognizing right of use assets and liabilities for existing real estate leases. The Company has no embedded leases with suppliers. In addition, the standard will require changes to the Company's current accounting policies, processes, and internal controls. The Company expects to adopt the following practical expedients allowed under Topic 842:

- The package of three practical expedients, which allows entities to make an election that allows them not to reassess (1) embedded leases not classified as leases under Topic 842, (2) Lease classification of existing or expiring leases, and (3) indirect costs for existing or expired leases.
- Combining lease and non-lease components practical expedient, which allows lessees, as an accounting policy election by class of underlying asset, to choose not to separate non-lease components from lease components and instead to account for each separate lease component and the non-lease components associated with that lease component as a single lease component.
- Comparative reporting practical expedient, which allows entities to initially apply Topic 842 at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption.

The Company will adopt Topic 842 in the first quarter of fiscal 2019.

Off-Balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements and do not have any holdings in variable interest entities.

Contractual Obligations

	Payments Due by Period				
	Less Than 1 Year	1 to 3 Years	3 to 5 Years	More Than 5 Years	Total
Debt interest payments [1]	$ 1,663	$ 2,975	$ 974	$ —	$ 5,612
Debt principal payments	—	13,611	21,389	—	35,000
Operating leases	8,135	21,497	22,633	98,209	150,474
Total contractual obligations	$ 9,798	$ 38,083	$ 44,996	$ 98,209	$ 191,086

(1) Debt interest payments calculated based on interest rates in effect as of December 31, 2018.

The table above does not include approximately $7.2 million in non-cancelable purchase orders related to inventory and printed circuit board assemblies entered into in the normal course of operations, which we expect to be paid in less than one year. The table excludes unrecognized tax benefits of $1.5 million as of December 31, 2018 because these uncertain tax positions, if recognized, would be an adjustment to our net deferred tax assets.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risks in the ordinary course of our business. These risks primarily include risk related to interest rate sensitivities and foreign currency exchange rate sensitivity.

Interest Rate Sensitivity

We had cash, cash equivalents and investments of $78.3 million as of December 31, 2018; which consisted of bank deposits, money market funds and U.S. government securities, corporate notes, and commercial paper. Such interest-earning instruments carry a degree of interest rate risk; however, historical fluctuations in interest income have not been significant.

We do not enter into investments for trading or speculative purposes and have not used any derivative financial instruments to manage our interest rate risk exposure. We have not been exposed nor do we anticipate being exposed to material risks due to changes in interest rates. A hypothetical 10% change in interest rates during any of the periods presented would not have had a material impact on our consolidated financial statements.

We had total outstanding debt of $34.9 million and $34.0 million, which is net of debt discount and debt issuance costs, as of December 31, 2018 and 2017, respectively. The Third Amended and Restated SVB Loan Agreement Note carries a variable interest rate based on the "Prime Rate" published by The Wall Street Journal. A hypothetical 10% change in interest rates during any of the periods presented would not have had a material impact on our consolidated financial statements.

Foreign Currency Exchange Rate Sensitivity

We face foreign exchange risk as a result of entering into transactions denominated in currencies other than U.S. dollars, particularly in British Pound Sterling. As of December 31, 2018, we do not consider this risk to be material. We do not utilize any forward foreign exchange contracts. All foreign transactions settle on the applicable spot exchange basis at the time such payments are made.

Item 8. Financial Statements and Supplementary Data.

IRHYTHM TECHNOLOGIES, INC.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of iRhythm Technologies, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of iRhythm Technologies, Inc. and its subsidiary (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of operations, of comprehensive loss, of convertible preferred stock and stockholders' equity (deficit) and of cash flows for each of the three years in the period ended December 31, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above 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 each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company did not maintain, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO because material weaknesses in internal control over financial reporting existed as of that date related to (i) an ineffective control environment commensurate with our financial reporting requirements, due to an insufficient number of professionals with an appropriate level of accounting and internal control knowledge, training and experience, (ii) an ineffective financial statement close process, due to an ineffective business performance review to monitor the completeness and accuracy of the financial results and an ineffective review of journal entries, and (iii) ineffective controls with respect to the review of the accounting for revenue and related accounts receivable, including maintaining effective controls to prevent or detect errors in the assessment of bad debt and revenue reserves.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weaknesses referred to above are described in Management's Annual Report on Internal Control Over Financial Reporting appearing under Item 9A. We considered these material weaknesses in determining the nature, timing, and extent of audit tests applied in our audit of the 2018 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for revenues from contracts with customers in 2018.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in management's report referred to above. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting 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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP
San Jose, California
March 4, 2019

We have served as the Company's auditor since 2009.

IRHYTHM TECHNOLOGIES, INC.

Consolidated Balance Sheets
(In thousands, except par value and share data)

	December 31,	
	2018	2017
Assets		
Current assets:		
Cash and cash equivalents	$ 20,023	$ 8,671
Short-term investments	58,320	93,692
Accounts receivable, net	21,977	12,953
Inventory	2,062	1,683
Prepaid expenses and other current assets	4,100	2,582
Total current assets	106,482	119,581
Investments, long-term	—	2,994
Property and equipment, net	9,158	6,221
Goodwill	862	862
Other assets	3,208	3,465
Total assets	$ 119,710	$ 133,123
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 2,284	$ 2,395
Accrued liabilities	26,570	15,644
Deferred revenue	1,243	1,238
Accrued interest, current portion	139	154
Debt, current portion	—	1,487
Total current liabilities	30,236	20,918
Debt	34,899	32,491
Deferred rent, noncurrent portion	153	161
Total liabilities	65,288	53,570
Commitments and contingencies (Note 6)		
Stockholders' equity:		
Preferred stock, $0.001 par value – 5,000,000 shares authorized at December 31, 2018 and 2017; and none issued and outstanding at December 31, 2018 and 2017, respectively	—	—
Common stock, $0.001 par value – 100,000,000 shares authorized at December 31, 2018 and 2017; 24,368,073 and 23,377,315 shares issued and outstanding at December 31, 2018 and 2017, respectively	23	23
Additional paid-in capital	257,955	236,184
Accumulated other comprehensive loss	(41)	(65)
Accumulated deficit	(203,515)	(156,589)
Total stockholders' equity	54,422	79,553
Total liabilities and stockholders' equity	$ 119,710	$ 133,123

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

IRHYTHM TECHNOLOGIES, INC.

Consolidated Statements of Operations

(In thousands, except share and per share data)

	Year Ended December 31,		
	2018	2017	2016
Revenue	$ 147,293	$ 98,509	$ 64,072
Cost of revenue	38,579	27,708	20,883
Gross profit	108,714	70,801	43,189
Operating expenses:			
Research and development	20,750	13,335	7,150
Selling, general and administrative	131,582	84,737	51,621
Total operating expenses	152,332	98,072	58,771
Loss from operations	(43,618)	(27,271)	(15,582)
Interest expense	(3,115)	(3,386)	(3,248)
Other income (expense), net	1,526	1,237	(2,073)
Loss on extinguishment of debt	(3,029)	—	—
Loss before income taxes	(48,236)	(29,420)	(20,903)
Income tax provision	44	—	—
Net loss	$ (48,280)	$ (29,420)	$ (20,903)
Net loss per common share, basic and diluted	$ (2.02)	$ (1.30)	$ (3.95)
Weighted-average shares, basic and diluted	23,885,858	22,627,327	5,285,847

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

IRHYTHM TECHNOLOGIES, INC.

Consolidated Statements of Comprehensive Loss

(In thousands)

	Year Ended December 31,		
	2018	2017	2016
Net Loss	$ (48,280)	$ (29,420)	$ (20,903)
Other comprehensive income (loss):			
Net change in unrealized gains (losses) on available-for-sale securities	24	(56)	(9)
Comprehensive loss	$ (48,256)	$ (29,476)	$ (20,912)

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

IRHYTHM TECHNOLOGIES, INC.

Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(In thousands, except share and per share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balances at December 31, 2015	11,046,146	$ 97,096	1,410,565	$ 1	$ 4,641	$ (106,266)	$ —	$ (101,624)
Issuance of common stock upon the exercise of options, net of repurchases	—	—	56,827	1	131	—	—	132
Issuance of preferred stock upon exercise of warrants	31,359	457	—	—	—	—	—	—
Issuance of common stock in connection with initial public offering, net of offering costs	—	—	7,238,235	7	110,714	—	—	110,721
Conversion of convertible preferred stock to common stock in connection with initial public offering	(11,077,505)	(97,553)	13,375,333	13	97,540	—	—	97,553
Conversion of convertible preferred stock warrants to common stock warrants in connection with initial public offering	—	—	—	—	4,821	—	—	4,821
Issuance of common stock upon net exercise of warrants	—	—	58,386	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	1,871	—	—	1,871
Net loss	—	—	—	—	—	(20,903)	—	(20,903)
Net change in unrealized loss on investments	—	—	—	—	—	—	(9)	(9)
Balances at December 31, 2016	—	—	22,139,346	22	219,718	(127,169)	(9)	92,562
Issuance of common stock upon in connection with employee equity incentive plans, net	—	—	1,027,595	1	6,389	—	—	6,390
Issuance of common stock upon net exercise of warrants	—	—	210,374	—	—	—	—	—
Tax withholding upon vesting of restricted stock awards	—	—	—	—	(46)	—	—	(46)
Stock-based compensation expense	—	—	—	—	10,123	—	—	10,123
Net loss	—	—	—	—	—	(29,420)	—	(29,420)
Net change in unrealized loss on investments	—	—	—	—	—	—	(56)	(56)
Balances at December 31, 2017	—	—	23,377,315	23	236,184	(156,589)	(65)	79,553
Accounting Standards Codification 606 cumulative effect adjustment upon adoption	—	—	—	—	—	1,354	—	1,354
Issuance of common stock in connection with employee equity incentive plans, net	—	—	990,758	—	9,319	—	—	9,319
Tax withholding upon vesting of restricted stock awards	—	—	—	—	(3,877)	—	—	(3,877)
Stock-based compensation expense	—	—	—	—	16,329	—	—	16,329
Net loss	—	—	—	—	—	(48,280)	—	(48,280)
Net change in unrealized loss on investments	—	—	—	—	—	—	24	24
Balances at December 31, 2018	—	$ —	24,368,073	$ 23	$ 257,955	$ (203,515)	$ (41)	$ 54,422

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

IRHYTHM TECHNOLOGIES, INC.

Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2018	**2017**	**2016**
Cash flows from operating activities			
Net loss	$ (48,280)	$ (29,420)	$ (20,903)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	2,269	1,597	568
Stock-based compensation	16,329	10,123	1,871
Amortization of debt discount and issuance costs	210	260	251
Amortization (accretion) on investments	(907)	(352)	6
Loss on disposal of assets	75	9	—
Provision for bad debt and contractual allowance	15,218	9,403	4,686
Change in fair value of preferred stock warrant liabilities	—	—	2,123
Non-cash interest expense	—	1,550	1,481
Loss on extinguishment of debt	3,029	—	—
Repayment of interest paid in kind	(3,141)	—	—
Changes in operating assets and liabilities:			
Accounts receivable	(22,885)	(12,950)	(8,515)
Inventory	(380)	(293)	(245)
Prepaid expenses and other current assets	(1,568)	(795)	(863)
Other assets	269	(467)	(1,235)
Accounts payable	(192)	634	305
Accrued liabilities	10,776	5,364	3,380
Deferred rent	105	135	(2)
Deferred revenue	5	291	441
Net cash used in operating activities	(29,068)	(14,911)	(16,651)
Cash flows from investing activities			
Purchases of property and equipment	(5,180)	(3,562)	(2,763)
Purchases of available-for-sale investments	(93,158)	(129,829)	(65,403)
Sales of available-for-sale investments	5,962	—	—
Maturities of available-for-sale investments	126,493	98,707	—
Net cash provided by (used in) investing activities	34,117	(34,684)	(68,166)
Cash flows from financing activities			
Proceeds from issuance of common stock upon exercise of stock options, net of repurchases	9,319	6,390	132
Proceeds from issuance of common stock upon exercise of warrants	—	—	206
Tax withholding upon vesting of restricted stock awards	(3,877)	(46)	—
Payments of deferred offering costs	—	188	(3,522)
Proceeds from long-term debt, net of debt discount and issuance costs	35,000	—	—
Repayments of long-term debt	(31,500)	—	—
Payments of issuance costs for long term debt	(121)	—	—
Proceeds of issuance of common stock upon initial public offering	—	—	114,436
Premiums paid on extinguishment of debt	(2,518)	—	—
Net cash provided by financing activities	6,303	6,532	111,252
Net increase (decrease) in cash and cash equivalents	11,352	(43,063)	26,435
Cash and cash equivalents, beginning of year	8,671	51,734	25,299
Cash and cash equivalents, end of year	$ 20,023	$ 8,671	$ 51,734
Supplemental disclosures of cash flow information			
Interest paid	$ 6,065	$ 1,550	$ 1,591
Non-cash investing and financing activities			
Property and equipment included in accounts payable and accrued liabilities	$ 101	$ 35	$ 423
Deferred offering costs included in accounts payable and accrued liabilities	$ —	$ —	$ 188
Conversion of preferred stock to common stock	$ —	$ —	$ 97,553
Conversion of preferred stock warrants to common stock warrants	$ —	$ —	$ 4,821

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

1. Organization and Description of Business

iRhythm Technologies, Inc. (the "Company") was incorporated in the state of Delaware in September 2006. The Company is a digital healthcare company redefining the way cardiac arrhythmias are clinically diagnosed by combining wearable biosensing technology with cloud-based data analytics and deep-learning capabilities. The Company commenced commercial introduction of its products in the United States in 2009 following clearance by the U.S. Food and Drug Administration.

The Company is headquartered in San Francisco, California, which also serves as a clinical center. The Company has additional clinical centers in Lincolnshire, Illinois and Houston, Texas and a manufacturing facility in Cypress, California. In March 2016, the Company formed a wholly-owned subsidiary in the United Kingdom. The Company manages its operations as a single operating segment. Substantially all of the Company's assets are maintained in the United States. The Company derives substantially all of its revenue from sales to customers in the United States.

Reverse Stock Split

On October 4, 2016, the Company's board of directors approved an amendment to the Company's amended and restated certificate of incorporation to effect a reverse split of the Company's issued and outstanding common stock at a 1-for- 5.882698 ratio, which was effected on October 5, 2016. The par value and authorized shares of common stock and convertible preferred stock were not adjusted as a result of the reverse split. All issued and outstanding common stock, options to purchase common stock and per share amounts contained in these consolidated financial statements have been retroactively adjusted to reflect the reverse stock split for all periods presented.

Initial Public Offering

The Company's initial public offering of 7,238,235 shares of common stock was effected through a registration statement on Form S-1 (Registration Nos. 333-213773 and 333-214179), which was declared effective on October 19, 2016. The initial public offering closed on October 25, 2016 and resulted in net proceeds of approximately $110.7 million, after deducting underwriting discounts and commissions of $8.6 million and other expenses of $3.7 million.

In October 2016, immediately upon the Company's sale of its common stock in the initial public offering, all outstanding shares of convertible preferred stock converted into 13,375,333 shares of common stock with the related carrying value of $97.6 million reclassified to common stock and additional paid-in capital. In addition, all convertible preferred stock warrants were also thereby converted into common stock warrants.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles and include the accounts of iRhythm Technologies, Inc. and its wholly-owned subsidiary, iRhythm Technologies Ltd., established in March 2016. All intercompany accounts and transactions have been eliminated. The financial statements of iRhythm Technologies Ltd. use the U.S. dollar as the functional currency. For all non-functional currency balances, the remeasurement of such balances to functional currency results in a foreign exchange transaction gain or loss, which is recorded in the consolidated statements of operations.

Use of Estimates

The preparation of the consolidated 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 assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. On an ongoing basis, management evaluates its estimates, including those related to revenue recognition, contractual allowances for revenue, allowance for doubtful accounts, the useful lives of property and equipment, the recoverability of long-lived assets including the estimated usage of the printed circuit board assemblies ("PCBAs"), accounting for income taxes, the fair value of the Company's common stock and stock-based compensation. The Company bases these estimates on historical and anticipated results, trends, and various other assumptions that the Company believes are reasonable under the circumstances, including assumptions as to future events. Actual results may differ from those estimates.

Fair Value of Financial Instruments

The carrying amounts of certain of the Company's financial instruments, which include cash equivalents, short-term investments, long-term investments, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their short maturities.

Cash Equivalents

Cash equivalents consist of short-term, highly liquid investments with original maturities of three months or less from the date of purchase.

Investments

Short-term investments consist of debt securities classified as available-for-sale and have maturities greater than 90 days, but less than one year as of the balance sheet date. Long-term investments have maturities greater than one year as of the balance sheet date. All investments are carried at fair value based upon quoted market prices. Unrealized gains and losses on available-for-sale securities are excluded from earnings and are reported as a component of accumulated other comprehensive loss. The cost of available-for-sale securities sold is based on the specific-identification method. Realized gains and losses are included in earnings, and are derived for specific-identification method for determining the costs of investments sold. Amortization of premiums and accretion of discounts are reported as a component of interest income and interest expense, respectively.

Accounts Receivable, Allowance for Doubtful Accounts and Contractual Allowance

Accounts receivable consists of amounts due to the Company from institutions and third-party government and commercial payors and their related patients, as a result of the Company's normal business activities. Accounts receivable is reported on the balance sheets net of an estimated allowance for doubtful accounts and contractual allowance.

The Company establishes an allowance for doubtful accounts for estimated uncollectible receivables based on its historical experience and recognizes the provision as a component of selling, general and administrative expenses. The Company establishes a contractual allowance when it estimates that consideration to be received will be lower than the contracted rate based on its historical experience and recognizes the provision as a reduction to revenue.

The following table presents the changes in the allowance for doubtful accounts (in thousands):

	Year ended December 31,	
	2018	2017
Balance, beginning of year	$ 3,568	$ 1,792
Add: provision for doubtful accounts	5,826	3,640
Less: write-offs, net of recoveries and other adjustments	(4,543)	(1,864)
Balance, end of year	$ 4,851	$ 3,568

The following table presents the changes in the contractual allowance (in thousands):

	Year ended December 31,	
	2018	2017
Balance, beginning of year	$ 7,444	$ 2,340
Add: allowance for contractual adjustments	9,392	5,763
Less: contractual adjustments	(6,235)	(659)
Balance, end of year	$ 10,601	$ 7,444

The following table presents the impact of allowance for doubtful accounts and contractual allowance on accounts receivable (in thousands):

	Year ended December 31,	
	2018	2017
Gross accounts receivable	$ 37,429	$ 23,965
Less: allowance for doubtful accounts	(4,851)	(3,568)
Less: contractual allowance	(10,601)	(7,444)
Net accounts receivable	$ 21,977	$ 12,953

The Company reviews and updates its estimates for the allowances for doubtful accounts and contractual allowance periodically to reflect its experience regarding historical collections. If management were to make different judgments or utilize different estimates in the allowances for doubtful accounts and contractual allowance, differences in the amount of reported selling, general and administrative expenses and revenue could result, respectively.

Concentrations of Risk

Credit Risk

Financial instruments that potentially subject the Company to a concentration of credit risk consist primarily of cash and cash equivalents, investments and accounts receivable. Cash, cash equivalents, and investments are deposited in financial institutions which, at times, may be in excess of federally insured limits. Cash equivalents are invested in highly rated money market funds. The Company invests in a variety of financial instruments, such as, but not limited to, United States Government securities, corporate notes, commercial paper and, by policy, limits the amount of credit exposure with any one financial institution or commercial issuer. The Company has not experienced any material losses on its deposits of cash and cash equivalents or investments.

Concentrations of credit risk with respect to accounts receivable are limited due to the large number of customers comprising the Company's customer base and their dispersion across many geographies. The Company does not require collateral. The Company records an allowance for doubtful accounts when it becomes probable that a receivable will not be collected. Federal government agencies, including CMS and the military, accounted for approximately 37%, 37% and 40% of the Company's revenue for the years ended December 31, 2018, 2017 and 2016, respectively. Accounts receivable related to federal government agencies accounted for 18% and 27% at December 31, 2018 and 2017, respectively.

Supply Risk

While the Company has not experienced manufacturing supply disruptions to date, the Company relies on single-source vendors for the supply of its disposable housings, instruments and other materials used to manufacture the Zio monitor and the adhesive that binds the Zio monitor to a patient's body. These components and materials are critical, and there could be a considerable delay in finding alternative sources of supply.

Inventory

Inventory is stated at the lower of cost or net realizable value, cost being determined on a standard cost basis for material costs and on actual cost basis for labor and overhead, which approximates actual cost on a first in, first out ("FIFO") basis, and market being determined as the lower of cost or net realizable value. The Company records write-downs of inventory that is obsolete or in excess of anticipated demand. The Company also records market value based write-downs on consideration of product lifecycle stage, technology trends, product development plans and assumptions about future demand and market conditions. Actual demand may differ from forecasted demand, and such differences may have a material effect on recorded inventory values. Inventory write-downs are charged to cost of revenue and establish a new cost basis for the inventory.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization is computed using the straight-line method over the estimated useful lives of the assets, ranging from three to five years. Leasehold improvements are amortized over the shorter of the lease term or the estimated useful lives of the assets. Maintenance and repairs are charged to expense as incurred, and improvements and betterments are capitalized.

Internal-Use Software

The Company capitalizes costs related to internal-use software during the application development stage. Costs related to planning and post implementation activities are expensed as incurred. Capitalized internal-use software is amortized, and recognized as cost of revenue, on a straight-line basis over the estimated useful life, which is up to five years. The Company evaluates the useful lives of these assets on an annual basis, and tests for impairment whenever events or changes in circumstances occur that could impact the recoverability of these assets. Capitalized internal-use software costs are classified as a component of property and equipment.

Goodwill

Goodwill represents the excess of the purchase price paid over the fair value of tangible and identifiable intangible net assets acquired in business combinations. Goodwill is tested for impairment on an annual basis and at any other time if events occur or circumstances indicate that the carrying amount of goodwill may not be recoverable. Such events or circumstances may include significant adverse changes in the general business climate, among other things. The impairment test is performed by determining the enterprise fair value of the Company, which is primarily based on the Company's market capitalization. If the Company's carrying value, as a one reporting unit entity, is less than its fair value, then the fair value is allocated to all of its assets and liabilities (including

any unrecognized intangible assets) as if the fair value was the purchase price to acquire the Company. The excess of the fair value over the amounts assigned to the Company's assets and liabilities is the implied fair value of the goodwill. If the carrying amount of goodwill exceeds the implied fair value of that goodwill, an impairment loss is recognized in an amount equal to that excess. The Company performs its annual evaluation of goodwill during the fourth quarter of each fiscal year. The Company did not record any charges related to goodwill impairment in any of the periods presented in these consolidated financial statements.

Impairment of Long-Lived Assets

The Company annually reviews long-lived assets for impairment or whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability is measured by comparison of the carrying amount to the future net cash flows which the assets are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the projected discounted future net cash flows arising from the asset. To date, there have been no such impairments of long-lived assets.

Other Assets

Included in the other assets are printed circuit board assemblies ("PCBAs") totaling $2.5 million and $3.3 million as of December 31, 2018 and 2017, respectively. The Company uses a PCBA in each wearable Zio XT monitor which is used numerous times and has a useful life beyond one year. Each time the PCBA is used in a wearable Zio XT monitor, a portion of the cost of the PCBA is recorded as a cost of revenue. The Company has based its estimates of how many times a PCBA can be used on testing in research and development, loss rates, product obsolescence, and the amount of time it takes the device to go through the manufacturing, shipping, customer shelf and patient wear time and upload process. The Company periodically evaluates the use estimate.

Comprehensive Loss

Comprehensive loss represents all changes in stockholders' equity during the period from non-owner sources. The Company's unrealized gains and losses on available-for-sale securities represent the only component of other comprehensive income (loss) that are excluded from the reported net loss and that are presented in the consolidated statements of comprehensive income.

Revenue Recognition

The Company adopted Accounting Standard Codification Topic 606, *Revenue from Contracts with Customers* ("ASC 606"), on January 1, 2018. The Company recognized revenue in prior years in accordance with Accounting Standard Codification Topic 954-605, *Health Care Entities - Revenue Recognition* and Accounting Standard Codification Topic 605, *Revenue Recognition*.

The Company's revenue is generated primarily from the provision of its cardiac rhythm monitoring service, the Zio XT service. The Zio XT is a cardiac rhythm monitoring service that has a patient wear period of up to 14 days and is billable when the monitoring reports are delivered to the healthcare provider, which is also when the service is complete and the Company recognizes revenue. The time from when the patient has the Zio XT device applied to the time the report is posted is generally around 20 days.

The Company accounts for contract revenue with a customer when there is a legally enforceable contract between the Company and the customer, the rights of the parties are identified, the contract has commercial substance, and collectability of the contract consideration is probable. The Company's revenue is measured based on consideration specified in the contract with each customer. A unique aspect of healthcare is the involvement of multiple parties to the service transaction. In addition to the patient, often a third-party, for example a commercial or governmental payor or healthcare institution, like a hospital or clinic, will pay the Company for some or all of the service on the patient's behalf. Separate contractual arrangements exist between the Company and third-party payors that establish amounts the third-party payor will pay on behalf of a patient for covered services rendered and should be considered in determining collectability and the transaction price for services provided to a patient covered by that third-party payor.

The Company recognizes revenue on an accrual basis based on estimates of the amount that will ultimately be realized. These estimates require significant judgment by management. In determining the amount to recognize for a delivered report, the Company considers factors such as claim payment history from both payors and patient out-of-pocket costs, payor coverage, whether there is a contract between the payor or healthcare institution and the Company, historical amount received for the service, and any current developments or changes that could impact reimbursement and healthcare institution payments.

A summary of the payment arrangements with third-party payors and healthcare institutions is as follows:

- Contracted third-party payors – The Company has contracts with negotiated prices for services provided for patients with commercial healthcare insurance carriers
- Centers for Medicare and Medicaid Services ("CMS") – The Company has received independent diagnostic testing facility approval from regional Medicare Administrative Contractors and will receive reimbursement per the relevant Current Procedural Terminology ("CPT") code rate for the services rendered to the patient covered by CMS.
- Non-contracted third-party payors – Non-contracted commercial and government payors often reimburse out-of-network rates provided under the relevant CPT codes on a case-by-case basis. The transaction price is based on factors including an average of the Company's historical collection experience for its non-contracted services. This rate is reviewed at least quarterly.
- Healthcare institutions – Healthcare institutions are typically hospitals or physician practices in which the Company has negotiated amounts for its monitoring services, including certain governmental agencies such as the Veteran's Administration and Department of Defense.

The Company is utilizing the portfolio approach practical expedient under ASC 606 for revenue recognition. The Company accounts for the contracts within each portfolio as a collective group, rather than individual contracts. Based on history with these portfolios and the similar nature and characteristics of the patients within each portfolio, the Company has concluded that the financial statement effects are not materially different than if accounting for revenue on a contract-by-contract basis.

For the healthcare institution and CMS portfolios, the Company has historical experience of collecting substantially all of the negotiated contractual rates and determined at contract inception that these customers, and or their related third-party payor that pays the Company on their behalf, have the intention and ability to pay the promised consideration. As such, the Company is not providing an implicit price concession but, rather, has chosen to accept the risk of default, and any subsequent impairment of the related receivable are recorded as bad debt expense.

For contracted portfolios, the Company is providing an implicit price concession because, while the Company has a contract with the underlying payor, the Company expects to accept a lower amount of consideration when claims are adjudicated and allowable claims are determined by the commercial payor. The implicit price concession is recorded as variable consideration to the transaction price and recorded as an adjustment to revenue as a contractual allowance. Historical cash collection indicates that it is probable that substantially all of the allowable claim amount will be received, and hence this amount is recorded as revenue. Any subsequent impairment of the related receivable is recorded as bad debt expense.

For non-contracted portfolios, the Company is providing an implicit price concession because the Company does not have a contract with the underlying payor, the result of which requires the Company to estimate transaction price based on historical cash collections utilizing the expected value method. Subsequent adjustments to the transaction price are recorded as an adjustment to revenue and not as bad debt expense.

Disaggregation of Revenue

The Company disaggregates revenue from contracts with customers by payor type. The Company believes these categories aggregate the payor types by nature, amount, timing and uncertainty of its revenue streams. Disaggregated revenue by payor type and major service line for the year ended December 31, 2018 was as follows (in thousands):

	Year Ended December 31, 2018
Commercial Payors	$ 69,363
Centers for Medicare & Medicaid	40,552
Healthcare Institutions	37,378
Total	$ 147,293

Contract Liabilities

ASC 606 requires an entity to present a revenue contract as a contract liability when the Company has an obligation to transfer goods or services to a customer for which the Company has received consideration from the customer, or an amount of consideration from the customer is due and unconditional (whichever is earlier).

Certain of the Company's customers pay the Company directly for the Zio XT service upon shipment of devices. Such advance payments, or contract liabilities, are recorded as deferred revenue on the Condensed Consolidated Balance Sheets and revenue is recognized when reports are delivered to physicians. During the year ended December 31, 2018, $1.2 million relating to the contract liability balance at the beginning of 2018 was recognized as revenue.

Contract Costs

Under ASC 340, the incremental costs of obtaining a contract with a customer are recognized as an asset. Incremental costs of obtaining a contract are those costs that an entity incurs to obtain a contract with a customer that it would not have incurred if the contract had not been obtained.

The Company's current commission programs are considered incremental. However, as a practical expedient, ASC 340 permits the Company to immediately expense contract acquisition costs, as the asset that would have resulted from capitalizing these costs will be amortized in one year or less.

Cost of Revenue

Cost of revenue is expensed as incurred, and includes direct labor, material costs, equipment and infrastructure expenses, amortization of internal-use software, allocated overhead, and shipping and handling. Direct labor includes payroll and personnel-related costs involved in manufacturing, data analysis, and customer service. Material costs include both the disposable costs of the device and amortization of the PCBAs. Each time the PCBA is used in a wearable Zio XT monitor, a portion of the cost of the PCBA is recorded as a cost of revenue.

Research and Development

The Company's research and development costs are expensed as incurred. Research and development costs include, but are not limited to, payroll and personnel-related expenses, laboratory supplies, consulting costs and overhead charges.

Income Taxes

The Company uses the asset and liability method to account for income taxes in accordance with the authoritative guidance for income taxes. Under this method, deferred tax assets and liabilities are determined based on future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases, and tax loss and credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. A valuation allowance is established when necessary to reduce deferred tax assets to the amount expected to be realized.

On December 22, 2017, the 2017 Tax Cuts and Jobs Act (Tax Act) was enacted into law and the new legislation contains several key tax provisions that affected the Company, including a one-time mandatory transition tax on accumulated foreign earnings and a reduction of the corporate income tax rate to 21% effective January 1, 2018, among others. The Company was required to recognize the effect of the tax law changes in the period of enactment, such as determining the transition tax and remeasuring U.S. deferred tax assets and liabilities. In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which allowed the Company to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. As a result, the Company previously provided a provisional estimate of the effect of the Tax Act in its financial statements. In the fourth quarter of 2018, the Company completed the analysis to determine the effect of the Tax Act and recorded immaterial adjustments as of December 31, 2018.

The Company recognizes the effect of income tax positions only if those positions are more likely than not of being sustained. Recognized income tax positions are measured at the largest amount that has a greater than 50% likelihood of being realized. Changes in recognition or measurement are reflected in the period in which the change in judgment occurs. The Company records interest and penalties related to unrecognized tax benefits in income tax expense. To date, there have been no interest or penalties charged in relation to the unrecognized tax benefits.

Stock-based Compensation

The Company measures its stock-based awards made to employees based on the estimated fair values of the awards as of the grant date. The fair value of stock options is determined using the Black-Scholes option pricing model. Stock-based compensation expense is recognized over the requisite service period using the straight-line method and is based on the value of the portion of stock-based payment awards that is ultimately expected to vest. As such, the Company's stock-based compensation is reduced for the estimated forfeitures at the date of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. For restricted stock, the compensation cost for these awards is based on the closing price of the Company's common stock on the date of grant, and recognized as compensation expense on a straight-line basis over the requisite service period.

The Company recognizes compensation expense related to the Employee Stock Purchase Program ("ESPP") based on the estimated fair value of the options on the date of grant, net of estimated forfeitures. The Company estimates the grant date fair value, and the resulting stock-based compensation expense, using the Black-Scholes option pricing model for each purchase period. The grant date fair value is expensed on a straight-line basis over the offering period.

Net Loss per Common Share

Basic net loss per common share is calculated by dividing the net loss by the weighted average number of shares of common stock outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per common share is the same as basic net loss per common share for all periods presented, since the effect of potentially dilutive securities are anti-dilutive.

Recently Adopted Accounting Guidance

In May 2014, the Financial Accounting Standards Board ("FASB"), issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers (Topic 606)*. Areas of revenue recognition affected include, but are not limited to, transfer of control, variable consideration, allocation of transfer pricing, licenses, time value of money, contract costs and disclosures. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than were required under previous GAAP. In addition, Topic 606 requires more detailed disclosures to enable users of financial statements to understand the nature, timing and uncertainty of revenue and cash flows arising from a review of historical accounting policies and practices to identify potential differences in applying Topic 606.

The Company adopted this standard on January 1, 2018 and used the modified retrospective approach. Upon adoption, the Company recognized the cumulative effect of $1.4 million as an adjustment to decrease the opening balance of the Company's accumulated deficit. This adjustment did not have a material impact on the Company's consolidated financial statements. Prior periods were not retrospectively adjusted.

The following table presents the impact of adoption of ASU 2014-09 on the Consolidated Statement of Operations and the Consolidated Balance Sheet (in thousands):

	Year Ended December 31, 2018		
Consolidated Statement of Operations Impact:	As Reported	Without the adoption of Topic 606	Impact
Revenue	$ 147,293	$ 145,320	$ 1,973
Sales, General & Administrative Expense	$ 131,582	$ 132,603	$ (1,021)
Net Loss	$ (48,280)	$ (51,274)	$ 2,994

	December 31, 2018		
Consolidated Balance Sheet Impact:	As Reported	Without the adoption of Topic 606	Impact
Accounts Receivable, net	$ 21,977	$ 17,629	$ 4,348
Accumulated Deficit	$ (203,515)	$ (207,863)	$ 4,348

In November 2016, the FASB issued ASU No. 2016-18 Statement of Cash Flow: Restricted Cash (Topic 230), which provides guidance on the classification of restricted cash to be included with cash and cash equivalents when reconciling the beginning of period and end of period total amounts on the statement of cash flows. The amendments of this ASU are effective for interim and annual periods beginning after December 15, 2017. The standard must be applied retrospectively to all periods presented and the Company adopted the

standard on January 1, 2018. The adoption of this standard did not have a material impact on the Company's Condensed Consolidated Statement of Cash Flows.

Recent Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU No. 2016-02, Leases ("Topic 842"), which requires lessees to recognize lease liabilities and corresponding right-of-use assets on the Consolidated Balance Sheet for all leases. For finance leases, the lessee would recognize interest expense and amortization of the right-of-use asset and, for operating leases, the lessee would recognize a straight-line lease expense. It also changes the definition of a lease and expands the disclosure requirements of lease arrangements. The Company is currently evaluating the impact of the adoption of this standard, and expects that the impact on the Consolidated Balance Sheet will be material as a result of recognizing right of use assets and liabilities for existing real estate leases. The Company has no embedded leases with suppliers. In addition, the standard will require changes to the Company's current accounting policies, processes, and internal controls. The Company expects to adopt the following practical expedients allowed under Topic 842:

- The package of three practical expedients, which allows entities to make an election that allows them not to reassess (1) embedded leases not classified as leases under Topic 842, (2) Lease classification of existing or expiring leases, and (3) indirect costs for existing or expired leases.
- Combining lease and non-lease components practical expedient, which allows lessees, as an accounting policy election by class of underlying asset, to choose not to separate non-lease components from lease components and instead to account for each separate lease component and the non-lease components associated with that lease component as a single lease component.
- Comparative reporting practical expedient, which allows entities to initially apply Topic 842 at the adoption date and recognize a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption.

The Company will adopt Topic 842 in the first quarter of fiscal 2019.

3. Cash Equivalents and Investments

The fair value of securities, not including cash at December 31, 2018 and 2017 were as follows (in thousands):

	December 31, 2018			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	$ 10,606	$ —	$ —	$ 10,606
U.S. government securities	9,976	—	(1)	9,975
Corporate notes	16,514	3	(18)	16,499
Commercial paper	36,331	—	—	36,331
Total available-for-sale marketable debt securities	$ 73,427	$ 3	$ (19)	$ 73,411
Classified as:				
Cash equivalents				$ 15,091
Short-term investments				58,320
Total				$ 73,411

	December 31, 2017			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Money market funds	$ 5,574	$ —	$ —	$ 5,574
U.S. government securities	24,969	—	(29)	24,940
Corporate notes	24,539	—	(36)	24,503
Commercial paper	47,243	—	—	47,243
Total available-for-sale marketable debt securities	$ 102,325	$ —	$ (65)	$ 102,260
Classified as:				
Cash equivalents				$ 5,574
Short-term investments				93,692
Long-term investments				2,994
Total				$ 102,260

Available-for-sale securities held as of December 31, 2018 had a weighted average days to maturity of 62 days. As of December 31, 2018, the Company had 8 investments in an unrealized loss position. There have been no material realized gains or realized losses on available-for-sale securities for the periods presented.

As the carrying value approximates the fair value for the Company's cash equivalents, short-term and long-term marketable securities shown in the tables above, the following table summarizes the fair value of the Company's cash equivalents, short-term and long-term marketable securities classified by maturity as of December 31, 2018 and 2017 (in thousands):

	December 31,	
	2018	2017
Due within one year	$ 73,411	$ 99,266
Due after one year through three years	—	2,994
Total available-for-sale marketable debt securities	$ 73,411	$ 102,260

The following tables present the Company's available-for-sale securities that were in an unrealized loss position as of December 31, 2018 and December 31, 2017 (in thousands):

	December 31, 2018			
	Less than 12 months		12 Months or Greater	
Assets	Fair Value	Unrealized Loss	Fair Value	Unrealized Loss
U.S. government securities	$ 5,977	$ (1)	$ —	$ —
Corporate notes	11,521	(10)	2,993	(8)
Total	$ 17,498	$ (11)	$ 2,993	$ (8)

	December 31, 2017	
	Less than 12 months	
Assets	Fair Value	Unrealized Loss
U.S. government securities	$ 24,940	$ (29)
Corporate notes	24,503	(36)
Commercial paper	7,866	—
Total	$ 57,309	$ (65)

4. Fair Value Measurements

The Company discloses and recognizes the fair value of its assets and liabilities using a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The hierarchy gives the highest priority to valuations based upon unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to valuations based upon unobservable inputs that are significant to the valuation (Level 3 measurements). The guidance establishes three levels of the fair value hierarchy as follows:

Level 1—Inputs are unadjusted quoted prices in active markets for identical assets or liabilities at the measurement date.

Level 2—Inputs (other than quoted market prices included in Level 1) are either directly or indirectly observable for the asset or liability through correlation with market data at the measurement date and for the duration of the instrument's anticipated life.

Level 3—Inputs reflect management's best estimate of what market participants would use in pricing the asset or liability at the measurement date. Consideration is given to the risk inherent in the valuation technique and the risk inherent in the inputs to the model.

Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability. The corporate notes, commercial paper and government bonds are classified as Level 2 as they were valued based upon quoted market prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques

for which all significant inputs are observable in the market or can be corroborated by observable market data for substantially the full term of the assets.

The fair value of the Company's outstanding interest-bearing obligations is estimated using the net present value of the payments, discounted at an interest rate that is consistent with market interest rates, which is a Level 2 input. Both the carrying amount and the estimated fair value of the Company's outstanding interest-bearing obligations at December 31, 2018 were $34.9 million and $34.9 million. The carrying amount and the estimated fair value of the Company's outstanding interest-bearing obligations at December 31, 2017 were $34.0 million and $38.6 million, respectively.

The Company had no transfers between levels of the fair value hierarchy of its assets measured at fair value.

The following table presents the fair value of the Company's financial assets determined using the inputs defined above (in thousands).

	December 31, 2018			
	Level 1	Level 2	Level 3	Total
Assets				
Money market funds	$ 10,606	$ —	$ —	$ 10,606
U.S. government securities	—	9,975	—	9,975
Corporate notes	—	16,499	—	16,499
Commercial paper	—	36,331	—	36,331
Total	$ 10,606	$ 62,805	$ —	$ 73,411

	December 31, 2017			
	Level 1	Level 2	Level 3	Total
Assets				
Money market funds	$ 5,574	$ —	$ —	$ 5,574
U.S. government securities	—	24,940	—	24,940
Corporate notes	—	24,503	—	24,503
Commercial paper	—	47,243	—	47,243
Total	$ 5,574	$ 96,686	$ —	$ 102,260

5. Balance Sheet Components

Inventory

Inventory and Printed Circuit Board Assemblies ("PCBAs"), which are recorded as other assets as they are used many times over a period longer than one year on average, consisted of the following (in thousands):

	December 31,	
	2018	2017
Raw materials	$ 1,028	$ 1,103
Finished goods	3,565	3,830
Total	$ 4,593	$ 4,933

	December 31,	
	2018	2017
Reported on the consolidated balance sheet as:		
Inventory	$ 2,062	$ 1,683
Other assets	2,531	3,250
Total	$ 4,593	$ 4,933

Amounts reported as other assets are comprised of the PCBA costs that are included in both raw materials and finished goods totals above.

Property and Equipment, Net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2018	2017
Laboratory and manufacturing equipment	$ 2,750	$ 1,994
Computer equipment and software	1,062	1,015
Furniture and fixtures	925	953
Leasehold improvements	726	726
Internal-use software	8,925	4,598
Total property and equipment, gross	14,388	9,286
Less: accumulated depreciation and amortization	(5,230)	(3,065)
Total property and equipment, net	$ 9,158	$ 6,221

Depreciation and amortization expense for the years ended December 31, 2018, 2017 and 2016 was $2.3 million, $1.6 million, and $0.6 million, respectively.

Accrued Liabilities

Accrued liabilities consisted of the following (in thousands):

	December 31,	
	2018	2017
Accrued vacation	$ 2,825	$ 2,081
Accrued payroll and related expenses	18,188	9,361
Accrued professional services fees	1,243	1,041
Claims payable	2,374	1,375
Other	1,940	1,786
Total accrued liabilities	$ 26,570	$ 15,644

6. Commitments and Contingencies

Lease Arrangements

The Company leases office and manufacturing space under non-cancelable operating leases which expire on various dates through 2031. These leases generally contain scheduled rent increases or escalation clauses and renewal options. The Company recognizes rent expense on a straight-line basis over the lease period.

The following table summarizes the Company's future minimum lease payments as of December 31, 2018 (in thousands):

Year Ending December 31:	
2019	$ 8,135
2020	10,669
2021	10,828
2022	11,150
2023	11,483
Thereafter	98,209
Total	$ 150,474

On October 4, 2018, the Company entered into an office lease ("San Francisco Lease") to rent approximately 117,560 rentable square feet in San Francisco, California, which will become the Company's new headquarters. The Company's current headquarters is in the same building as the San Francisco Lease.

The San Francisco lease is expected to commence on or around April 1, 2019 and has a twelve-year term, which will expire on August 31, 2031. The Company is entitled to one option to extend the San Francisco Lease for a five-year term, subject to certain requirements. In addition, the landlord will provide a tenant improvement allowance of up to $2.4 million for leasehold improvements in connection with the cost of construction of the initial alterations within the premises.

Annual rental payments will be $10.0 million, with a 3% increase each year and will be capitalized in accordance with Topic 842. Annual rental payments on the San Francisco Lease have been included in the table above.

The Company has obtained a standby letter of credit in the amount of $6.9 million, which may be drawn down by the landlord to be applied for certain purposes upon the Company's breach of any provisions under the San Francisco Lease.

The Company's rent expense was $5.5 million, $5.1 million and $3.1 million for the years ended December 31, 2018, 2017 and 2016, respectively.

Legal Proceedings

From time to time, the Company may become involved in legal proceedings arising from the ordinary course of its business. Management is currently not aware of any matters that could have a material adverse effect on the financial position, results of operations or cash flows of the Company.

Indemnifications

In the ordinary course of business, the Company enters into agreements that may include indemnification provisions. Pursuant to such agreements, the Company may indemnify, hold harmless and defend an indemnified party for losses suffered or incurred by the indemnified party. Some of the provisions will limit losses to those arising from third-party actions. In some cases, the indemnification will continue after the termination of the agreement. The maximum potential amount of future payments the Company could be required to make under these provisions is not determinable. The Company has also entered into indemnification agreements with its directors and officers that may require the Company to indemnify its directors and officers against liabilities that may arise by reason of their status or service as directors or officers to the fullest extent permitted by California corporate law. The Company currently has directors' and officers' insurance. The Company has never incurred material costs to defend lawsuits or settle claims related to these indemnification provisions, and believes that the estimated fair value of these indemnification obligations is not material and it has not accrued any amounts for these obligations.

7. Debt

Pharmakon Loan Agreement

In December 2015, the Company entered into a Loan Agreement with Biopharma Secured Investments III Holdings Cayman LP (the "Pharmakon Loan Agreement"). The Pharmakon Loan Agreement provides for up to $55.0 million in term loans split into two tranches as follows: (i) the Tranche A Loans are $30.0 million in term loans, and (ii) the Tranche B Loans are up to $25.0 million in term loans. The Tranche A Loans were drawn on December 4, 2015. The Tranche B Loans were available to be drawn prior to December 4, 2016. No additional draw was taken.

The Tranche A Loans bear interest at a fixed rate equal to 9.50% per annum that is due and payable quarterly in arrears. During the first eight calendar quarters, 50% of the interest due and payable was added to the then outstanding principal.

In December 2015, the Company used the proceeds from the Pharmakon Loan Agreement to repay $4.9 million of bank debt to SVB. The issuance costs and debt discount have been netted against the borrowed funds on the balance sheet.

On October 23, 2018, the Company repaid the principal amount of the Tranche A Loan of $30.0 million and related accrued interest of $3.3 million. The Company incurred a $3.0 million loss in connection with the early extinguishment of the Pharmakon Loan Agreement which included a prepayment premium fee of $1.0 million and additional consideration related to the prepayment of $1.5 million. The debt balance as of December 31, 2017 was $32.5 million.

Bank Debt

In December 2015, the Company entered into a Second Amended and Restated Loan and Security Agreement with SVB, (the "SVB Loan Agreement"). Under the SVB Loan Agreement the Company may borrow, repay and reborrow under a revolving credit line, but not in excess of the maximum loan amount of $15.0 million, until December 4, 2018, when all outstanding principal and accrued interest becomes due and payable. Any principal amount outstanding under the SVB Loan Agreement shall bear interest at a floating rate per annum equal to the rate published by The Wall Street Journal as the "Prime Rate" plus 0.25%. The Company may borrow up to 80% of its eligible accounts receivable, up to the maximum of $15.0 million.

In August 2016, the Company obtained a $3.1 million standby letter of credit pursuant to the SVB Loan Agreement in connection with a lease for its San Francisco office.

In October 2018, the Company entered into the Third Amended and Restated Loan and Security Agreement with Silicon Valley Bank ("Third Amended and Restated SVB Loan Agreement"). This Agreement amends and restates the Second Amended and Restated Loan and Security Agreement between the Company and Silicon Valley Bank ("SVB") dated December 4, 2015, as amended by the First Loan Modification Agreement between the Company and SVB dated August 22, 2016.

Pursuant to the Third Amended and Restated SVB Loan Agreement, the Company obtained a term loan ("SVB Term Loan") for $35.0 million. Total proceeds from the SVB Term Loan were used to pay off the loan agreement with Biopharma Secured Investments III Holdings Cayman LP ("Pharmakon"), totaling $35.8 million. The Company will make interest-only payments through October 31, 2020, followed by 36 monthly payments of principal plus interest on the SVB Term Loan. Interest charged on the SVB Term Loan will be the greater of (a) a floating rate based on the "Prime Rate" published by The Wall Street Journal minus 0.75%, or (b) 4.25%.

Under the Third Amended and Restated SVB Loan Agreement, the Company may borrow, repay, and reborrow under a revolving credit line, but not in excess of the maximum loan amount of $25.0 million, which includes an $11.0 million standby letter of credit sublimit availability. In October 2018, a $6.9 million standby letter of credit was obtained in connection with a lease for the Company's San Francisco headquarters. Any principal amount outstanding under the Third Amended and Restated SVB Loan Agreement revolving credit line shall bear interest at an amount that is the greater of (a) a floating rate per annum equal to the rate published by The Wall Street Journal as the "Prime Rate" or (b) 5.00%. The Company may borrow up to 75% of eligible accounts receivable, up to the maximum of $25.0 million. As of December 31, 2018, the Company was eligible to borrow up to $1.7 million and no amount was outstanding under the revolving credit line.

The Third Amended and Restated Loan Agreement requires the Company to maintain a minimum consolidated liquidity ratio or minimum adjusted Earnings Before Interest, Tax, Depreciation, and Amortization during the term of the loan facility. In addition, the SVB Loan Agreement contains customary affirmative and negative covenants and events of default. The Company was in compliance with loan covenants as of December 31, 2018. The obligations under the Third Amended and Restated Loan Agreement are collateralized by substantially all assets of the Company.

California HealthCare Foundation Note

In November 2012, the Company entered into a Note Purchase Agreement and Promissory Note with the California HealthCare Foundation (the "CHCF Note"), through which the Company borrowed $1.5 million. The CHCF Note accrued simple interest of 2.0%. The accrued interest and the principal was to mature in November 2016. In partial consideration for the issuance of the CHCF Note, the Company issued warrants to purchase 22,807 shares of the Company's Series D convertible preferred stock.

In June 2015, the Company amended the CHCF Note to extend the maturity date to May 2018.

The CHCF Note was subordinate to other debt. The debt balance, net of debt discount, as of December 31 2017 was $1.5 million. In May 2018, the Company repaid the principal amount of $1.5 million and related $0.2 million in accrued interest on the CHCF Note.

Future minimum payments

Future minimum payments under the Third Amended and Restated Loan and Security Agreement with Silicon Valley Bank at December 31, 2018 are as follows (in thousands):

Year Ending December 31:	
2019	$ 1,662
2020	3,603
2021	12,983
2022	12,429
2023	9,934
Total	40,611
Less: Amount representing interest	(5,611)
Less: Amount representing debt issuance costs	(101)
Total carrying value	$ 34,899

The total carrying value of debt is classified as long-term on the Consolidated Balance Sheet as of December 31, 2018.

8. Income Taxes

On December 22, 2017, the 2017 Tax Cuts and Jobs Act ("Tax Act") was enacted into law and the new legislation contains several key tax provisions that affected the Company, including a one-time mandatory transition tax on accumulated foreign earnings and a reduction of the corporate income tax rate to 21% effective January 1, 2018, among others. The Company was required to recognize the effect of the tax law changes in the period of enactment, such as determining the transition tax and remeasuring its U.S. deferred tax assets and liabilities. In December 2017, the SEC staff issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act ("SAB 118"), which allowed the Company to record provisional amounts during a measurement period not to extend beyond one year of the enactment date. As a result, the Company previously provided a provisional estimate of the effect of the Tax Act in its financial statements. In the fourth quarter of 2018, the Company completed the analysis to determine the effect of the Tax Act and recorded immaterial adjustments as of December 31, 2018.

There was no provision for the years ended December 31, 2017 and 2016. The following table presents components of the Company's provision for income taxes as of December 31, 2018 (in thousands):

	Year Ended December 31, 2018
Current:	
Federal	$ —
State	—
Foreign	80
Total current tax expense	80
Deferred:	
Federal	—
State	—
Foreign	(36)
Total deferred tax benefit	(36)
Provision for income taxes	$ 44

The following table presents a reconciliation of the tax expense computed at the statutory federal rate and the Company's tax expense for the period presented (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Tax at statutory federal rate	(10,143)	(10,034)	$ (7,107)
Stock-based compensation	(8,562)	(7,634)	255
Meals and Entertainment	309	198	134
Other	149	(145)	782
Tax credits	(1,015)	(644)	(139)
2017 Tax Act	44	21,928	—
Change in valuation allowance	19,262	(3,669)	6,075
Provision for income taxes	$ 44	$ —	$ —

(1) Due to the Tax Act which was enacted in December 2017, the Company recognized the remeasurement of deferred taxes with an offset to valuation.

Deferred income taxes reflect the net effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

Significant components of the Company's deferred tax assets and liabilities are as follows (in thousands):

	December 31,	
	2018	2017
Deferred tax assets:		
Net operating loss carryforwards	$ 50,334	$ 35,338
Tax credit carryforwards	4,287	2,642
Allowances and other	11,694	6,682
Depreciation and amortization	(388)	(414)
Total deferred tax assets	65,927	44,248
Valuation allowance	(65,886)	(44,248)
Net deferred tax assets	$ 41	$ —

Due to the uncertainties surrounding the realization of deferred tax assets through future taxable income, the Company has provided a full valuation allowance against its U.S. deferred tax assets, and, therefore, no benefit has been recognized for the net operating loss carryforwards and other deferred tax assets. The U.S. valuation allowance increased by $21.7 million and decreased by $0.6 million for the years ended December 31, 2018 and December 31, 2017, respectively. The current year change in the U.S. valuation allowance is primarily related to the increase in net operating loss carryforwards generated during the year. The Company recorded an immaterial deferred tax asset related to the Company's foreign operations in the United Kingdom.

The valuation allowance for deferred tax assets consisted of the following activity for the years ended December 31, 2018, 2017 and 2016 (in thousands):

	Balance at beginning of year	Additions	Deductions	Balance at end of year
Year ended December 31, 2016	$ 38,565	$ 6,296	$ —	$ 44,861
Year ended December 31, 2017	44,861	—	613	44,248
Year ended December 31, 2018	$ 44,248	$ 21,638	$ —	$ 65,886

As of December 31, 2018, the Company had approximately $206.7 million of federal and $107.4 million of state net operating loss carryforwards available to offset future taxable income which expires in varying amounts beginning in 2027 and 2019, respectively.

As of December 31, 2018, the Company had tax credit carryforwards of approximately $3.7 million, and $2.4 million available to reduce future taxable income, if any, for both federal and state purposes, respectively. The federal tax credit carryforwards expire beginning in 2028 and the state tax credits can be carried forward indefinitely.

Section 382 of the Internal Revenue Code, and similar state provisions, limits the use of net operating loss and tax credit carryforwards in certain situations where equity transactions result in a change of ownership as defined by Internal Revenue Code Section 382. In the event the Company should experience an ownership change, as defined, utilization of its net operating loss carryforwards and tax credits could be limited.

A reconciliation of the Company's unrecognized tax benefit amount is as follows (in thousands):

	Year Ended December 31,		
	2018	2017	2016
Balance at beginning of year	$ 943	$ 616	$ 570
Additions for tax positions taken in current year	441	328	75
Increases in balance related to prior year tax positions	75	—	—
Decreases in balances related to prior year tax position	—	(1)	(29)
Balance at end of year	$ 1,459	$ 943	$ 616

The total amount of gross unrecognized tax benefits was $1.5 million, $0.9 million, and $0.6 million as of December 31 2018, 2017, and 2016 respectively, all of which , if recognized, would affect the effective tax rate. The Company does not anticipate the total amounts of unrecognized tax benefits will significantly increase or decrease in the next 12 months.

The Company's policy is to include interest and penalties related to unrecognized tax benefits within the provision for taxes. Management determined that no accrual for interest or penalties was required as of December 31, 2018 and 2017.

The Company files income tax returns in the U.S. and UK jurisdictions. All of the Company's tax years are open to examination by the US federal, state and foreign tax authorities.

9. Stockholders' Equity

Common stock

The Company's amended and restated certificate of incorporation dated October 25, 2016, authorizes the Company to issue 100,000,000 shares of common stock with a par value of $0.001 per share and 5,000,000 shares of preferred stock with a par value of $0.001 per share. The holders of common stock are entitled to receive dividends whenever funds and assets are legally available and when declared by the board of directors, subject to the prior rights of holders of all series of convertible preferred stock outstanding. No dividends were declared through December 31, 2018.

The Company had reserved shares of common stock for issuance as follows:

	December 31,	
	2018	2017
Options issued and outstanding	2,094,137	2,601,181
Unvested restricted stock units	547,891	468,426
Common stock warrants issued and outstanding	4,857	4,857
Shares available for grant under future stock plans	5,607,014	4,650,669
Total	8,253,899	7,725,133

10. Stock Incentive Plans

2006 Plan

In October 2006, the Company adopted the 2006 Equity Incentive Plan, as amended, (the "2006 Plan"). The Plan provided for the granting of stock options to employees and non-employees of the Company. Options granted under the Plan were either incentive stock options or nonqualified stock options. Incentive stock options ("ISO") were granted only to employees (including officers and directors who are also employees). Nonqualified stock options ("NSO") may be granted to employees and non-employees. The board of directors had the authority to determine to whom options will be granted, the number of options, the term and the exercise price.

Options under the Plan were granted for periods of up to ten years and at the fair value of the shares on the date of grant as determined by the board of directors. In general, options become exercisable at a rate of 25% after the first anniversary of the grant and then monthly vesting for an additional three years from date of grant. The term for options is no longer than five years for ISOs for

which the grantee owns greater than 10% of the voting power of all classes of stock and no longer than ten years for all other options. The Company issues new shares upon the exercise of options.

2016 Plan

In October 2016, the Company adopted the 2016 Equity Incentive Plan, (the "2016 Plan"). The 2016 Plan was subsequently approved by the Company's stockholders and became effective on October 19, 2016, immediately before the effective date of the IPO. Following the effectiveness of the 2016 Plan, no additional options will be granted under the 2006 Plan. In addition, to the extent that any awards outstanding or subject to vesting restrictions under the 2006 Plan are subsequently forfeited or terminated for any reason before being exercised or settled, the shares of common stock reserved for issuance pursuant to such awards as of the closing of the IPO will become available for issuance under the 2016 Plan. The remaining shares available for grant under the 2006 Plan became available for issuance under the 2016 Plan upon the closing of the IPO. On the first day of each year, the 2016 Plan authorizes an annual increase of the least of 3,865,000 shares, 5% of outstanding shares on the last day of the immediately preceding fiscal year or an amount as determined by the Company's Board of Directors. As of December 31, 2018, the Company has reserved 6,140,831 shares of common stock for issuance under the 2016 Plan.

Pursuant to the 2016 Plan, stock options, restricted shares, stock units, including restricted stock units and stock appreciation rights may be granted to employees, consultants, and outside directors of the Company. Options granted may be either ISOs or NSOs.

Stock options are governed by stock option agreements between the Company and recipients of stock options. ISOs and NSOs may be granted under the 2016 Plan at an exercise price of not less than 100% of the fair market value of the common stock on the date of grant, determined by the Compensation Committee of the Board of Directors. Options become exercisable and expire as determined by the Compensation Committee, provided that the term of ISOs may not exceed ten years from the date of grant.

Employee Stock Purchase Program ("ESPP")

In October 2016, the Company's Board of Directors and stockholders approved the Employee Stock Purchase Plan (the "ESPP"). Under the ESPP, the Company initially reserved 483,031 shares of common stock for issuance as of its effective date of October 19, 2016. On the first day of each calendar year, the number of shares reserved increases by the least of 966,062 shares, 1.5% of the shares of the Company's common stock outstanding on the last day of the immediately preceding fiscal year, or an amount as determined by the Company's Board of Directors. The ESPP allows eligible employees to purchase shares of the Company's common stock at a discount through payroll deductions of up to 15% of their eligible compensation, subject to any plan limitations. The ESPP provides for twelve-month offering periods that each contain two six-month purchase periods. At the end of each purchase period, employees are able to purchase shares at 85% of the lower of the fair market value of the Company's common stock on the first trading day of the offering period or on the last day of the purchase period.

As of December 31, 2018, 276,058 shares of common stock have been issued to employees participating in the ESPP and 889,722 shares were available for issuance under the ESPP.

The Company used the following assumptions to estimate the fair value of the ESPP offered for the year ended December 31, 2018: expected term of 0.5 – 1.0 years, volatility of 41.46% - 44.55%, risk-free interest rate of 2.19% - 2.64% and expected dividend yield of zero.

Equity Incentive Plan Activity

A summary of share-based awards available for grant under the 2016 Plan is as follows:

	Shares Available for Grant
Balance at December 31, 2015	**331,938**
Additional options authorized	3,865,000
Awards granted	(466,914)
Awards forfeited	13,013
Balance at December 31, 2016	**3,743,037**
Additional awards authorized	1,106,966
Awards granted	(837,436)
Awards forfeited	21,585
Balance at December 31, 2017	**4,034,152**
Additional awards authorized	1,168,865
Awards granted	(666,913)
Awards forfeited	124,478
Awards withheld for tax purposes	56,710
Balance at December 31, 2018	**4,717,292**

The following table summarizes stock option activity under the 2006 and 2016 Plans, including grants to nonemployees:

		Options Outstanding		
	Options Outstanding	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Life (years)	Aggregate Intrinsic Value (in thousands)
Balance at December 31, 2015	**2,685,913**	**$ 4.81**	7.63	$ 11,589
Options granted	361,385	$ 15.65		
Options exercised	(57,067)	$ 2.33		
Options forfeited	(13,013)	$ 6.92		
Balances at December 31, 2016	**2,977,218**	**$ 6.16**	6.93	$ 70,979
Options granted	465,271	$ 36.76		
Options exercised	(827,556)	$ 4.11		
Options forfeited	(13,752)	$ 14.43		
Balance at December 31, 2017	**2,601,181**	**$ 12.24**	7.17	113,958
Options granted	366,928	$ 68.32		
Options exercised	(798,424)	$ 7.19		
Options forfeited	(75,548)	$ 34.30		
Balance at December 31, 2018	**2,094,137**	**$ 23.20**	7.02	97,976
Options exercisable – December 31, 2018	1,278,367	**$ 10.27**	6.18	75,695
Options vested and expected to vest – December 31, 2018	2,050,504	**$ 22.60**	6.99	97,085

The aggregate intrinsic values of options outstanding, exercisable, vested and expected to vest were calculated as the difference between the exercise price of the options and the closing price of the Company's common stock.

During the years ended December 31, 2018, 2017 and 2016, the Company granted options with a weighted-average grant date fair value of $32.38, $18.69 and $8.76 per share, respectively.

The aggregate intrinsic value of options exercised was $52.4 million, $32.5 million and $0.7 million for the years ended December 31, 2018, 2017 and 2016, respectively. The total estimated grant date fair value of options vested during the period was $5.3 million, $2.4 million and $1.8 million for the years ended December 31, 2018, 2017 and 2016, respectively.

The fair value of non-vested restricted stock units ("RSUs") is based on the Company's closing stock price on the date of grant. A summary for the year ended December 31, 2018, is as follows:

	Shares Underlying RSUs	Weighted Average Grant Date Fair Value	Weighted Remaining Vesting Period (in years)	Aggregate Intrinsic Value (in thousands)
Non-vested as of December 31, 2017	468,426	$ 36.96	2.54	$ 26,255
Granted	299,985	$ 71.54		
Vested and released	(114,880)	$ 31.53		
Forfeited	(105,640)	$ 38.81		
Non-vested as of December 31, 2018	547,891	$ 56.62	2.45	$ 38,067

11. Stock-Based Compensation

Employee Stock-Based Compensation

The Company estimates the fair value of stock options using the Black-Scholes option valuation model. The fair value of employee stock options is being amortized on a straight-line basis over the requisite service period of the awards. The fair value of employee stock options was estimated using the weighted average assumptions below. Each of these inputs is subjective and its determination generally requires significant judgment.

	Year Ended December 31		
	2018	2017	2016
Expected term (in years)	6.1	6.1	6.1
Expected volatility	45.7%	51.9%	60.0%
Risk-free interest rate	2.75%	2.07%	1.42%
Dividend yield	0.0%	0.0%	0.0%

Fair Value of Common Stock— Prior to the completion of the Company's IPO, the fair value of the shares of the Company's common stock underlying the stock options had historically been determined by the Company's board of directors. Because there had been no public market for the Company's common stock, its board of directors determined the fair value of the Company's common stock at the time of grant of the option by considering a number of objective and subjective factors, including valuations of comparable companies, sales of the Company's convertible preferred stock, the Company's operating and financial performance, the lack of liquidity of the Company's capital stock, and the general and industry-specific economic outlooks. For stock options granted after the completion of the IPO, the Company's Board of Directors determined the fair value of each share of underlying common stock based on the closing price of the Company's common stock as reported on the date of grant.

Expected Term—The expected term represents the period that the share-based awards are expected to be outstanding. As the Company has very limited historical information to develop reasonable expectations about future exercise patterns and post-vesting employment termination behavior for its stock-option grants the Company has elected to use the "simplified method" as prescribed by authoritative guidance to compute expected term.

Expected Volatility—Since the Company does not have sufficient trading history for its common stock, the expected volatility was estimated based on the average volatility for comparable publicly traded companies over a period equal to the expected term of the stock option grants. When selecting comparable publicly traded companies in a similar industry on which it has based its expected stock price volatility, the Company selected companies with comparable characteristics to it, including enterprise value, risk profiles, position within the industry, and with historical share price information sufficient to meet the expected life of the stock-based awards. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

Risk-Free Interest Rate—The risk-free interest rate is based on the U.S. Treasury yield curve in effect on the date of grant for zero coupon U.S. Treasury notes with maturities approximately equal to expected term of the option award.

Expected Dividend Yield—The Company has never paid dividends on its common stock and has no plans to pay dividends on its common stock. Therefore, the Company used an expected dividend yield of zero.

In addition to the assumptions used in the Black-Scholes option-pricing model, the Company also estimates a forfeiture rate to calculate the stock-based compensation for the Company's equity awards. The Company will continue to use judgment in evaluating the expected volatility, expected terms and forfeiture rates utilized for the Company's stock-based compensation calculations on a prospective basis.

The following table summarizes the total stock-based compensation expense for options, RSUs and ESPP included in the consolidated statements of operations for all periods presented (in thousands):

	Year Ended December 31		
	2018	2017	2016
Cost of revenue	$ 193	$ 163	$ 17
Research and development	3,057	1,733	203
Selling, general and administrative	13,079	8,227	1,651
Total stock-based compensation expense	$ 16,329	$ 10,123	$ 1,871

As of December 31, 2018, there was total unamortized compensation costs of $14.1 million, net of estimated forfeitures, related to unvested stock options, which the Company expects to recognize over a period of approximately 2.3 years, $21.8 million, net of estimated forfeitures, related to unrecognized RSU expense, which the Company expects to recognize over a period of 2.5 years, and $1.3 million unrecognized ESPP expense, which the Company will recognize over 0.9 years.

Non-Employee Stock-Based Compensation

Stock based compensation expense related to stock options granted to nonemployees is recognized as the stock options are earned. The measurement of stock based compensation for non-employees is subject to periodic adjustment as the underlying equity instruments vest, and the related compensation expense is based on the estimated fair value of the equity instruments using the Black Scholes option pricing model. The Company believes that the estimated fair value of the stock options is more readily measurable than the fair value of the services received. Such expense was not material for the years ended December 31, 2018, 2017 and 2016.

12. Net Loss Per Common Share

As the Company had net losses for the years ended December 31, 2018, 2017 and 2016, all potential common shares were determined to be anti-dilutive. The following table sets forth the computation of the basic and diluted net loss per share during the years ended December 31, 2018, 2017 and 2016 (in thousands, except share and per share data):

	Year Ended December 31,		
	2018	2017	2016
Numerator:			
Net loss	$ (48,280)	$ (29,420)	$ (20,903)
Denominator:			
Weighted-average shares used to compute net loss per common share, basic and diluted	23,885,858	22,627,327	5,285,847
Net loss per common share, basic and diluted	$ (2.02)	$ (1.30)	$ (3.95)

The following outstanding shares of potentially dilutive securities have been excluded from diluted net loss per common share for the years ended December 31, 2018, 2017 and 2016 because their inclusion would be anti-dilutive:

	Year Ended December 31,		
	2018	2017	2016
Options to purchase common stock	2,094,137	2,601,181	2,977,218
RSUs issued and unvested	547,891	468,426	105,529
Warrants to purchase common stock	4,857	4,857	217,245
Total	2,646,885	3,074,464	3,299,992

13. Selected Quarterly Financial Data (unaudited)

The following table presents selected unaudited financial data for each of the eight quarters in the two-year period ended December 31, 2018. The Company believes this information reflects all recurring adjustments necessary to fairly state this information when read in conjunction with the Company's financial statements and the related notes. Net loss per common share, basic and diluted, for the four quarters of each fiscal year may not sum to the total for the fiscal year because of the different number of shares outstanding during each period. The results of operations for any quarter are not necessarily indicative of the results to be expected for any future period (in thousands of dollars, except for share and per share data):

Quarter Ended	March 31	June 30	September 30	December 31
2018:				
Total revenues	$ 30,565	$ 35,469	$ 38,104	$ 43,155
Gross profit	21,954	25,979	28,155	32,626
Net loss	(11,117)	(12,206)	(10,244)	(14,713)
Net loss per common share, basic and diluted	$ (0.47)	$ (0.51)	$ (0.43)	$ (0.61)
2017:				
Total revenues	$ 21,437	$ 23,854	$ 25,035	$ 28,183
Gross profit	15,100	17,110	18,115	20,476
Net loss	(5,303)	(6,444)	(6,524)	(11,149)
Net loss per common share, basic and diluted	$ (0.24)	$ (0.29)	$ (0.29)	$ (0.48)

14. Subsequent Events

Lincolnshire Lease

On February 22, 2019, the Company entered into the Third Amendment to the Sublease with Lincolnshire Property Holdings, LLC ("Third Amended Lincolnshire Lease"), to extend the term of its existing leased facility in Lincolnshire, Illinois.

Pursuant to the Third Amended Lincolnshire Lease, the Company has the right to extend the Sublease for two additional terms and each term shall be for two years. The first additional term begins on November 1, 2019, and was exercised upon the execution of the agreement. In addition, the landlord will provide a tenant improvement allowance of up to $60,000. Base annual rent for the first extension term is estimated to be approximately $700,000 per year.

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

None.

Item 9A. Controls and Procedures.

Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934, as amended (the "Exchange Act") is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our chief executive officer ("CEO") (principal executive officer) and chief financial officer ("CFO") (principal financial officer), as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As required by SEC Rule 13a-15(b), we carried out an evaluation, under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, of the effectiveness of our disclosure controls and procedures as of December 31, 2018. Our CEO and CFO concluded that our disclosure controls and procedures were not effective as of December 31, 2018 because of the material weaknesses in our internal control over financial reporting described below. In light of the material weaknesses described below, the Company performed additional analysis and other post-closing procedures to determine its consolidated financial statements are prepared in accordance with generally accepted accounting principles. Accordingly, management concluded that the financial statements included in this Annual Report on Form 10-K fairly present in all material respects the Company's financial condition, results of operations and cash flow for the periods presented.

Management's Annual Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) of the Exchange Act. Our management has assessed the effectiveness of our internal control over financial reporting as of December 31, 2018 using the criteria established in "Internal Control—Integrated Framework" (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

In connection with the preparation of our consolidated financial statements as of and for the year ended December 31, 2018, we identified material weaknesses in our internal control over financial reporting. The material weaknesses we identified were as follows:

We did not design or maintain an effective control environment commensurate with our financial reporting requirements. Given the rapid growth in the size and complexity of the business, we failed to maintain a sufficient number of professionals with an appropriate level of accounting and internal control knowledge, training and experience to appropriately analyze, record and disclose accounting matters timely and accurately. This material weakness did not result in any adjustments to our annual or interim financial statements. This material weakness contributed to the additional material weaknesses below.

We did not effectively execute our controls over our financial statement close process, to ensure the prevention or detection of a misstatement that could be material. Specifically, we concluded we did not have an effective business performance review control used to monitor the completeness and accuracy of the financial results and to identify potential failures in lower level controls. This control did not detect errors in a timely manner that could have been material to our interim or annual financial statements. Additionally, we did not have appropriate control over the review of journal entries to ensure that they were properly supported and recorded completely and accurately. This material weakness did not result in any adjustments to our annual or interim financial statements.

We did not maintain effective controls with respect to the review of the accounting for revenue and related accounts receivable, including maintaining effective controls to prevent or detect errors in the assessment of bad debt and revenue reserves. Specifically, we did not detect formula errors within the year-end contractual allowance analysis which resulted in an immaterial misstatement to revenue, accounts receivable and bad debt expense.

Additionally, these material weaknesses could result in a misstatement of any account balances or disclosures that would result in a material misstatement to the annual or interim consolidated financial statements that would not be prevented or detected.

Because of these material weaknesses, management concluded that the Company did not maintain effective internal control over financial reporting as of December 31, 2018.

The effectiveness of our internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included in Part IV, Item 15 of this Annual Report.

Remediation Plan and Other Information

In response to the identified material weaknesses, our management, with oversight from our audit committee, is in the process of designing and implementing a plan to remediate the material weaknesses identified. These remediation efforts, summarized below, are intended to remediate the material weaknesses prior to December 31, 2019, however, there can be no assurance that our efforts will be successful and additional procedures may be required.

- Increase the depth and experience of our Finance organization by increasing the number of staff, expanding our technical experience in accounting, auditing and reporting matters and implementing appropriate training programs for staff, manager and executive levels.

- Hire an Internal Audit Director that will be focused on the development, maintenance and monitoring of our overall control environment and system of internal controls over financial reporting.

- Improve the design and effectiveness of key controls for our order to cash and procure to pay transaction cycles, automated and manual journal entries and the accuracy and completeness of key reports used in the preparation of our consolidated financial statements.

We believe the remediation steps outlined above will improve the effectiveness of our internal control over financial reporting and be completed in 2019. However, the material weaknesses will not be considered remediated until a sustained period of time has passed to allow management to test the design and operational effectiveness of the corrective actions.

We believe that the foregoing actions will support the improvement of our internal control over financial reporting, and through our efforts to identify, design and implement the necessary control activities, will be effective in remediating the material weaknesses described above. We will devote significant time and attention to these remediation efforts. As we evaluate and work to improve our internal control over financial reporting, management may determine to take additional measures to address the material weaknesses or determine to modify the remediation plan described above. Until the remediation steps set forth above, including the efforts to implement the necessary control activities we identify, are fully completed, the material weaknesses described above will continue to exist.

Changes in Internal Control Over Financial Reporting

There have been no changes in our internal control over financial reporting during the quarter ended December 31, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act). Our management conducted an assessment of the effectiveness of our internal control over financial reporting based on the criteria established in "Internal Control - Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on that assessment, our management has concluded that our internal control over financial reporting was effective as of December 31, 2018. The effectiveness of the Company's internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears herein.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item is incorporated by reference from our definitive Proxy Statement to be filed with the SEC in connection with our 2019 Annual Meeting of Stockholders within 120 days after the end of the fiscal year ended December 31, 2018.

Item 11. Executive Compensation.

The information required by this item is incorporated by reference from our definitive Proxy Statement to be filed with the SEC in connection with our 2019 Annual Meeting of Stockholders within 120 days after the end of the fiscal year ended December 31, 2018.

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

The information required by this item is incorporated by reference from our definitive Proxy Statement to be filed with the SEC in connection with our 2019 Annual Meeting of Stockholders within 120 days after the end of the fiscal year ended December 31, 2018.

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

The information required by this item is incorporated by reference from our definitive Proxy Statement to be filed with the SEC in connection with our 2019 Annual Meeting of Stockholders within 120 days after the end of the fiscal year ended December 31, 2018.

Item 14. Principal Accounting Fees and Services.

The information required by this item is incorporated by reference from our definitive Proxy Statement to be filed with the SEC in connection with our 2019 Annual Meeting of Stockholders within 120 days after the end of the fiscal year ended December 31, 2018.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) List the following documents filed as a part of this Annual Report on Form 10-K:

(1) All financial statements;

(2) Those financial statement schedules required to be filed by Item 8 of this form, and by paragraph (b) below. All financial statement schedules are omitted because they are not applicable or the amounts are immaterial or the required information is presented in the consolidated financial statements and notes thereto in Part II, Item 8 above.

(3) Those exhibits required by Item 601 of Regulation S-K (§ 229.601 of this chapter) and by paragraph (b) below. Identify in the list each management contract or compensatory plan or arrangement required to be filed as an exhibit to this form pursuant to Item 15(b) of this report.

(b) Registrants shall file, as exhibits to this form, the exhibits required by Item 601 of Regulation S-K (§ 229.601 of this chapter).

(c) Registrants shall file, as financial statement schedules to this form, the financial statements required by Regulation S-X (17 CFR 210) which are excluded from the annual report to shareholders by Rule 14a-3(b) including (1) separate financial statements of subsidiaries not consolidated and fifty percent or less owned persons; (2) separate financial statements of affiliates whose securities are pledged as collateral; and (3) schedules.

Exhibit Index

Exhibit Number	Exhibit Title	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation of the Registrant.	8-K	001-37918	3.1	October 26, 2016
3.2	Amended and Restated Bylaws of the Registrant.	8-K	001-37918	3.2	October 26, 2016
4.1	Specimen Common Stock Certificate of the Registrant.	S-1	333-213773	4.1	September 23, 2016
4.2	Amended and Restated Investors' Rights Agreement dated May 16, 2014 by and among the Registrant and certain stockholders.	S-1/A	333-213773	4.2	October 7, 2016
4.8	Warrant to Purchase Stock issued to Life Science Loans, LLC dated as of June 3, 2014.	S-1	333-213773	4.8	September 23, 2016
10.1+	Form of Indemnification Agreement for directors and executive officers.	S-1	333-213773	10.1	September 23, 2016
10.2+	2006 Stock Plan, as amended, and Form of Option Agreement thereunder.	S-1	333-213773	10.2	September 23, 2016
10.3+	2016 Equity Incentive Plan and related form agreements.	S-1/A	333-213773	10.3	October 7, 2016
10.4+	2016 Employee Stock Purchase Plan and related form agreements.	S-1/A	333-213773	10.4	October 7, 2016
10.5+	Executive Incentive Compensation Plan.	S-1/A	333-213773	10.5	October 7, 2016
10.6	Manufacturing Services Agreement dated March 1, 2009 between the Registrant and Jabil Circuit, Inc.	S-1	333-213773	10.6	September 23, 2016
10.7	Memorandum of Understanding dated February 16, 2015 between the Registrant and Jabil Circuit, Inc.	S-1	333-213773	10.7	September 23, 2016
10.8	Warland Business Park Lease dated April 20, 2015 between the Registrant and Warland Investments Company.	S-1	333-213773	10.8	September 23, 2016
10.9	Office Lease dated April 30, 2008 between the Registrant and 650 Townsend Associates, LLC.	S-1/A	333-213773	10.9	October 7, 2016
10.10	First Amendment to Lease dated February 26, 2010 between the Registrant and 650 Townsend Associates, LLC.	S-1	333-213773	10.10	September 23, 2016
10.11	Second Amendment to Lease dated December 19, 2011 between the Registrant and 650 Townsend Associates, LLC.	S-1	333-213773	10.11	September 23, 2016
10.12	Third Amendment to Lease dated January 8, 2014 between the Registrant and Big Dog Holdings, LLC, as successor in interest to 650 Townsend Associates LLC.	S-1	333-213773	10.12	September 23, 2016
10.13	Fourth Amendment to Lease dated April 22, 2015 between the Registrant and Big Dog Holdings, LLC, as successor in interest to 650 Townsend Associates LLC.	S-1	333-213773	10.13	September 23, 2016
10.14	Fifth Amendment to Lease dated November 20, 2015 between the Registrant and Big Dog Holdings, LLC, as successor in interest to 650 Townsend Associates LLC.	S-1	333-213773	10.14	September 23, 2016
10.15	Sixth Amendment to Lease dated August 10, 2016 between the Registrant and Big Dog Holdings, LLC, as successor in interest to 650 Townsend Associates LLC.	S-1	333-213773	10.15	September 23, 2016
10.16	Sublease dated October 29, 2009 between the Registrant and Freedomroads, LLC.	S-1/A	333-213773	10.16	October 7, 2016
10.17	First Amendment to Sublease dated June 1, 2010 between the Registrant and Freedomroads, LLC.	S-1/A	333-213773	10.17	October 7, 2016
10.18	Second Amendment to Sublease dated September 24, 2013 between the Registrant, Freedomroads, LLC and FRHP Lincolnshire, LLC.	S-1	333-213773	10.18	September 23, 2016

Exhibit Index

Exhibit Number	Exhibit Title	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
10.19	Sublease dated April 15, 2014 between the Registrant and Lone Star R.S. Platou, Inc.	S-1	333-213773	10.19	September 23, 2016
10.20±	Services Agreement dated December 24, 2013 between the Registrant and XIFIN, Inc.	S-1	333-213773	10.20	September 23, 2016
10.21	Second Amended and Restated Loan and Security Agreement dated December 4, 2015 between the Registrant and Silicon Valley Bank.	S-1/A	333-213773	10.21	October 7, 2016
10.22	Loan Agreement dated December 4, 2015 between the Registrant and Biopharma Secured Investments III Holdings Cayman LP.	S-1	333-213773	10.22	September 23, 2016
10.23	Guaranty and Security Agreement dated December 4, 2015 by the Registrant and each other grantor from time to time party thereto in favor of Biopharma Secured Investments III Holdings Cayman LP.	S-1	333-213773	10.23	September 23, 2016
10.24	Note Purchase Agreement dated November 16, 2012, as amended, by and between the Registrant and California HealthCare Foundation, exhibits related thereto and related Promissory Note.	S-1/A	333-213773	10.24	October 7, 2016
10.25+	Employment Letter to Kevin M. King dated July 23, 2012 between the Registrant and Kevin M. King.	S-1	333-213773	10.25	September 23, 2016
10.26+	Employment Letter to David A. Vort dated November 22, 2013 between the Registrant and David A. Vort.	S-1	333-213773	10.26	September 23, 2016
10.27+	Employment Letter to Derrick Sung dated March 24, 2015 between the Registrant and Derrick Sung.	S-1	333-213773	10.27	September 23, 2016
10.28+	Employment Letter to Matthew C. Garrett dated December 2, 2012 between the Registrant and Matthew C. Garrett.	S-1	333-213773	10.28	September 23, 2016
10.29	Form of Change of Control and Severance Agreement to be effective upon the closing of the offering.	10-Q	333-213773	10.29	November 14, 2017
10.30	Office Lease (Suite 500) dated August 9, 2016 between the Registrant and Big Dog Holdings, LLC.	S-1	333-213773	10.30	September 23, 2016
10.31	Note and Warrant Purchase Agreement dated November 1, 2012, by and among the Registrant and the persons and entities listed on the Schedule of Investors attached thereto as Exhibit A and exhibits related thereto.	S-1/A	333-213773	10.31	October 7, 2016
10.32	Office Lease dated May 1, 2017 between the Registrant and Radler Limited Partnership.	10-Q	333-213773	10.32	August 7, 2017
10.33	Employment Letter to Karim Karti dated June 12, 2018 between the Registrant and Karim Karti.	10-Q	333-213773	10.33	August 3, 2018
10.34	First Amendment to Lease dated June 5, 2018 between the Registrant and Warland Investments Company.	10-Q	333-213773	10.34	August 3, 2018
10.35	Office Lease dated October 4, 2018 between the Registrant and Big Dog Holdings LLC.				
10.36	Third Amended and Restated Loan and Security Agreement, dated as of October 23, 2018, between Silicon Valley Bank, a California corporation, and iRhythm Technologies, Inc., a Delaware corporation.	8-K	333-213773	10.1	October 29, 2018
21.1	List of Subsidiaries of Registrant.	S-1	333-213773	21.1	September 23, 2016
23.1	Consent of Independent Registered Public Accounting Firm				
31.1	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				

Exhibit Index

Exhibit Number	Exhibit Title	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
32.1†	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS	XBRL Instance Document				
101.SCH	XBRL Taxonomy Extension Schema Document				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document				

† The certifications attached as Exhibit 32.1 and 32.2 that accompany this Annual Report on Form 10-K, are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of iRhythm Technologies, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Annual Report on Form 10-K, irrespective of any general incorporation language contained in such filing.

+ Indicates management contract or compensatory plan.

± Confidential treatment has been requested for portions of this exhibit. These portions have been omitted and have been filed separately with the Securities and Exchange Commission.

SIGNATURES

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

Company Name

Date: March 4, 2019

By: /s/ Kevin M. King

Kevin M. King
President and Chief Executive Officer
(Principal Executive Officer)

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

Name	Title	Date
/s/ Kevin M. King Kevin M. King	President, Chief Executive Officer and Director (Principal Executive Officer)	March 4, 2019
/s/ Matthew C. Garrett Matthew C. Garrett	Chief Financial Officer (Principal Financial Officer)	March 4, 2019
/s/ Bruce G. Bodaken Bruce G. Bodaken	Director	March 4, 2019
/s/ Ralph Snyderman M.D. Ralph Snyderman M.D.	Director	March 4, 2019
/s/ C. Noel Bairey Merz, M.D. C. Noel Bairey Merz, M.D.	Director	March 4, 2019
/s/ Mark J. Rubash Mark J. Rubash	Director	March 4, 2019
/s/ Raymond W. Scott Raymond W. Scott	Director	March 4, 2019
/s/ Abhijit Y. Talwalkar Abhijit Y. Talwalkar	Director and Chairman of the Board	March 4, 2019

Exhibit 10.35

OFFICE LEASE
(SUITE 500 WEST & SUITE 600 WEST)

650 TOWNSEND STREET
SAN FRANCISCO, CALIFORNIA

LANDLORD:

BIG DOG HOLDINGS LLC

TENANT:

IRHYTHM TECHNOLOGIES, INC.

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OFFICE LEASE
(Suite 500 West & Suite 600 West)

650 TOWNSEND STREET
San Francisco, California

BASIC LEASE INFORMATION

Lease Date:	October 4, 2018
Landlord	Big Dog Holdings LLC, a Delaware limited liability company
Tenant:	iRhythm Technologies, Inc., a Delaware corporation
Premises:	The following portion of the Building, consisting of the all tenant occupyable space on the west side of the fifth (5th) and sixth (6th) floors of the Building commonly known as Suites 500 West and 600 West consisting of 117,560 RSF (the "**Premises**"), such portion being shown on the floor plan attached to this Lease as Exhibit A.
Term:	Commencing on the Commencement Date and expiring on the Expiration Date, subject to the Extension Option as more particularly described in Exhibit F.
Commencement Date:	The Commencement Date shall be the later of (i) the date of delivery of possession of the Premises to Tenant in the condition required by this Lease, and (ii) April 1, 2019
Rent Commencement Date:	The Rent Commencement Date shall be one hundred and twenty (120) days after the Commencement Date, and is estimated to be August 1, 2019.
Expiration Date:	The Term shall expire on the later of (i) August 31, 2031, and (ii) the last day of the month in which the twelfth (12th) annual anniversary of the Rent Commencement Date occurs (provided, however, if the Rent Commencement Date is the first day of the month then, for purposes of this clause (ii), the Expiration Date shall be the last day of the calendar month immediately prior to the twelfth (12th) annual anniversary of the Rent Commencement Date.

Base Rent/RSF:	The industrial gross Base Annual Rent will be $9,992,600.00 dollars, based on $85.00 per rentable square foot, per annum, with three percent (3%) annual increases commencing on the first anniversary of the Rent Commencement Date.
Prepaid Base Rent Amount:	$0
Base Year:	2019
Base Tax Year:	2019
Project Square Footage:	686,642 RSF
Tenant's Percentage Share:	17.1210%
Permitted Use:	General office, executive and administrative use and, subject to the limitations provided in Article 7, any other use ancillary thereto permitted by law which is consistent with an Owner Occupied First Class Office Building.
Security Deposit:	Tenant shall provide a Security Deposit in the form of an irrevocable Letter of Credit in the amount Six Million Nine Hundred Twenty Three Thousand Five Hundred Seventy Seven Dollars and Ninety Two Cents ($6,923,577.92).
Parking Spaces:	64 parking spaces on the roof level of the Parking Facility in accordance with Article 30.
Tenant's Address:	650 Townsend San Francisco, CA 94103 Attn: Chief Financial Officer And to: 2 Marriott Drive Lincolnshire, IL 60069 Attn.: Legal Department
Landlord's Address for Notices:	Big Dog Holdings LLC c/o Cushman & Wakefield 650 Townsend Street, Suite 220 San Francisco, CA 94103 With a copy to:

	Big Dog Holdings LLC c/o Zynga Inc. 699 Eighth Street San Francisco, CA 94103 Attn: VP, Finance
Landlord's Address for Payments:	Big Dog Holdings LLC c/o Cushman & Wakefield 650 Townsend Street, Suite 220 San Francisco, CA 94103
Landlord's Broker:	Jones Lang LaSalle, Christopher Roeder
Tenant's Broker:	None

Exhibits:

OFFICE LEASE

THIS LEASE ("Lease") is made and entered into by and between Landlord and Tenant as of the Lease Date.

Landlord and Tenant hereby agree as follows:

1. Definitions.

1.1 Terms Defined. The following terms have the meanings set forth below. Certain other terms have the meanings set forth elsewhere in this Lease.

Alterations: Alterations, additions or other improvements to the Premises made by or on behalf of Tenant.

Anti-Terrorism Law: Any Applicable Laws relating to terrorism, anti-terrorism, money-laundering or anti-money laundering activities, including without limitation the United States Bank Secrecy Act, the United States Money Laundering Control Act of 1986, Executive Order No. 13224, and Title 3 of the USA Patriot Act, and any regulations promulgated under any of them.

Applicable Laws: All applicable laws, statutes, ordinances, orders, judgments, decrees, regulations, permit conditions, and requirements of all courts and all federal, state, county, municipal or other governmental or quasi-governmental authorities, departments, commissions, agencies and boards now or hereafter in effect, including, but not limited to, the Americans With Disabilities Act (42 U.S.C. § 12101, *etseq.)* and Title 24 of the California Code of Regulations and all regulations and guidelines promulgated thereunder.

Bankruptcy Code: Bankruptcy Code shall mean the United States Bankruptcy Code and any state or foreign law relating to bankruptcy, insolvency, reorganization or relief of debtors.

Base Operating Expenses: The Operating Expenses allocable to the Base Year.

Base Rent Adjustment Date: The date that is the first day of the month that is the thirteenth (13th) month following the Rent Commencement Date.

Base Tax Expenses: The Tax Expenses allocable to the Base Tax Year,

including any reduction in Tax Expenses obtained by Landlord after the Lease Date as a result of a commonly called Proposition 8 application.

Building: The six- story office building located at the Project, commonly known as Townsend Center, with an address of 650 Townsend Street and 699 Eighth Street, including related Common Areas and the Parking Facility.

Building Holidays: New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, the day after Thanksgiving Day, Christmas Day and any other holidays generally recognized in the State of California.

Building Standard Hours: 8:00 a.m. to 6:00 p.m. on Business Days.

Building Systems: The life-safety, electrical, mechanical, HVAC, plumbing, fire-protection, telecommunications, or other utility systems serving the Premises, the Building, or the Project, as applicable.

Business Day: All calendar days except Saturdays, Sundays, and Building Holidays.

Casualty: Fire, earthquake, flood, explosion, the elements, riot or any other event of a sudden, unexpected, or unusual nature.

Claims: Any and all obligations, losses, claims, actions (including remedial or enforcement actions of any kind and administrative or judicial proceedings, suits, orders or judgments), causes of action, liabilities, penalties, damages, costs and expenses (including reasonable attorneys' and consultants' fees and expenses).

Common Areas: Those areas of the Project which are for the nonexclusive use of occupants of the Project, and their agents, employees, customers, invitees and licensees, and other members of the public. Common Areas do not include the exterior windows and walls and the roof of the Project, or any space in the Project (including in the Premises) used for common shafts, stacks, pipes, conduits, ducts, electrical or other utilities, telecommunication systems, or other installations for Building Systems.

Comparable Buildings: Other Class A office buildings in the South of Market area of San Francisco, California, that are comparable in terms of age, size, location, quality of construction and quality of common area improvements to the Building.

Control: The ownership, directly or indirectly, of more than fifty percent (50%) of the outstanding voting securities of, or possession of more than fifty percent (50%) of the voting interest in an entity.

Deposit Amount: The amount of the Security Deposit stated in the Basic Lease Information

Designated FF&E: the furniture, fixtures and equipment identified in Exhibit G.

Encumbrance: Any ground lease or underlying lease, or the lien of any mortgage, deed of trust, or any other security instrument now or hereafter affecting or encumbering the Project, or any part thereof or interest therein.

Encumbrancer: The holder of the beneficial interest under an Encumbrance.

Environmental Laws: All Applicable Laws in any way relating to or regulating the environment, human health or safety, industrial hygiene, or the use, generation, handling, emission, release, discharge, storage or disposal of Hazardous Materials.

Escalation Rent: Tenant's Percentage Share of (i) the Operating Expenses allocable to a calendar year minus the Base Operating Expense, and (ii) the Tax Expenses allocable to a tax year minus the Base Tax Expenses.

Executive Order No. 13224: Executive Order No. 13224 on Terrorist Financing effective September 24, 2001, and relating to "Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit, or Support Terrorism," as may be amended from time to time.

Existing Lease: That certain Lease Agreement dated August 9, 2016, between Landlord and Tenant, with respect to the Existing Premises, as amended by that certain First Amendment to Lease dated February 23, 2017.

Existing Premises: Suite 500 of the east side of the Building, currently occupied by Tenant pursuant to the Existing Lease.

Extension Option: One (1) option to extend the Term for the entire Premises for a period of five (5) years as provided in Exhibit F.

GAAP: U.S. generally accepted accounting principles consistently applied.

Green Rating Systems: The U.S. EPA's Energy Star® rating system, the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system and other third party rating systems.

Hazardous Materials: Petroleum, asbestos, polychlorinated biphenyls, radioactive materials, radon gas, or any chemical, material or substance now or hereafter defined as or included in the definition of "hazardous substances," "hazardous wastes," "hazardous materials," "pollutants," "contaminants," "extremely hazardous waste," "restricted hazardous waste" or "toxic substances," or words of similar import, under any Environmental Laws. "Hazardous Materials" shall not include commercially reasonable amounts of standard office, kitchen, janitorial or other cleaning materials used in the ordinary course of Tenant's business at the Project which are used and stored in accordance with all applicable Environmental Laws.

HVAC: Heating, ventilation and/or air conditioning.

Impositions: Taxes, assessments, charges, excises and levies, business taxes, license, permit, inspection and other authorization fees, transit development fees, assessments or charges for housing funds, service payments in lieu of taxes and any other fees or charges of any kind at any time levied, assessed, charged or imposed by any federal, state or local entity, (i) upon, measured by or reasonably attributable to the cost or value of Tenant's equipment, furniture, fixtures or other personal property located in the Premises, or the cost or value of any Alterations; (ii) upon, or measured by, any Rent payable hereunder, including any gross receipts tax; (iii) upon, with respect to or by reason of the development, possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises, or any portion thereof; or (iv) upon this Lease transaction, or any document to which Tenant is a party creating or transferring any interest or estate in the Premises. Impositions do not include Tax Expenses, franchise, transfer, inheritance or capital stock taxes, or income taxes measured by the net income of Landlord from all sources, unless any such taxes are levied or assessed against Landlord as a substitute for, in whole or in part, any Imposition.

Interest Rate: Ten percent (10%) per annum provided, however, that if such rate of interest shall exceed the maximum rate allowed by law, the Interest Rate shall be automatically reduced to the maximum rate of interest permitted by Applicable Law.

Land: The parcel of land shown as Lot 9, Assessor's Block 3783, on that cen map entitled "Parcel Map of a Portion of 100 VARA Block No. 412, Also Being a Portion of Assessor's Block 3783," which map was filed November 29, 1988, at Page 36, in Book 38, of Parcel Maps, of the Official Records of the City and County of San Francisco, California.

Landlord Affiliate: An entity which Controls, is Controlled by, or is under common Control with Landlord.

Landlord Entity: Any of the following: (i) Landlord, (ii) a Landlord Affiliate, (iii) an entity in which Landlord or any Landlord Affiliate owns, directly or indirectly, ten percent (10%) or more of the outstanding voting securities or holds, directly or indirectly, possession of ten percent (10%) or more of the voting interests, or (iv) a non-profit organization affiliated with Landlord or any Landlord Affiliate. For purposes of this definition, the terms Landlord and Landlord Affiliate shall also include any successor to Landlord or any Landlord Affiliate by merger, consolidation or any entity to which at least ninety percent (90%) of the Landlord's or Landlord Affiliate's assets are transferred.

Lease Date: The definition given the term in the Basic Lease Information.

Major Alterations: Alterations that (i) may affect the structural portions of the Project, (ii) may adversely affect or interfere with the Project roof, exterior walls, elevators, HVAC, electrical, plumbing, telecommunications, security, life-safety or other Building Systems, (iii) may affect the use and enjoyment by other tenants or occupants of the Project of their premises, (iv) may be visible from outside the Premises, (v) utilize materials or equipment that are inconsistent with Landlord's standard building materials and equipment for the Project, (vi) result in the imposition on Landlord of any requirement to make any alterations or improvements to any portion of the Project (including handicap access and life safety requirements) in order to comply with Requirements, or (vii) materially increase the cost to clean, maintain or repair, or increase the cost to relet, the Premises.

Minor Alterations: Alterations (i) that are not Major Alterations, (ii) that do not require the issuance of a building or other governmental permit, authorization or approval, (iii) that do not require work to be performed outside the Premises in order to comply with Requirements, and (iv) the cost of which does not exceed Fifty Thousand Dollars ($50,000.00) in any one instance or One Hundred Thousand Dollars ($100,000.00) in the aggregate in any calendar year.

Net Worth: The excess of total assets over total liabilities, determined in accordance with GAAP, excluding, however, from the determination of total assets, goodwill and other intangibles.

Operating Expenses:

(a) All expenses, costs and disbursements (but not specific costs billed to or paid directly by specific tenants of the Project) of every kind and nature, computed on the accrual basis, relating to or incurred or paid by Landlord in connection with the ownership, management, operation, repair and maintenance of the Project, including but not limited to, without duplication, the following and which are actually paid or incurred by Landlord:

(1) wages, salaries and other costs of all on site and off site employees at or below the level of general manager or senior property manager engaged either full or part time in the operation, management, maintenance or access control of the Project, including taxes, insurance and benefits relating to such employees, allocated based upon the time such employees are engaged directly in providing such services; *provided*, that to the extent that the wages, salaries and costs of any such employee is also allocable to property other than the Project, such cost shall be equitably allocated to the Project and to each other parcel of property which benefits from such cost;

(2) the cost of all supplies, tools, equipment and materials used in the operation, management, maintenance and access control of the Project;

(3) subject to clause (b)(18) of the definition of Operating Expenses below, the cost of all utilities for the Project, including but not limited to the cost of electricity, gas, water and sewer services;

(4) the cost of all maintenance and service agreements for the Project and the equipment therein to the extent actually provided by Landlord, including but not limited to, as applicable, security service, window cleaning, elevator maintenance, HVAC maintenance, waste recycling service, landscaping maintenance, customary landscaping replacement, and maintenance (including striping and painting) of the Parking Facility;

(5) the cost of repairs and general maintenance of the Project, including the cost of repair following a Casualty to the extent not reimbursed by insurance proceeds or other payments from a third party;

(6) the acquisition and/or installation costs of capital investment items (including security and energy management equipment) which are installed for the purpose of reducing operating expenses, promoting safety, complying with Requirements first enacted after the Commencement Date, or maintaining the first class nature of the Project including capital investment items which are replacements of items which are obsolete or cannot be repaired in an economically feasible manner, costing less than $0.60 per RSF of the Premises on an aggregate annual basis, or to the extent costs per year exceeds $0.60 per RSF of the Premises, such costs shall be amortized over their respective useful lives as determined in accordance with GAAP, together with reasonable financing charges (whether or not actually incurred);

(7) the cost of property, rental loss, liability and other insurance, including earthquake, applicable to the Building and the Project, including commercially reasonable deductibles and Landlord's personal property used in connection therewith;

(8) the cost of trash and garbage removal, recycling, air quality audits, vermin extermination, and snow, ice and debris removal;

(9) the cost of legal and accounting services incurred by Landlord in connection with the management, maintenance, operation and repair of the Project, excluding the owner's or Landlord's general accounting, such as partnership statements and tax returns;

(10) the cost of complying with Requirements first enacted after the Commencement Date;

(11) any other reasonable expenses of any other kind whatsoever incurred in managing, operating, overseeing, maintaining and repairing the Project.

Operating Expenses shall also include a management fee not to exceed three percent (3%) of gross receipts for the Project.

(b) Notwithstanding anything in any other provision of this Lease to the contrary, "Operating Expenses" shall not include the following:

(1) the cost of any special work or service performed for any tenant (including Tenant) at such tenant's or Landlord's cost, including fixturing, improving, renovating, painting, redecorating or other works that Landlord pays for or performs for other tenants within their premises, and the cost of correcting defects in such work;

(2) the cost of installing, operating and maintaining any specialty service, such as an observatory, broadcasting facility, luncheon club, restaurant, cafeteria, retail store, sundry shop, newsstand, or concession, but only to the extent such costs exceed those which would normally be expected to be incurred had such space been general office space;

(3) compensation paid to officers and executives of Landlord (but it is understood that property management employees may carry a title such as vice president and, subject to the limitations set forth in clause (a)(1) above, the salaries and related benefits of these officers/employees of Landlord would be allowable Operating Expenses);

(4) the cost of any items for which Landlord is reimbursed by insurance, condemnation or warranties or by other tenants (including Tenant) of the Project;

(5) the cost of any additions, improvements, changes, replacements and other items which are made in order to prepare for a new tenant's occupancy;

(6) the cost of repairs incurred by reason of fire or other Casualty to the extent reimbursed by insurance proceeds (other than business interruption and rent loss insurance proceeds) under policies maintained by Landlord;

(7) insurance premiums to the extent Landlord is directly reimbursed therefor, other than through Operating Expenses;

(8) debt of Landlord, interest on debt, or amortization payments on any Encumbrance except to the extent, in each case, that the debt which is being amortized was incurred to pay for an expense which is properly included in Operating Expenses *(e.g.,* debt incurred to pay for capital investment items under clause (a)(6) above);

(9) any real estate brokerage commissions or other costs, including attorneys' fees for the negotiation of leases for new tenants, incurred in procuring tenants or any fee in lieu of such commissions;

(10) any advertising and promotional expenses incurred in connection with the marketing of any rentable space, including any free rent and construction allowances for other tenants, if any;

(11) any expenses for repairs or maintenance which are covered by warranties and service contracts, to the extent such maintenance and repairs are made at no cost to Landlord;

(12) legal expenses arising out of the construction of the improvements on the Land or the enforcement or negotiation of the provisions of any lease affecting the Project including without limitation this Lease, or relating to the sale, financing or refinancing of the Project or any interest therein except to the extent directly related to financing in connection with the management, maintenance, operation or repair of the Project *(e.g.,* debt incurred to pay for capital investment items under clause (a)(6) above);

(13) costs due to the presence of Hazardous Materials on or about the Project, including environmental remediation, including the remediation of any soils or ground water or the removal of any underground storage tanks from the Project;

(14) fines and penalties assessed by a court or governmental agency to the extent such fines and penalties are based on Landlord's or its employees', suppliers', agents' contractors' or invitees' violation of law or negligence in failing to perform an act or pay an amount due, including the payment of any Tax Expenses;

(15) legal, accounting or consulting costs incurred in connection with the acquisition or disposition of the Project or legal, accounting or consulting costs and damages incurred in connection with Landlord's disputes with its employees, tenants, consultants, agents, vendors, contractors or leasing agents or any costs incurred by Landlord due to the violation by Landlord or its employees, agents or contractors of the terms and conditions of any lease of space in the Project or any Requirements;

(16) Tax Expenses;

(17) the cost of providing janitorial service to other spaces in the Building other than the Common Areas (including the Premises);

(18) the cost of providing electricity to tenant spaces within the Building (provided, that Operating Expenses shall include the cost of providing electricity to the Common Areas);

(19) the original costs of construction of the Project incurred prior to the Commencement Date, and costs of correcting defects in such original construction;

(20) capital expenditures (including costs to restore after a casualty that are not reimbursed by insurance proceeds or by deductibles) except to the extent amortized as provided in clause (a)(6) above, or capital expenditures for expansion of the Project;

(21) general organization, administrative and overhead costs relating to maintain Landlord's existence, either as a corporation, partnership or other entity, including general corporate legal and accounting expenses;

(22) costs of Landlord's charitable or political contributions, or of fine art maintained at the Project;

(23) overhead and profit increment paid to Landlord or to subsidiaries or affiliates of Landlord for goods and/or services in or to the Project to the extent the same exceeds the costs of such goods and/or services rendered by unaffiliated third parties on a competitive basis;

(24) all payment of base rent (but not taxes or operating expenses) under any ground lease or other underlying lease of all or any portion of the Project or costs incurred in connection with the defense of Landlord's title to all or any portion of the Project;

(25) costs in connection with services or other benefits of a type which are not available to Tenant without specific charges therefor, but which are provided to another tenant or occupant of the Project, if any, whether or not such other tenant or occupant is specifically charged therefor by Landlord;

(26) depreciation of the Building, equipment or systems located therein;

(27) costs to correct violations of Requirements that existed on the Commencement Date; and

(28) expense reserves.

Original Tenant: The original named Tenant under this Lease.

Owner Occupied First Class Office Building: A Comparable Building in which one or more Landlord Entities (which for purposes of this defined term shall be defined without reference to the named Landlord under this Lease, but refer to an entity that directly or through an affiliate owns the office building in question), occupies, for its own use as general office, executive and administrative offices, over fifty percent (50%) of the rentable square footage of the building (and which, for purposes of this Lease, the building shall be deemed the west side of the Building).

Parking Facility: The above-ground parking structure serving the Project.

Prohibited Person: (i) A person or entity that is listed in the Annex to Executive Order No. 13224, or a person or entity owned or controlled by an entity that is listed in the Annex to Executive Order No. 13224; (ii) a person or entity with whom Landlord is prohibited from dealing or otherwise engaging in any transaction by any Anti-Terrorism Law; or (iii) a person or entity that is named as a "specially designated national and blocked person" on the most current list published by the U.S. Treasury Department Office of Foreign Assets Control at its official website, http://www.treas.gov/ofac/t11sdn.pdf or at any replacement website or other official publication of such list.

Project: The Land, the Building and all other buildings or improvements located on the Land after the Lease Date, and all appurtenances related thereto, including the Parking Facility and loading dock area.

Recorded Documents: All easement agreements, cost sharing agreements, covenants, conditions, and restrictions and all similar agreements affecting the Project, whether now or hereafter recorded against the Project.

Related Company: (i) An entity which Controls, is Controlled by, or is under common Control with Tenant; (ii) an entity into or with which Tenant is merged or consolidated; (iii) an entity to which at least ninety percent (90%) of Tenant's assets are transferred; or (iv) so long as the identity of the persons responsible for the operation and management of the business of Tenant does not change, Tenant, where Tenant admits additional members or shareholders in connection with obtaining additional equity investment in Tenant or transfers more than fifty percent (50%) of its voting shares (other than sales on a public exchange).

Rent: Base Rent, Escalation Rent and all other additional rent, additional charges and amounts payable by Tenant in accordance with this Lease.

Rent Commencement Date: The definition given the term in the Basic Lease information.

Requirements: All Applicable Laws; the provisions of any insurance policy carried by Landlord or Tenant on any portion of the Project, or any property therein; the requirements of any independent board of fire underwriters; any directive or certificate of occupancy issued pursuant to any law by any public officer or officers applicable to the Project; the provisions of all Recorded Documents affecting any portion of the Project; and all life safety programs, procedures and rules from time to time or at any time implemented or promulgated by Landlord for uniform application to all tenants of the Building.

Right of First Offer: A right of first offer to the Original Tenant for the portions of the Building more particularly described in Section 1 of Exhibit E.

Rules and Regulations: The rules and regulations attached hereto as Exhibit B, as the same may be amended from time to time in accordance with the terms of this Lease.

RSF: Rentable square foot or rentable square footage, as applicable. RSF shall be calculated using the Building Owners and Managers Association ("BOMA") Office Buildings: Standard Methods of Measurement ANSI/BOMA Z65.1 - 2010, Method A (the "BOMA Standard"), as modified by Landlord for uniform application in the measurement of space in the Project. [OPEN: confirm with property manager]

Security Deposit: The definition given the term in the Basic Lease Information.

Specialty Improvements: means any Alterations other than normal and customary general office improvements. Specialty Improvements shall include, without limitation,(a) any Alterations which affect the base building or Building Systems, (b) any fitness facility in the Premises, (c) any shower facilities in the Premises, (d) any private stairways in the Premises, (e) any commercial kitchen in the Premises (excluding typical break room kitchenettes), (f) any racking systems, high density filing systems, or signage in the Premises, (g) bike parking and storage related facilities and improvements, (h) dog related facilities and improvements, (i) any Alterations that perforate, penetrate or require reinforcement of a floor slab (including, without limitation, interior stairwells or high-density filing or racking systems), (j) any Alterations that consist of the installation of a raised flooring system, (k) any Alterations that consist of the installation of a vault or other similar device or system intended to secure the Premises or a portion thereof in a manner that exceeds the level of security necessary for ordinary office space, (l) any Alterations that involve material plumbing connections (such as, for example but not by way of limitation, kitchens, saunas, showers, and executive bathrooms outside of the Building core and/or special fire safety systems), (m) any Alterations that consist of the dedication of any material portion of the Premises to non-office usage (such as classrooms or commercial kitchens), and (n) affect the exterior appearance of the Building.

Target Delivery Date: April 1, 2019, which is the date that Landlord anticipates delivering the Premises to Tenant.

Tax Expenses: All taxes, assessments, fees, charges, or other governmental impositions of every kind and nature attributable to the ownership, leasing and operation the Project, whether or not directly paid by Landlord, whether federal, state, county or municipal and whether they be by taxing districts or authorities presently taxing the Project or by others subsequently created or otherwise, and any other taxes and assessments attributable to the Project or its operation (and the costs of contesting any of the same), including community improvement district taxes, business license taxes and fees, real estate taxes, real estate excise taxes, general and special assessments, transit taxes, leasehold taxes or taxes based upon the receipt of rent, including gross receipts or sales taxes applicable to the receipt of rent, unless required to be paid by Tenant, personal property taxes imposed upon the fixtures, machinery, equipment, apparatus, systems and equipment, appurtenances, furniture and other personal property used in connection with the Project, or any portion thereof), excluding, however, Impositions, federal and state taxes on income, death taxes, franchise taxes, penalties (but only if Landlord is negligent in paying such taxes in a timely manner), interest, transfer taxes, and any taxes (other than business license taxes and fees and taxes on Landlord's rental income from the Project but not its other income) imposed or measured on or by the income of Landlord from the operation of the Project. Tax Expenses shall include (except to the extent the same are an Imposition), without limitation: (i) Any tax on the rent, right to rent or other income from the Project, or any portion thereof, or as against the business of leasing the Project, or any portion thereof; (ii) Any assessment, tax, fee, levy or charge in addition to, or in substitution, partially or totally, of any assessment, tax, fee, levy or charge previously included within the definition of real property tax, it being acknowledged by Tenant and Landlord that Proposition 13 was adopted by the voters of the State of California in the June 1978 election ("Proposition 13") and that assessments, taxes, fees, levies and charges may be imposed by governmental agencies for such services as fire protection, street, sidewalk and road maintenance, refuse removal and for other governmental services formerly provided without charge to property owners or occupants, and, in further recognition of the decrease in the level and quality of governmental services and amenities as a result of Proposition 13, Tax Expenses shall also include any governmental or private assessments or the Project's contribution towards a governmental or private cost-sharing agreement for the purpose of augmenting or improving the quality of services and amenities normally provided by governmental agencies; (iii) Any assessment, tax, fee, levy, or charge allocable to or measured by the area of the Premises or the Rent payable hereunder, including, without limitation, any business or gross income tax or excise tax with respect to the receipt of such rent, or upon or with respect to the possession, leasing, operating, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises, or any portion thereof; and (iv) Any assessment, tax, fee, levy or charge, upon this transaction or any document to which Tenant is a party, creating or transferring an interest or an estate in the Premises or the improvements thereon. Subject to the remainder of this definition of Tax Expenses, below, tax refunds (other than in connection with a Proposition 8 challenge allocable to the Base Tax Year) shall be credited against Tax Expenses and refunded to Tenant regardless of when received, based on the Expense Year to which the refund is applicable, provided that in no event shall the amount to be refunded to Tenant for any such Expense Year exceed the total amount paid by Tenant as additional Rent under Section 4 below for such Expense Year. If Tax Expenses for any period during the Term or any extension thereof are increased after payment thereof for any reason, including, without limitation, error or reassessment by applicable governmental or municipal authorities, subject to the terms of this definition of Tax Expense, Tenant shall pay Landlord within thirty (30) days following demand accompanied by reasonably detailed back-up documentation Tenant's Percentage Share of any such increased Tax Expenses included by Landlord as Building Tax Expenses pursuant to the terms of this Lease. If the property tax assessment for the Project (or any portion thereof) (or Tax Expenses) for the Base Year or any Expense Year does not reflect an assessment (or Tax Expenses) for a one hundred percent (100%) leased, completed and occupied project (such that existing or future leasing, tenant improvements and/or occupancy may result in an increased assessment and/or increased Tax Expenses), Tax Expenses shall be adjusted, on a basis consistent with sound real estate accounting principles, to reflect an assessment for (and Tax Expenses for) a one hundred percent (100%) leased, completed and occupied project. Notwithstanding anything to the contrary set forth in this Lease, if and only if Landlord obtains a reduction in Tax Expenses for the Base Year pursuant to a so-called "Proposition 8" challenge, the amount of Tax Expenses for the Base Year and any Expense Year shall be calculated

without taking into account any decreases in real estate taxes obtained in connection with Proposition 8, and, therefore, in such event the Tax Expenses in the Base Year and/or an Expense Year may be greater than those actually incurred by Landlord, but shall, nonetheless, be the Tax Expenses due under this Lease; provided that in such event (i) any costs and expenses incurred by Landlord in securing any Proposition 8 reduction shall not be included in Impositions for purposes of this Lease, and (ii) tax refunds under Proposition 8 shall not be deducted from Tax Expenses, but rather shall be the sole property of Landlord. Landlord and Tenant acknowledge that this definition of Tax Expenses is not intended to in any way affect (A) the inclusion in Tax Expenses of the statutory two percent (2.0%) annual increase in Tax Expenses (as such statutory increase may be modified by subsequent legislation), or (B) the inclusion or exclusion of Tax Expenses pursuant to the terms of Proposition 13, which shall be governed pursuant to the terms of this definition of Tax Expenses. Notwithstanding anything to the contrary set forth in this Lease, only Landlord may institute proceedings to reduce Tax Expenses and the filing of any such proceeding by Tenant without Landlord's consent shall constitute an Event of Default by Tenant after the expiration of applicable notice and cure periods. Notwithstanding the foregoing, Landlord shall not be obligated to file any application or institute any proceeding seeking a reduction in Tax Expenses.

Tenant Improvement Allowance: The amount of Two Million, Three Hundred Fifty Three Thousand, Seven Hundred Sixty Dollar ($2,353,760.00), to be credited by Landlord to Tenant towards the cost of construction of the Initial Alterations within the Premises (including consultant fees), in accordance with Article 10 of this Lease.

Tenant Parties: Tenant and its sublessees and their respective employees, agents, contractors, licensees, invitees, representatives, officers, directors, shareholders, partners (if any of the foregoing parties is a partnership), and members (if any of the foregoing parties is a limited liability company).

USA Patriot Act: The “Uniting and Strengthening America by Providing

Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001” (Public Law 107 56), as may be amended from time to time.

Wattage Allowance: 4.5 watts times the RSF of the Premises divided by 1,000, multiplied by the Building Standard Hours, with respect to connected load for general purposes, and 1.5 watts times the RSF of the Premises divided by 1,000, multiplied by the Building Standard Hours, with respect to lighting, which shall result in kilowatt hours.

1.2 Basic Lease Information. The Basic Lease Information is incorporated into and made a part of this Lease. Each reference in this Lease to any Basic Lease Information shall mean the applicable information set forth in the Basic Lease Information, except that in the event of any conflict between an item in the Basic Lease Information and this Lease, this Lease shall control.

2. Lease of Premises.

2.1 Premises. Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the Premises, together with the non-exclusive right to use, in common with others, the Common Areas, subject to the terms, covenants and conditions set forth in this Lease. Landlord reserves from the leasehold estate granted hereunder (i) all exterior walls and windows bounding the Premises, (ii) all space located within the Premises that currently houses common shafts, stacks, pipes, conduits, ducts, utilities, telecommunications systems, and other installations for Building Systems, the use thereof and access thereto (subject to Article 19), and (iii) the right to install, remove or relocate any of the foregoing for service to any part of the Project, including the premises of other tenants of the Building. Prior to the effective date of this Lease, Tenant has been given the opportunity to review Landlord’s calculations and methodology in the computation of the rentable and usable square footage of the Premises and of Tenant’s Percentage Share. Landlord and Tenant acknowledge and agree that the RSF of the Premises and the RSF of the Project stated in the Basic Lease Information shall be final and conclusive for all purposes of this Lease, and shall not be subject to re-measurement.

2.2 Existing Lease

(a) Tenant acknowledges that, as of the Lease Date, Tenant occupies the Existing Premises under the terms of the Existing Lease, and that, subject to the terms of this Lease, Tenant's rights and obligations with respect to the Existing Premises are and shall remain governed solely by he Existing Lease. Tenant agrees to vacate and surrender possession of the Existing Premises and to complete the relocation of its business operations to the Premises no later than five (5) business days following the Rent Commencement Date (the **"Existing Premises Surrender Date"**). Tenant shall surrender possession of the Existing Premises in such good and clean condition as is required by the Existing Lease as if such surrender of the Existing Premises was being effected as of the expiration of the Term of the Existing Lease, and, except as hereinafter provided, Tenant's obligation to pay rent with respect to the Existing Premises shall cease to accrue as of the Rent Commencement Date. Notwithstanding the foregoing, except as provided in Exhibit J (with the items identified therein being referred to as the **"Existing Lease Removal Obligations"**), Tenant shall not be required to restore any condition or remove any alterations that exist in the Existing Premises as of the Lease Date. Tenant's failure or refusal to vacate and surrender possession of the Existing Premises on or before the Existing Premises Surrender Date (other than in de minimis respects) in the condition required by this Section 2.2 shall, at the election of Landlord, upon notice to Tenant, constitute an Event of Default under the Existing Lease, and the payment of rent as to the Existing Premises in accordance with the Existing Lease shall continue to accrue as if Tenant was holding over possession of the Existing Premises beyond the expiration of the term of the Existing Lease without the consent of Landlord (in addition to the rent payable with respect to the Premises) until the actual vacation and surrender of the Existing Premises in accordance with the terms of this Lease. Subject to the foregoing, the Existing Lease shall be deemed terminated as of the Existing Premises Surrender Date, and Tenant shall have no further responsibility or obligations with respect to the Existing Premises except as provided in Section 2.2(b).

(b) Nothing herein is intended as a release of Tenant of any obligations under the Existing Lease to pay Operating Expenses and Tax Expenses accruing prior to the later to occur of the Rent Commencement Date and, if Tenant does not surrender the Existing Premises on or before the Existing Premises Surrender Date, the actual date of surrender of the Existing Premises in the condition required by this Section 2.2(a) (the "Existing Lease Early Termination Date") and, in addition, shall not be a release by Landlord of any claim or right of indemnification by Tenant for any third party claims filed prior to or after the Existing Lease Early Termination Date and relating to the use and/or occupancy of the Existing Premises by Tenant or any of its, employees, agents, contractors customers or invitees.

3. Condition and Acceptance of Premises; Term; Renewal.

3.1 Delivery of Premises; Term Commencement.

(a) Landlord shall deliver the Premises to Tenant on the Commencement Date, broom clean, vacant (except for the Designated FF&E), substantially in the same condition is exists on the Lease Date and otherwise in its "AS IS" condition; provided, however, as of the Commencement Date, all Building Systems serving the Premises shall be in good operating order and condition. Except as set forth in this Lease, Tenant agrees that the Premises are being delivered without any representations or warranties by Landlord, and with no obligation of Landlord to make any alterations or improvements to the Premises. However, Landlord shall provide Tenant a Tenant Improvement Allowance as most particularly described in Section 10.2(a) of this Lease.

(b) Tenant acknowledges that as of the Lease Date, a Landlord Entity occupies the Premises, and that said Landlord Entity is scheduled to relocate to other portions of the Building prior to the Target Delivery Date. Subject to delays resulting from Force Majeure Events (as defined below), Landlord shall exercise commercially reasonable efforts (without any obligation to engage overtime labor or commence any litigation) to deliver possession of the Premises to Tenant on the Target Delivery Date. If Landlord is unable to deliver possession of the Premises to Tenant on the Target Delivery D , Landlord shall not be subject to any liability for its failure to do

so and such failure shall not affect he validity of this Lease nor the obligations of Tenant hereunder, and the sole remedy of Tenant shall be a day for day extension of (i) the Commencement Date until the actual Commencement Date and (ii) if the Commencement Date is delayed such that the Existing Premises Surrender Date would be after February 28, 2020, the Expiration Date under the Existing Lease. Landlord will give Tenant not less than ten (10) business days prior written notice of the actual Commencement Date (provided, however, in no event shall the Commencement Date occur prior to April 1, 2019).

(c) Within ten (10) days after Landlord's request following the actual Commencement Date, Tenant shall execute and deliver to Landlord a Confirmation of Lease Dates in the form of Exhibit C attached hereto.

(d) Landlord shall deliver and convey to Tenant in the Premises on the Commencement Date, at no cost, the furniture, fixtures and equipment located in the Premises as of the date hereof, set forth in Exhibit G (the "Designated FF&E"). The Designated FF&E is being delivered without any representation or warranty as to merchantability of suitability of use for any particular purpose, but with a representation that Landlord owns such items free and clear of liens, and shall be deemed Tenant's Property for purposes of this Lease. Landlord shall be responsible for any sales or transfer tax with respect thereto. Except for the Designated FF&E, prior to the Commencement Date Landlord shall cause to be removed from the Premises, at Landlord's sole cost and expense, any furniture, fixtures and equipment other than the Designated FF&E.

3.2 Term of Lease. The Term of this Lease shall commence on the Commencement Date and shall expire on the Expiration Date, unless sooner terminated in accordance with the terms of this Lease or extended on the terms stated in Exhibit F. This Lease shall be a binding contractual obligation effective upon execution and delivery hereof by Landlord and Tenant, notwithstanding the later commencement of the Term.

4. Rent.

4.1 Obligation to Pay Base Rent. Tenant shall pay Base Rent to Landlord during the Term for the Premises equal to the RSF of the Premises multiplied by the Base Rent rate per RSF set forth in the Basic Lease Information, as such rate is adjusted pursuant to Section 4.2 below, in advance, in equal monthly installments, commencing on the Rent Commencement Date, and thereafter on or before the first day of each calendar month during the Term. If a Rent Commencement Date is other than the first day of a calendar month, then the Base Rent payable for the applicable portion(s) of the Premises shall be prorated on the basis of a thirty (30)-day month. If the Expiration Date is other than the last day of a calendar month, or if this Lease shall be terminated as of a day other than the last day of a calendar month (except in the case of an Event of Default (as defined below)), the installment of Base Rent for the last fractional month of the Term shall be prorated on the basis of a thirty (30)-day month.

4.2 Base Rent Adjustment. The Base Rent rate per RSF set forth in the Basic Lease Information shall be adjusted on the Base Rent Adjustment Date and on each annual anniversary of the Base Rent Adjustment Date by multiplying the Base Rent rate per RSF payable immediately before such date by three percent (3%) and adding the resulting amount to the Base Rent rate per RSF payable immediately before such date. Base Rent, as so adjusted, shall thereafter be due as provided herein. Base Rent adjustments for any fractional calendar month shall be prorated on the basis of a thirty (30)-day month.

4.3 Manner of Rent Payment. Except for any Rent abatement as may be expressly provided under this Lease, all Rent shall be paid by Tenant without notice, demand, abatement, deduction or offset, in lawful money of the United States of America, and if payable to Landlord, at Landlord's Address for Payments in the Basic Lease Information, or to such other person or at such other place as Landlord may from time to time designate by notice to Tenant.

4.4 Additional Rent; Other Payments.

(a) Additional Rent. All Rent not characterized as Base Rent, Escalation Rent or Parking Charges (as defined below) shall constitute additional rent, and if payable to Landlord shall, unless otherwise specified in this Lease, be due and payable thirty (30) days after Tenant's receipt of Landlord's invoice therefor.

(b) Electricity and Janitorial Payments. In addition to the Base Rent and Escalation Rent, and other charges payable under this Lease, (i) commencing on the Commencement Date, Tenant shall pay for all electricity supplied to the Premises during the Term, and (ii) commencing on the Rent Commencement Date Tenant shall pay Tenant's Percentage Share of the cost of janitorial service provided to the Building (including the Premises). Landlord represents that the Premises are submetered in a manner reasonably satisfactory to Landlord. Tenant shall pay Landlord for all electricity supplied to the Premises and janitorial service as set forth in this Section 4.4(b), as Additional Rent, on a monthly basis, within thirty (30) days after Landlord delivering an invoice therefor to Tenant. Notwithstanding anything to the contrary in the foregoing, subject to the terms of this Paragraph, the named Tenant under this Lease and any Related Company shall have the right to provide its own janitorial services in the Premises, in which case the pro-rata share of any janitorial services costs to leased premises in the Building (as opposed to janitorial services to Common Areas) shall not be charged to Tenant. It is a condition to any Tenant designated janitorial services vendor providing services in the Building that such vendor be approved by Landlord in advance, which approval shall not be unreasonably withheld, provided that such vendor is compatible with all union contracts applicable to Landlord for service providers in the Building, is bonded and carries insurance with coverages then required by Landlord of vendors providing comparable services in the Building, all equipment and materials utilized by such vendor shall be stored entirely in the Premises, all materials and waste disposed of by such vendor shall be disposed of in accordance with the policies and procedures for waste disposal adopted by Landlord for the Building, and provided such janitorial services vendor follows Landlord's janitorial specifications for services in leased premises in the Building (with the intent that such vendor is not allowed to provide janitorial services to the Premises with a less expensive scope of work or quality than that required of Landlord to other tenant occupied premises in the Building). Upon request, Landlord will provide Tenant with Landlord's janitorial specifications for leased premises in the Building.

4.5 Late Payment of Rent; Interest. Tenant acknowledges that late payment by Tenant of any Rent will cause Landlord to incur administrative costs not contemplated by this Lease, the exact amount of which is extremely difficult and impracticable to ascertain based on the facts and circumstances pertaining as of the Lease Date. Accordingly, if any Rent is not paid by Tenant when due, then Tenant shall pay to Landlord a late charge equal to five percent (5%) of such Rent. Any Rent, other than late charges, due Landlord under this Lease, if not paid when due, shall also bear interest at the Interest Rate from the date due until paid. The parties acknowledge that such late charge and interest represent a fair and reasonable estimate of the administrative costs and loss of use of funds Landlord will incur by reason of a late Rent payment by Tenant, but Landlord's acceptance of such late charge and/or interest shall not constitute a waiver of an Event of Default with respect to such Rent or prevent Landlord from exercising any other rights and remedies provided under this Lease. Notwithstanding the foregoing, before assessing a late charge or late interest the first time in any twelve (12) month period, Landlord shall provide Tenant written notice of the delinquency, and shall waive such late charge and interns Tenant pays such delinquency within five (5) days thereafter.

5. Calculation and Payments of Escalation Rent. Tenant shall pay to Landlord Escalation Rent in accordance with the following procedures:

5.1 Payment of Estimated Escalation Rent. Commencing with December 2019, during December of each calendar year of the Term, or as soon thereafter as practicable, Landlord shall give Tenant notice of its estimate of Escalation Rent due for the ensuing calendar year. Commencing on January 1, 2020, on or before the first day of each month, Tenant shall pay to Landlord in advance, in addition to Base Rent, one-twelfth (1/12th) of such estimated Escalation Rent, unless such notice is not given in December, in which event, Tenant shall continue

to pay on the basis of the prior calendar year's estimate until the month after such notice is given, and subsequent payments by Tenant shall be based on Landlord's notice. With the first monthly payment based on Landlord's notice, Tenant shall also pay the difference, if any, between the amount previously paid for such calendar year and the amount which Tenant would have paid through the month in which such notice is given, based on Landlord's noticed estimate. If Landlord reasonably determines that the Escalation Rent for the current calendar year will vary from Landlord's estimate, Landlord may, by notice to Tenant, revise its estimate for such calendar year, and subsequent payments by Tenant for such calendar year shall be based upon such revised estimate. Landlord's failure or delay in providing Tenant with Landlord's estimate of Escalation Rent for any calendar year shall not constitute a default by Landlord hereunder, or a waiver by Landlord of Tenant's obligation to pay Escalation Rent for such calendar year or of Landlord's right to send such an estimate to Tenant on a later date.

5.2 Escalation Rent Statement and Adjustment. Within one hundred twenty (120) days after the close of each calendar year, or as soon thereafter as practicable, Landlord shall deliver to Tenant a statement of the actual Escalation Rent for such calendar year, showing in reasonable detail (a) the Operating Expenses and the Tax Expenses comprising the actual Escalation Rent, and (b) payments made by Tenant on account of Operating Expenses and Tax Expenses for such calendar year (an "Annual Statement"). If the Annual Statement shows that Tenant owes an amount that is more than the payments previously made by Tenant for such calendar year, Tenant shall pay the difference to Landlord within thirty (30) days after delivery of the statement. If the Annual Statement shows that Tenant owes an amount that is less than the payments previously made by Tenant for such calendar year, Landlord shall credit the difference first against any sums then owed by Tenant to Landlord and then against the next payment or payments of Rent due Landlord, except that if a credit amount is due Tenant after the termination of this Lease, Landlord shall pay to Tenant any excess remaining after Landlord credits such amount against any sums owed by Tenant to Landlord within thirty (30) days after the delivery of the final Annual Statement. Notwithstanding any provision in this Lease to the contrary, however, in no event shall any decrease in Operating Expenses or Tax Expenses below the Base Operating Expenses or Base Tax Expenses, respectively, entitle Tenant to any refund, decrease in Base Rent, or any credit against sums due under this Lease. Landlord may revise the Annual Statement for any calendar year if (i) Landlord first receives invoices from third parties, tax bills or other information relating to adjustments to Operating Expenses or Tax Expenses allocable to such calendar year after the initial issuance of such Annual Statement and/or (ii) the amount of Operating Expenses or Tax Expenses allocable to the Base Expense Year or Base Tax Year, as applicable, is subsequently adjusted in accordance with this Section 5.2 or Section 5.3 below. Landlord's failure or delay in providing Tenant with an Annual Statement for any calendar year shall not constitute a default by Landlord hereunder, or a waiver by Landlord of Tenant's obligation to pay Escalation Rent for such calendar year or of Landlord's right to send such Annual Statement on a later date. Tenant shall have ninety (90) days after receipt of an Annual Statement to notify Landlord in writing that Tenant disputes the correctness of the Annual Statement (**"Expense Claim"**). If Tenant does not object in writing to an Annual Statement within s lid ninety (90)-day period, such Annual Statement shall be final and binding upon Tenant. If Tenant delivers an Expense Claim to Landlord within said ninety (90)-day period, the parties shall promptly meet and attempt in good faith to resolve the matters set forth in the Expense Claim. If the parties are unable to resolve the matters set forth in the Expense Claim within thirty (30) days after Landlord's receipt of the Expense Claim ("Expense Resolution Period"), then Tenant shall have the right to examine Landlord's records, subject to the terms and conditions set forth in Section 5.7 below. This Section 5.2 shall survive the expiration or earlier termination of this Lease.

5.3 Adjustments to Operating Expenses.

(a) If the Building is less than 100% occupied during any calendar year of the Term, including the Base Expense Year, Operating Expenses for such calendar year shall be adjusted to the amount of Operating Expenses that would have been incurred if the Building had been 100% occupied. Notwithstanding anything to the contrary set forth in this Lease, if in any calendar year subsequent to the Base Expense Year, the amount of Operating Expenses decreases below the amount of Operating Expenses allocable to the Base Expense Year, Tenant shall not be entitled to receive any refund or credit. In no event shall any adjustments to Operating Expenses in any calendar year result in Landlord receiving from Tenant and other tenants more than one hundred percent (100%) of the cost

of the actual Operating Expenses incurred by Landlord in any such calendar year and Landlord shall not make a profit by charging items to Operating Expenses; *provided* that, this sentence shall not limit Landlord's ability to include in Operating Expenses the management fee set forth in the definition of Operating Expenses. Base Year Expenses shall not include market-wide cost increases (including utility rate increases) due to extraordinary circumstances, including, but not limited to, Force Majeure Events, boycotts, strikes, conservation surcharges, embargoes or shortages.

(b) Landlord reserves the right, in good faith, to establish classifications for the equitable allocation of Operating Expenses that are incurred for the direct benefit of specific types of tenants or users of the Project ("Cost Pools"). Such Cost Pools may include an allocation of Operating Expenses for access control to the west side of the Building and services only provided to occupants in the west side of the Building, or to retail tenants within the Project. Landlord's determination of such allocations shall be made in a manner consistent with its good faith business judgment as to the management of the Project and shall be final and binding on Tenant. Tenant acknowledges that the allocation of Operating Expenses among Cost Pools does not affect all such items and is limited to specific items that are incurred or provided to tenants of Cost Pools which Landlord determines, in good faith, it would be inequitable to share, in whole or in part, among tenants of other Cost Pools in the Building, or among the buildings comprising the Project.

5.4 Intentionally Omitted.

5.5 Payment of Tax Expenses in Installments. If, by law, any Tax Expenses may be paid in installments (whether or not interest accrues on the unpaid balance), then, for any calendar year (including the Base Tax Year), Landlord shall include in the calculation of such Tax Expenses only the amount of the installments (with any interest) due and payable during such year had Landlord selected the longest permissible period of payment, provided that following the retirement or completed payment of any such Tax Expenses, the amount of Tax Expenses allocable to the Base Tax Year shall be adjusted to eliminate that portion included therein, if any, that related to such retired or paid Tax Expenses.

5.6 Proration for Partial Year. If this Lease terminates other than on the last day of a calendar year (other than due to an Event of Default), the amount of Escalation Rent for such fractional calendar year shall be prorated on the basis of twelve (12), 30-day months in each calendar year. Up™ such termination, Landlord may, at its option, calculate the adjustment in Escalation Rent prior to the time specified in Section 5,2 above

5.7 Inspection of Landlord's Records.

(a) Independent Review. Provided that Tenant has timely delivered an Expense Claim to Landlord, Tenant or a certified public accountant engaged by Tenant ("Tenant's CPA") shall have the right, at Tenant's cost and expense, to examine, inspect, and copy the records of Landlord concerning the components of Escalation Rent, Operating Expenses and/or Tax Expenses ("Landlord's Records") for the calendar year in question that are disputed in the Expense Claim ("Tenant's Review"). Any examination of Landlord's Records shall take place upon reasonable prior written notice, at the offices of Landlord or Landlord's property manager, during normal business hours, no later than two hundred forty (240) days after expiration of the Expense Resolution Period. Tenant's CPA engaged to inspect Landlord's records shall be compensated on an hourly basis and shall be subject to Landlord's prior written approval, which shall not be unreasonably withheld or delayed. Tenant agrees to keep, and to cause Tenant's CPA to keep, all information obtained by Tenant or Tenant's CPA confidential, and Landlord may require all persons inspecting Landlord's records to sign a commercially reasonable confidentiality agreement prior to making Landlord's Records available to them. In no event shall Tenant be permitted to examine Landlord's Records or dispute any Annual Statement unless Tenant has paid and continues to pay all Rent (including the amount disputed in the Expense Claim) when due.

(b) Landlord's Dispute. If Landlord disputes the results of any Tenant's Review, Landlord shall provide written notice of such dispute and Landlord and Tenant shall promptly thereafter work in good faith in an attempt to address Landlord's dispute for a period of thirty (30) days after completion of Tenant's Review (the "Landlord's Dispute Period"). If Landlord and Tenant are unable to resolve Landlord's dispute within Landlord's Dispute Period, Landlord may provide Tenant written notice within fifteen (15) days after the Landlord's Dispute Period of its election to seek resolution of the dispute by an Independent CPA (as defined below) together with a list of five (5) independent, certified public accounting firms that are not currently providing, and have not within the three (3) previous years provided, services to Landlord or Tenant or any entity Controlling, Controlled by or under common Control of Landlord or Tenant. All of the firms shall be nationally or regionally recognized firms with annual revenues in excess of Twenty Million Dollars ($20,000,000.00) during the preceding two (2) fiscal years and have experience in accounting related to commercial office buildings. In order to accommodate the foregoing, Tenant shall provide Landlord, within five (5) days after request, a complete list of all certified public accounting firms that are currently providing, or have within the three (3) previous years provided, services to Tenant or any entity Controlling, Controlled by or under common Control of Tenant. Landlord's failure to deliver a notice of dispute and such list of accounting firms within fifteen (15) days after Landlord's Dispute Period shall be deemed to be Landlord's acceptance of the results of Tenant's Review. Within thirty (30) days after receipt of the list of accounting firms from Landlord, Tenant shall choose one of the five (5) firms by written notice to Landlord, which firm is referred to herein as the "Independent CPA". The Independent CPA shall examine and inspect the records of Landlord concerning the components of Operating Expenses and/or Tax Expenses for the calendar year in question and the results of Tenant's Review and make a determination regarding the accuracy of Tenant's Review. If the Independent CPA's determination shows that Tenant has overpaid with respect to Escalation Rent, by more than five percent (5%), then Landlord shall pay all actual, reasonable costs associated with the Independent CPA's review and if less than five percent (5%) such costs shall be shared equally by Landlord and Tenant. The determination of the Independent CPA shall be final and binding upon Landlord and Tenant.

(c) Adjustments following Tenant's Review. If the Independent CPA (or. if Landlord does not dispute Tenant's Review as provided in Section 5.7(b) above, Tenant's Review) shows that the payments made by Tenant with respect to Escalation Rent for the calendar year in question exceeded the actual amount of Escalation Rent due from Tenant for such calendar year, Landlord shall at Landlord's option either (a) credit the excess amount to the next succeeding installments of estimated Escalation Rent or (b) pay the excess to Tenant within thirty (30) days after delivery of the determination of the Independent CPA (or, if Landlord does not dispute Tenant Review, after delivery of Tenant's Review), except that after the expiration or earlier termination of this Lease, Landlord shall pay the excess to Tenant within thirty (30) days after such determination. If the Independent CPA (or, if Landlord does not dispute Tenant's Review as provided in Section 5.7(b) above, Tenant's Review) shows that Tenant's payment of Escalation Rent for the calendar year was less than the actual amount of Escalation Rent due from Tenant for such calendar year, Tenant shall pay the deficiency to Landlord within thirty (30) days after delivery of the determination of the Independent CPA (or, if Landlord does not dispute Tenant Review, after delivery of Tenant's Review).

5.8 Operating of Building. Subject to operation, repair and maintenance of the Project in a manner commensurate with other Comparable Buildings and the occupancy requirements of any Landlord Entities occupying more than fifty percent (50%) of the west side of the Building, Landlord shall use commercially reasonable efforts to reduce Operating Expenses.

6. Impositions Payable by Tenant. Tenant shall pay all Impositions, if levied upon Tenant directly, prior to delinquency. If billed directly, Tenant shall pay such Impositions and concurrently present to Landlord satisfactory evidence of such payments. If any Impositions are billed to Landlord or included in bills to Landlord for Tax Expenses, then Tenant shall pay to Landlord all such amounts within thirty (30) days after receipt of Landlord's invoice therefor. If Applicable Law prohibits Tenant from reimbursing Landlord for an Imposition, but Landlord may lawfully increase the Base Rent to account for Landlord's payment of such Imposition, the Base Rent payable to Landlord shall be increased to net to Landlord the same return without reimbursement of such Imposition as would have been received by Landlord with reimbursement of such Imposition.

7. Use of Premises.

7.1 Permitted Use. The Premises shall be used solely for the Permitted Use and for no other use or purpose, subject to the limitations and restrictions of this Article 7.

7.2 No Violation of Requirements. Tenant shall not do or permit to be done, or bring or keep or permit to be brought or kept, in or about the Premises, or any other portion of the Project, anything which (a) is prohibited by, will in any way conflict with, or would invalidate any Requirements; or (b) would cause a cancellation of any insurance policy carried by Landlord or Tenant, or give rise to any defense by an insurer to any claim under any such policy of insurance, or adversely affect any insurance policy carried by Landlord (provided, that Landlord agrees that use of the Premises by Tenant for ordinary office use will not cause the cancellation of any of Landlord's insurance policies, give rise to any such defense of Landlord's insurers, or adversely affect any insurance policy carried by Landlord), or subject Landlord to any liability or responsibility for injury to any person or property; or (c) will in any way obstruct or interfere with the rights of other tenants or occupants of the Project, including, without limitation and Landlord Entity, or injure or annoy them. If Tenant does or permits anything to be done which increases the cost of any policy of insurance carried by Landlord, or which results in the need, in Landlord's reasonable judgment, for additional insurance to be carried by Landlord or Tenant with respect to any portion of the Project, then Tenant shall reimburse Landlord, upon demand, for any such additional premiums or costs, and/or procure such additional insurance, at Tenant's sole cost and expense, provided that Landlord agrees that ordinary office use of the Premises by Tenant shall not increase the cost of any policy of insurance carried by Landlord and will not result in the need for additional insurance— to be carried by Landlord. Invocation by Landlord of such right shall not limit or preclude Landlord fi prohibiting Tenant s impermissible use that gives rise to the additional insurance premium or requirement or from invoking any other right or remedy available to Landlord under this Lease. Tenant shall not bring into the Premises or any portion thereof, any furniture, fixtures and/or equipment, and/or make any Alterations to the Premises, the aggregate weight of which would exceed the specified live load capacity of the floor or floors on which the Premises is located.

7.3 Compliance with Requirements.

(a) Tenant Compliance. Tenant, at its cost and expense, shall promptly comply with all Requirements applicable to Tenant's use or occupancy of, or business conducted in, the Premises, and shall maintain the Premises and all portions thereof in compliance with all applicable Requirements; provided, however, Tenant shall not be required to make any changes to the Premises required to comply with any Requirements unless, and to the extent, necessitated by (i) Tenant's use or occupancy of, or business conducted in, the Premises other than for general office use, or (ii) any Alterations. Landlord will cooperate with Tenant as reasonably necessary in order to obtain any necessary permits or licenses in order to enable Tenant to use the Premises for the Permitted Use, at no cost to Landlord. Tenant's indemnity set forth in Section 16.2 below shall also apply with respect to any and all costs, losses, damages, injuries and liabilities related in any way to such cooperation by Landlord. Subject to this Section 7.3, Tenant shall, upon five (5) days' written notice, discontinue any use of the Premises which is declared by any governmental authority having jurisdiction over such matters to be a violation of a Requirement. The judgment of any court of competent jurisdiction, or the admission of Tenant in any action or proceeding involving Tenant, whether or not Landlord is party thereto, that Tenant is in noncompliance with any Requirement shall be conclusive of that fact. In addition, Tenant shall make all modifications to any portion of the Project outside the Premises (including modifications that are structural or capital in nature), which are triggered by any of Tenant's Alterations (excluding costs to correct violations of Requirements that existed on the Commencement Date). Notwithstanding the foregoing provisions of this Section 7.3(a) to the contrary, Tenant need not comply with any Requirements so long as Tenant is contesting the validity thereof or the applicability thereof in accordance with the remainder of this Section 7.3(a). Tenant, at its expense, after notice to Landlord, may contest by appropriate proceedings prosecuted diligently and in good faith, the validity or applicability of any Requirements with which Tenant is responsible for compliance hereunder, provided that (a) the condition which is the subject of such contest does not pose a danger to persons or property, (b) the certificate of occupancy or other occupancy permit for the Premises or the Project is neither subject to being suspended nor threatened to be suspended by reason of noncompliance or otherwise by reason of such contest, and (c) Landlord is not subject to criminal penalty or to prosecution for a crime by reason of Tenant's non-compliance or otherwise by reason of such contest.

(b) Landlord Compliance. If the Building or Building systems do not comply in all material respects with all Requirements, then Landlord shall not be liable to Tenant for any damages, but as Tenant's sole remedy, Landlord, at no cost to Tenant as to violations that exist as of the Commencement Date (including as Operating Expenses), or as part of Operating Expenses for violations that occur thereafter, shall perform such corrective work or take such other actions as may be necessary to cure any violation. Landlord shall not be responsible for any non-compliant condition that arises within the Premises due to the construction of any Alterations by Tenant or the installation of any of Tenant's furniture, fixtures, equipment or property, or in the Common Areas triggered by the specific nature of Tenant's Alterations, or that are due to Tenant's p articular use of the Premises or the particular manner in which Tenant conducts its business in the Premises. Landlord shall have the right to apply for and obtain a waiver or deferment of compliance, the right to contest any violation in good faith, including, but not limited to, the right to assert any and all defenses allowed by Requirements, and the right to appeal any decisions, judgments or rulings to the fullest extent permitted by Requirements, and Landlord's obligation to perform corrective work or take other action to cure a violation under this Section 7.3(b) shall not apply until after the exhaustion of any and all rights to appeal or contest.

7.4 No Nuisance. Tenant shall not (i) do or permit anything to be done in or about the Premises, or any other portion of the Project, which would injure or annoy, or obstruct or interfere with the rights of, Landlord or other occupants of the Project; (ii) use or allow the Premises to be used in any manner inappropriate based on uses permitted in an Owner Occupied First Class Office Building, or for any objectionable purposes, or do or permit any act which in Landlord's reasonable judgment might damage the reputation of the Project; or (iii) cause, maintain or permit any nuisance or waste in, on or about the Premises, or any other portion of the Project.

7.5 Compliance With Environmental Laws; Use of Hazardous Materials. Without limiting the generality of Section 7.3(a) above, Tenant and all other Tenant Parties shall at all times comply with all applicable Environmental Laws with respect to the use and occupancy of any portion of the Project pursuant to this Lease. Tenant and all other Tenant Parties shall not generate, store, handle, or otherwise use, or allow, the generation, storage, handling, or use of, Hazardous Materials in the Premises or transport the same through the Project, except in accordance with the Rules and Regulations and Environmental Laws. In the event of a release of any Hazardous Materials caused by, or due to the act or neglect of, Tenant or any other Tenant Parties, Tenant shall immediately notify Landlord and take such remedial actions as Landlord may direct in Landlord's reasonable discretion as necessary or appropriate to abate, remediate and/or clean up the same. If so elected by Landlord by notice to Tenant, Landlord shall take such reasonable remedial actions on behalf of Tenant at Tenant's sole cost and expense. In any event, Landlord shall have the right, without liability or obligation to Tenant, to direct and/or supervise Tenant's remedial actions and to specify the scope thereof and specifications therefor. Tenant and the other Tenant Parties shall use, handle, store and transport any Hazardous Materials in accordance with applicable Environmental Laws, and shall notify Landlord of any notice of violation of Environmental Laws which it receives from any governmental agency having jurisdiction. In no event shall Landlord be designated as the "generator" on, nor shall Landlord be responsible for preparing, any manifest relating to Hazardous Materials generated or used by Tenant or any other Tenant Parties.

7.6 Sustainable Building Operations.

(a) Operation of Building. The Building is or may in the future become certified under any one or more Green Rating Systems or operated pursuant to Landlord's sustainable building practices. Landlord's sustainability practices address whole-building operations and maintenance issues, including, but not limited to, chemical use, indoor air quality, energy efficiency, water efficiency, recycling programs, transportation management programs, exterior maintenance programs, and systems upgrades to meet green building energy, water, indoor air quality, and lighting performance standards. All construction and maintenance methods and procedures, material purchases, and disposal of waste must be in compliance with minimum standards and specifications provided to Tenant, in addition to all Applicable Laws.

(b) Tenant's Measures. Tenant shall use proven energy and carbon reduction measures, including, but not limited to, the following: using energy efficient bulbs in task lighting; installing lighting controls; implementing daylighting measures to avoid overheating interior spaces; closing shades to avoid overheating the space; turning off lights and equipment at the end of the work day; and purchasing ENERGY STAR® qualified equipment, including, but not limited to, lighting, office equipment, commercial and residential quality kitchen equipment, vending and ice machines; and purchasing products certified by the U.S. EPA's Water Sense® program.

(c) Disposal of Property. Tenant shall dispose of in an environmentally sustains manner any equipment, furnishings, or materials no longer needed by Tenant and shall recycle or re-use the same in accordance with Landlord's sustainability practices provided to Tenant. Tenant agrees to report this activity to Landlord in a format determined by Landlord. If Tenant does not comply v Landlord's sustainability practices regarding the disposal of any equipment, furnishings or materials, Landlord reserves the right to arrange for such disposal at Tenant's sole cost and expense, utilizing a contractor satisfactory to Landlord. Tenant shall pay all costs, expenses, fines, penalties or damages that may be imposed on Landlord or Tenant by reason of Tenant's failure to comply with the provisions of this Section 7.6(c).

7.7 Recycling and Waste Management. Tenant agrees, at its sole cost and expense: (a) to comply with all Applicable Laws regarding the collection, sorting, separation, and recycling of garbage, trash, rubbish and other refuse; (b) to comply with Landlord's reasonable recycling policy as part of Landlord's sustainability practices provided to Tenant, where it may be more stringent than Applicable Laws; and (c) to sort and separate its trash and recycling into such categories as are required by Applicable Laws or Landlord's sustainability practices and to place each separately sorted category of trash and recycling in separate receptacles as directed by Landlord. Landlord reserves the right to refuse to collect or accept from Tenant any trash that is not separated and sorted as required by this Section 7.7, and to require Tenant to arrange for such collection at Tenant's sole cost and expense, utilizing a contractor reasonably satisfactory to Landlord. In addition, Tenant shall pay all costs, expenses, fines, penalties or damages that may be imposed on Landlord or Tenant by a third party by reason of Tenant's failure to comply with the provisions of this Section 7.7.

8. Building Services.

8.1 Maintenance of Project. Landlord shall maintain the Common Areas, the Building Systems, all exterior landscaping, the windows in the Building, the mechanical, plumbing and electrical equipment serving the Building, the telephone cable distribution system serving the Building to the telephone terminal on each floor, the common shafts, stacks, pipes, conduits, and ducts containing such equipment and systems and the space containing them, and the structure of the Building and the roof, in reasonably good order and condition, except for ordinary wear and tear, damage by Casualty or condemnation, or damage occasioned solely by the act or omission of Tenant or any other Tenant Parties, which damage shall be repaired by Landlord at Tenant's expense. Landlord shall have the right, exercised by Landlord in its reasonable discretion, to utilize portions of the Common Areas from time to time for entertainment, displays, product shows, leasing of kiosks or such other uses that Landlord may determine are desirable.

8.2 Building-Standard Services.

(a) Subject to the terms of this Article 8, Applicable Laws, and Force Majeure Events, Landlord shall cause to be furnished to the Premises: (a) tepid and cold water to those points of supply and in volumes provided for general use of tenants in the Building; (b) electricity up to the Wattage Allowance for lighting and the operation of electrically powered office equipment; (c) HVAC during Building Standard Hours so as to cause the portions of the Premises used for ordinary business office purposes (excluding, by way of example, computer server rooms or other "hot spots" resulting from the use of machines or equipment) to be heated and/or cooled to a temperature between 68° and 76° Fahrenheit, subject to temporary interruptions due to repairs and maintenance, provided that (1) the occupancy of the Premises shall not exceed one (1) person per 140 RSF of the Premises and (2) Tenant shall

make proper use of window coverings to reduce solar load reasonably determined by Landlord during Building Standard Hours; (d) passenger elevator service in compliance with Requirements; freight elevator service subject to then applicable Building-standard procedures and scheduling lighting replacement for Building-standard lights; (g) exterior window washing as reasonably determined by Landlord consistent with Comparable Buildings; (h) subject to Section 4.4(b). janitorial service on a five (5) day per week basis (excluding Building Holidays), except Landlord shall not be required to clean portions of the Premises used for preparing or consuming food or beverages or pro\ 3 special treatment or services for above-standard tenant improvements; and (i) access control services for the Building commensurate with the level of service provided by landlords of Comparable Buildings. Tenant acknowledges and agrees that access control services, security devices and services, if any, while intended to deter crime may not in given instances prevent theft or other criminal acts and that Landlord is not providing any security services with respect to the Premises. Tenant agrees that Landlord shall not be liable to Tenant for, and Tenant waives any claim against Landlord with respect to, any loss by theft or any personal injury or death suffered or incurred by Tenant in connection with any unauthorized entry into the Premises or any other breach of security with respect to the Premises, provided that the foregoing shall not preclude Tenant from pursuing any claims against any third party who is not Landlord. Tenant shall be solely responsible for the personal safety of Tenant's officers, employees, agents, contractors, guests and invitees while any such person is in, on or about the Premises and/or the Project. Tenant shall at Tenant's cost obtain insurance coverage to the extent Tenant desires protection against such criminal acts.

(b) Tenant acknowledges that pursuant to California Public Resources Code Section 25402.10 and the regulations adopted pursuant thereto (collectively the "Energy Disclosure Requirements"), Landlord may be required to disclose information concerning Tenant's energy usage at the Building to certain third parties, including, without limitation, prospective purchasers, lenders and tenants of the Building (the "Tenant Energy Use Disclosure"). Tenant hereby (A) consents to all such Tenant Energy Use Disclosures, and (B) acknowledges that Landlord shall not be required to notify Tenant of any Tenant Energy Use Disclosure.

8.3 Interruption or Unavailability of Services. Notwithstanding anything to the contrary set forth herein, if Tenant is prevented from using, and does not use, the Premises or any portion thereof as a result of any failure of Landlord to provide utilities and services in accordance with this Article 8, then Tenant shall give Landlord written notice of such failure. If such failure continues for five (5) consecutive Business Days after Landlord's receipt of any such notice (the "Eligibility Period") and is due to Landlord's or any of its agents or contractors acts or omissions (an "Abatement Event"), then Base Rent and Escalation Rent shall be abated or reduced, as the case may be, beginning on the first day after the Eligibility Period elapses, for such time that such Abatement Event continues, either (a) in the proportion that the rentable area of the portion of the Premises that Tenant is prevented from using, and does not use, bears to the total rentable area of the Premises or (b) if Tenant is prevented from using a material portion of the Premises and if Tenant ceases using the entire Premises, then Base Rent and Escalation Rent shall be abated in its entirety. Landlord shall use its diligent efforts to promptly restore utilities and services to the extent the cause of such interruption or the means to restore same is within the reasonable control of Landlord. To the extent Tenant is entitled to abatement without regard to the Eligibility Period, because of an event covered by Article 12 or Article 13 of this Lease, then the Eligibility Period shall not be applicable.

8.4 Tenant's Use of Excess Electricity and Water; Premises Occupancy Load . Tenant shall not, without Landlord's prior consent, which shall not be unreasonably withheld: (i) install in the Premises, (A) lighting, equipment, and/or apparatus which exceeds the Wattage Allowance, or which requires a voltage other than 110 volts single-phase, (B) heat-generating or heat-sensitive equipment, or lighting other than Building-standard lights, (C) supplementary air conditioning facilities, (D) other than the Initial Alterations, Alterations that reconfigure the Premises, or fixtures or equipment therein, affecting the temperature otherwise maintained by the Building-standard HVAC system, or (E) equipment that requires a separate temperature-controlled room, or (ii) permit occupancy levels in excess of one person per 140 RSF of the Premises. If, pursuant to this Section 8,4. Landlord consent; any installation or occupancy pursuant to clauses (i) or (ii) above, Landlord may, at Landlord's election after notice to Tenant or upon Tenant's request, install supplementary air conditioning facilities in the Premises, or otherwise modify the HVAC system serving the Premises, and/or increase the supply of electricity to the Premises, in order to maintain

the temperature otherwise maintained by the Building HVAC system, and/or to supply any increase in the electricity demand of the Premises, and/or to serve any separate temperature-controlled room. Tenant shall pay the cost of any transformers, additional risers, panel boards, and all other facilities if, when and to the extent installed hereunder or required to furnish power for, and all costs of supplying and maintaining, any supplementary air conditioning facilities or modified ventilating and air conditioning equipment. The capital, maintenance and service costs of installing, supplying, and maintaining any such facilities, utilities, and modifications shall be paid by Tenant as Rent. If Tenant uses a disproportionate amount of water, Landlord, at its election and at Tenant's expense, may also install and maintain a water meter (together with all necessary wiring and related equipment) at the Premises to measure the water usage of such ventilation and air conditioning equipment, or may otherwise cause such usage to be measured by reasonable methods.

8.5 Provision of Additional Services. If Tenant desires services in amounts additional to or at times different from those set forth in Section 8.2 above, or any other services that are not provided for in this Lease, Tenant shall make a request for such services to Landlord with such advance notice as Landlord may reasonably require. If Landlord provides such services to Tenant, Tenant shall pay Landlord's charges for such services (including Landlord's then Building-standard administrative fee and such indirect costs as engineers' expenses and a reasonable allowance for wear and tear on the Building Systems) within thirty (30) days after Tenant's receipt of Landlord's invoice. Without limiting the generality of the foregoing, if Tenant desires to use heat, ventilation or air conditioning during hours other than those for which Landlord is obligated to supply such utilities pursuant to the terms of this Lease, Tenant shall give Landlord such prior notice, if any, as Landlord shall from time to time establish as appropriate, of Tenant's desired use in order to supply such utilities, and Landlord shall supply such utilities to Tenant at such hourly cost per zone to Tenant (which shall be treated as Additional Rent) as Landlord shall from time to time reasonably establish generally for the tenants of the Building; provided that the current after-hours HVAC charge is $85.00 per hour, per floor, with a four (4) hour minimum (provided that during Monday through Friday, if Tenant commences such after-hours HVAC use at 6:00 P.M., then the minimum shall only be two (2) hours). Notwithstanding any provision to the contrary contained in this Lease, Tenant shall promptly pay to Landlord, Landlord's standard charge for any services provided to Tenant, at Tenant's request, which Landlord is not specifically obligated to provide to Tenant pursuant to the terms of this Lease.

8.6 Building Amenities.

(a) From time-to-time, and subject to this Section 8.6, Landlord may offer amenities in the Building, including by way of illustration only: fitness center, theatre conference or meeting facilities, showers, dry cleaning service, food service, including access to a food court, and bicycle parking ("Building Amenities"); provided, however, for so long as a Landlord Entity is an owner or master tenant of the Project (or the west side of the Project), occupying in excess of two hundred thousand (200,000) rentable square feet, and provides any one or more Building Amenities to its employees, and provided that Tenant or any transferee under a transaction permitted under Section 17.10(b) occupies not less than one full floor of the west side of the Building, Landlord will offer such amenities to Tenant and its employees. To the extent such Building Amenities are offered, Tenant has the non-exclusive right to use the Building Amenities, subject to the following terms and conditions:

(1) Only Tenant and its designated employees (whether classified as employees or independent contractors) and, to the extent expressly provided herein, invitees (**"Permitted Users"**) shall use the Building Amenities; provided, however, Permitted Users may include Tenants invitees and licensees when accompanied by Tenant, in the theater, conference rooms, and all-hands space and food service areas).

(2) Use of the Building Amenities shall be subject to compliance with such policies and procedures as Landlord may establish in its reasonable discretion from time to time regarding such use, including without limitation, policies relating to use of equipment located therein, hours of operation, conduct and dress requirements.

(3) Landlord, in its reasonable discretion, may elect to: (i) require a written agreement and/or release from Permitted Users prior to their use of the Building Amenities, (ii) charge a reasonable fee for the Permitted Users' use of the Building Amenities (which fee, if any, shall be determined on a non-discriminatory basis as to all occupants other than any Landlord Entity), (iii) provide reasonable access controls to the Building Amenities, (iv) determine the hours of operation of the Building Amenities, and (v) include the costs and expenses to operate, clean, maintain, and manage the Building Amenities in Operating Expenses.

(4) Landlord shall have the right, in its sole discretion, to change, add to, reduce, or discontinue the Building Amenities (or the use thereof), provided that Landlord provides to Tenant the same access and rights to use the Building Amenities as it provides to any other tenant in the Building. Notwithstanding the foregoing, Landlord reserves the right to disallow the use of the Building Amenities to any person, including any Permitted User, who, in Landlord's opinion, has or will misuse the Building Amenities, including abusing the use of Amenities (for example by ordering or picking up food for others or for off premises consumption).

(5) Tenant acknowledges and agrees that use of the Building Amenities by Permitted Users is voluntary and, in consideration of the use of the Building Amenities, shall be undertaken at Permitted Users' sole risk, and that any Claims arising out of or connected with Permitted Users' use of the Building Amenities shall be subject to Sections 16.1 and 16.2 of this Lease.

(6) Building Amenities are provided on a strictly "first come, first served" basis along with other occupants of the Building (including Landlord) and any interruption, diminishment or discontinuation of Building Amenities shall not entitle Tenant to any reduction or abatement of rent, constitute an actual or constructive eviction of Tenant, result in any liability of Landlord to Tenant, or in any other way affect this Lease or Tenant's obligations hereunder.

(b) Without limiting the generality of the foregoing, subject to the terms of this Section 8.6, Landlord shall provide access to, and the use of, common food court and coffee bar service to Tenant and its invitees as a Building Amenity; provided that Tenant's use of the common food court and coffee bar service shall be subject to the following additional conditions: (1) Tenant shall utilize and pay for the common food court and coffee bar service for all employees (whether classified as employees or independent contractors) regularly occupying the Premises at the then-prevailing rate (which is currently $15.00, per day, per person, and which Landlord may change upon 30 days' prior written notice to Tenant) so long as such service is offered by Landlord; (2) on the first day of each month during such periods, Tenant shall provide Landlord a total head count of all employees, whether classified as employees or independent contractors (by name and total head count), that are regularly occupying the Premises, which will be used to calculate the total charges owed by Tenant for the common food court and coffee bar service; (3) Landlord shall invoice Tenant monthly in advance for all common food court and coffee bar service charges and Tenant shall pay such invoices within 10 days of invoicing, which charges shall not be deemed Rent for purposes of this Lease; (4) certain areas of the food court may be designated for Landlord Entity usage only and that Landlord may close the food court on a temporary basis, with prior written notice to Tenant, for Landlord Entity events; (5) Landlord shall have the right to review and audit Tenant's records to verify Tenant s head count and the charges due in connection with the common food court and coffee bar service; and (6) Landlord may invoice Tenant for any underpayment of charges due hereunder following such audit.

(c) Notwithstanding anything to the contrary in this Section 8.6, if the named Landlord or a Landlord Entity of said Landlord (i) sells its interest in the Project (or the west side of the Project), (ii) vacates the west side of the Project, and discontinues the common food court and coffee bar service, the Base Annual Rent payable under this Lease for the remainder of the then current Term shall be reduced by $2.00 per RSF.

8.7 Ground Floor Lobby and Other Renovations. Landlord agrees to engage an architect to prepare plans for a redesign of the ground floor entrance lobby to the west side of the Building as well as the ground floor and concourse floor levels to include new finishes and build out of Common Areas to be shared with Tenant (the "Initial Renovations"), which shall be consistent with an Owner Occupied First-Class Office Building. Such plans will include access control procedures for Tenant's employees, visitors and licensees. In addition, Landlord may, during the Term, renovate, improve, alter, or modify other Common Areas of the Building (the foregoing lobby and Common Area renovations being defined herein as "Renovations"). Landlord shall perform the Renovations at its sole cost (and not as an Operating Expense) in a good and workmanlike manner, in accordance with all Requirements, and shall use commercially reasonable efforts to complete the Initial Renovations prior to the Rent Commencement Date. Landlord shall have no responsibility and shall not be liable to Tenant for any injury to or interference with Tenant's business arising from the Renovations, nor shall Tenant be entitled to any compensation or damages from Landlord for loss of the use of or access to any portions of the Building resulting from the Renovations, or for any inconvenience or annoyance occasioned by such Renovations or Landlord's actions in connection with such Renovations; provided, however, Landlord will perform the Initial Renovations in a manner that does not unreasonably interfere with Tenant use or access to the Premises..

9. Maintenance of Premises. Tenant shall, at Tenant's cost and expense, perform all maintenance and repairs (including replacement) to the Premises that are not Landlord's express responsibility hereunder, and shall keep the Premises in good condition and repair, except for ordinary wear and tear, and damage by Casualty or condemnation. Tenant's repair and maintenance obligations shall include, but not be limited to, repairs to and replacement of: (a) to the extent permitted by Section 8.4 above, supplemental HVAC equipment installed by Tenant in any server room or other specialty HVAC installations installed by Tenant; (b) the electrical systems from the point of interconnection with those electrical panels exclusively serving the Premises; (c) raised flooring and floor coverings; (d) ceiling tiles; (e) interior partitions; (f) doors; (g) the interior side of demising walls; and (h) Alterations. Except as specifically set forth in this Lease, Landlord (i) has no obligation to alter, remodel, improve, repair, decorate or paint the Premises, or any part thereof, and (ii) has no obligation respecting the condition, maintenance and repair of the Premises or any other portion of the Project. Tenant hereby waives all rights, including under Subsection 1 of Section 1932 and Sections 1941 and 1942 of the California Civil Code and under any similar law now or hereafter in effect, to make repairs which are Landlord's obligation under this Lease at the expense of Landlord or to receive any setoff or abatement of Rent or in lieu thereof to vacate the Premises or terminate this Lease.

10. Alterations to Premises. All Alterations shall be made in accordance with the standard procedures, specifications, and details (including the standard for construction and quality of materials in the Project) as then established by Landlord on a reasonable and non-discriminatory basis, all applicable Requirements, and the provisions of this Article 10. In the event of any conflict between this Article 10 and the Building-standard procedures, specifications or details then in effect, the provisions of this Article 10 shall govern.

10.1 Landlord Consent: Procedure. Tenant shall not make or permit to be made any Alterations without Landlord's prior written consent, which as to any Major Alterations may be given or withheld in Landlord's sole and absolute discretion. Any request for consent to Alterations (including without limitation, the Initial Alterations) shall be accompanied by detailed plans and specifications prepared by a duly licensed architect or engineer. At the time Tenant submits its plans and specifications, Landlord will identify any Specialty Improvements that Landlord will require Tenant to remove upon the expiration or earlier termination of this Lease (and Tenant shall only be required to remove such Specialty Improvements subject to the terms of Section 10.6 of this Lease.

10.2 General Requirements.

(a) Cost. All Alterations shall be designed and performed by Tenant at Tenant's cost and expense; *provided, however,* that if any Alterations require work to be performed outside the Premises, Landlord may elect to perform such work at Tenant's expense. Notwithstanding the foregoing, Landlord shall provide Tenant with a Tenant Improvement Allowance for Alterations performed by Tenant in connection with the initial build out of the Premises for Tenant's occupancy (the "Initial Alterations"), including, in an amount not to exceed ten percent (10%) of the Tenant Improvement Allowance, for consultant fees incurred by Tenant in connection with the execution of this Lease. Any unused portion of the Tenant Improvement Allowance remaining as of the later of September 1, 2020 and thirteen (13) months after the Rent Commencement Date shall revert to Landlord and shall not be available for use by Tenant for any other purpose. Disbursement of the Tenant Improvement Allowance shall be in accordance with Section 10.2(g) of this Lease. Notwithstanding anything to the contrary herein, (i) Landlord shall be solely responsible for all costs due to the presence of Hazardous Materials on or about the Project, and (ii) the Rent Commencement Date shall be extended by one (1) day for each day Tenant's completion of the Initial Alterations is delayed due to Landlord's delay. Landlord shall endeavor to respond to any consent or approval request by Tenant within five (5) business days.

(b) Contractors. All Alterations shall be performed only by contractors, engineers or architects approved by Landlord, and shall be made in accordance with complete and detailed architectural, mechanical and engineering plans and specifications approved in writing by Landlord. Without limiting Landlord's right to disapprove Major Alterations in Landlord's sole and absolute discretion, Landlord shall not unreasonably withhold or delay its approval of any such contractors, engineers, architects, plans or specifications; *provided, however*, that Landlord may specify contractors, engineers or architects to perform work affecting the structural portions of the Project or the Building Systems. Tenant shall engage only labor that is harmonious and compatible with other labor working in the Project. In the event of any labor disturbance caused by persons employed by Tenant or Tenant's contractor, Tenant shall immediately take all actions necessary to eliminate such disturbance.

(c) Deliverables. Prior to commencement of the Alterations, Tenant shall deliver to Landlord (i) any building or other permit required by Requirements in connection with the Alterations; (ii) a copy of executed construction contract(s); and (iii) written acknowledgments from all materialmen, contractors, artisans, mechanics, laborers and any other persons furnishing to Tenant with respect to the Premises any labor, services, materials, supplies or equipment in excess of Fifty Thousand Dollars ($50,000.00) in the aggregate that they will look exclusively to Tenant for payment of any sums in connection therewith and that Landlord shall have no liability for such costs. In addition, Tenant shall require its general contractor to carry and maintain the following insurance, at no expense to Landlord, and Tenant shall furnish Landlord with satisfactory evidence thereof prior to the commencement of construction of the Alterations: (A) commercial general liability insurance with limits of not less than Five Million Dollars ($5,000,000.00) combined single limit for bodily injury and property damage, including personal injury and death, and contractor's protective liability, and products and complete d operations coverage in an amount not less than Five Million Dollars ($5,000,000.00) in the aggregates (B) commercial automobile liability insurance with a policy limit of not less than One Million Dollars ($1,000,000.00) each accident for bodily injury and property damage, providing coverage at least as broad as the Insurance Services Office (ISO) Business Auto Coverage form covering Automobile Liability code 1 "any auto," and insuring against all loss in connection with the ownership, maintenance and operation of automotive equipment that is owned, hired or non-owned; and (C) worker's compensation with statutory limits and employer's liability insurance with a limit of not less than One Million Dollars ($1,000,000.00) per occurrence. All insurance required by this Section 10.2(c) shall be issued by solvent companies qualified to do business in the State of California, and with a Best & Company rating of A:VIII or better. All such insurance policies (except workers' compensation insurance) shall (i) provide that Landlord, Landlord's managing agent, any Encumbrancer, and any other person reasonably requested by Landlord is designated as an additional insured with respect to liability arising out of work performed by or for Tenant's general contractor without limitation as to coverage afforded under such policy pursuant to an endorsement providing coverage at least as broad as ISO form CG 20 37 10 01 or its equivalent, (2) specify that such insurance is primary and that any insurance or self-

insurance maintained by Landlord shall not contribute with it, (3) provide that the insurer agrees not to cancel the policy or materially reduce coverage without at least thirty (30) days' prior written notice to all additional insureds (except in the event of a cancellation as a result of nonpayment, in which event the insurer shall give all additional insureds at least ten (10) days' prior notice), and (4) specify that bankruptcy of the contractor will not absolve or limit the liability of the insurer. Tenant shall cause Tenant's gen eral contractor to notify Landlord within ten (10) days after any material modification of any policy of insurance required under this Section. No policy maintained by contractor shall contain a deductible which is not commercially reasonable. Landlord may inspect the original policies of such insurance coverage at any time. Upon Landlord's request, Tenant shall deliver complete certified copies of such policies. Tenant's general contractor shall furnish Landlord evidence of insurance for its subcontractors as may be reasonably required by Landlord. Tenant acknowledges and agrees that Landlord may require other types of insurance coverage and/or increase the insurance limits set forth above if Landlord reasonably determines such increase is required to protect adequately the parties named as insureds or additional insureds under such insurance.

(d) Notice of Non-Responsibility. Tenant shall give Landlord at least ten (10) days' prior written notice of the date of commencement of any construction on the Premises to afford Landlord the opportunity of posting and recording appropriate notices of non-responsibility. Tenant shall comply with the requirements of Section 3110.5 of the California Civil Code as the contracting owner, to the extent applicable, and prior to commencement of construction, Tenant shall provide Landlord with evidence of compliance with said statute. Tenant acknowledges that the contractual waiver of the benefits of California Civil Code Section 3110.5 is expressly declared to be against public policy.

(e) Performance. Tenant shall promptly commence construction of Alterations, cause such Alterations to be constructed in a good and workmanlike manner and in such a manner and at such times so that any such work shall not disrupt or interfere with the use, occupancy or operations of other tenants or occupants of the Project, and complete the same with due diligence as soon as possible after commencement. All trash which may accumulate in connection with Tenant's construction activities shall be removed by Tenant at its own expense from the Premises and the Project. Landlord may require Tenant to perform construction activities that are likely to cause noise or other interruption with the conduct of normal business operations on the floor immediately below the Premises during hours outside of normal business hours and on weekends, and any additional costs attributable to such restricted hours shall be at the expense of Tenant.

(f) Additional Requirements. In addition to the foregoing, as a condition of its consent to Alterations hereunder, Landlord may impose any reasonable requirements that Landlord considers necessary or desirable, including a requirement that Tenant provide Landlord with a surety bond, a letter of credit, or other financial assurance that the cost of the Alterations will be paid when due.

(g) Disbursement of Allowance. Provided no Event of Default shall then exist under this Lease, Landlord shall disburse the Tenant Improvement Allowance to Tenant within thirty (30) days following substantial completion of the Initial Alterations provided that (i) Tenant delivers to Landlord properly executed mechanics lien releases in compliance with California Civil Code Sections 8132 through 8138, as the case may be, (ii) Tenant's Architect delivers to Landlord a certificate, in a form reasonably acceptable to Landlord, certifying that the construction of Initial Improvements in the Premises has been substantially completed, and (iii) Tenant delivers to Landlord the drawings, warranties and other documentation required by Section 10.4 hereof. If Landlord fails to disburse the Tenant Improvement Allowance within thirty (30) days following a written notice from Tenant providing all documentation required by this Lease for the disbursement of the Tenant Improvement Allowance, Tenant may offset any unpaid amounts against Rent next coming due under the Lease; provided, however, Tenant shall not be entitled to any such offset if Landlord within the thirty (30) day period hereinabove provides written notice to Tenant disputing amounts to be disbursed or reimbursed to Tenant under this Section 10.2 with reasonable detail to explain the amounts in dispute and disburses to Tenant from the Tenant Improvement Allowance amounts not in dispute.

10.3 Landlord's Right to Inspect. Landlord or its agents shall have the right (but not the obligation) to inspect the construction of Alterations, and to require corrections of faulty construction or any material deviation from the plans for such Alterations as approved by Landlord; *provided, however,* that no such inspection shall (i) be deemed to create any liability on the part of Landlord, or (ii) constitute a representation by Landlord that the work so inspected conforms with such plans or complies with any applicable Requirements, or (iii) give rise to a waiver of, or estoppel with respect to, Landlord's continuing right at any time or from time to time to require the correction of any faulty work or any material deviation from such plans. In addition, under no circumstances shall Landlord be liable to Tenant for any damage, loss, cost or expense incurred by Tenant on account of Tenant's plans and specifications, Tenant's contractors, mechanics or engineers, design or construction of any Alteration, or delay in completion o f any Alteration.

10.4 Tenant's Obligations Upon Completion . Promptly following completion of any Alterations, Tenant shall (i) furnish to Landlord "as-built" drawings and specifications in CAD format showing the Alterations as made and constructed in the Premises, (ii) cause a timely notice of completion to be recorded in the Office of the Recorder of the County of San Francisco in accordance with Civil Code Section 3093 or any successor statute, and (iii) deliver to Landlord evidence of full payment and unconditional final waivers of all liens for labor, services, or materials in excess of Fifty Thousand Dollars ($50,000.00) in the aggregate.

10.5 Repairs. If any part of the Building Systems shall be damaged during the performance of Alterations, Tenant shall promptly notify Landlord, and Landlord may elect to repair such damage at Tenant's expense. Alternatively, Landlord may require Tenant to repair such damage at Tenant's sole expense using contractors approved by Landlord.

10.6 Ownership and Removal of Alterations.

(a) Ownership. All Alterations shall become a part of the Project and immediately belong to Landlord without compensation to Tenant, unless Landlord consents otherwise in writing; *provided, however*, that equipment, trade fixtures, and movable furniture shall remain the property of Tenant.

(b) Removal. Tenant, prior to the expiration or earlier termination of this Lease shall, at Tenant's sole cost and expense: (i) remove any or all Specialty Improvements that Tenant is required to remove in accordance with Section 10,1. (ii) restore the Premises to the condition existing prior to the installation of such Specialty Improvements, and (iii) repair all damage to the Premises, the Building, or the Project caused by the removal of such Specialty Improvements. Tenant shall use a contractor reasonably approved by Landlord for such removal and repair. Notwithstanding the foregoing, Landlord may elect to waive all or any portion of such removal and restoration requirements by giving written notice of such waiver to Tenant at least nine (9) months prior to the Expiration Date or within ten (10) Business Days after any earlier termination of this Lease. If Tenant fails to remove such Specialty Improvements and perform such restoration and repair by the Expiration Date, within thirty (30) days after any earlier termination of this Lease or such other date as agreed to by the parties, then Landlord may perform such work, and Tenant shall reimburse Landlord for costs and expenses incurred by Landlord in performing such removal, restoration and repair.

10.7 Minor Alterations. Notwithstanding any provision in the foregoing to the contrary, Tenant may construct Minor Alterations in the Premises without Landlord's prior written consent, but with prior notification to Landlord. Before commencing construction of Minor Alterations, Tenant shall submit to Landlord such documentation as Landlord may reasonably require to determine whether Tenant's proposed Alterations qualify as Minor Alterations. Except to the extent inconsistent with this Section 10.7, Minor Alterations shall otherwise comply with the provisions of this Article 10. All references in this Lease to "Alterations" shall mean and include Minor Alterations, unless specified to the contrary.

10.8 Landlord's Fee. In connection with the Initial Alterations, subsequent Alterations or removing Specialty Improvements, Tenant shall pay Landlord's then standard charges for review and approval of Tenant's plans, specifications and working drawings, and a fee in the amount of $1.00 per RSF for Landlord's administration of the build out ("Landlord's Project Administration Fee"), the construction or installation of Alterations, or removal of Specialty Improvements, and restoration of the Premises to their previous condition; provided, however, with respect to the Initial Alterations, Landlord's Project Administration Fee shall be payable in lieu of any other fees, including those set forth in the following sentence. Landlord may hire third parties to review Tenant's plans, specifications and working drawings and/or to supervise the construction or installation of Alterations or removal of Specialty Improvements from the Premises, in which event Tenant shall reimburse Landlord for the reasonable, actual fees and costs charged by such third parties, provided that, upon request, Landlord will provide Tenant with an estimate of such costs and expenses before incurring such costs and expense. Tenant shall pay the amount of all fees and costs owing pursuant to this Section 10.8 within thirty (30) days after receipt from Landlord of a statement or invoice therefor.

11. Liens. Tenant shall keep the Project free from any liens arising out of any work performed or obligations incurred by or for, or materials furnished to, Tenant. Landlord shall have the right to post and keep posted on the Premises any notices permitted or required by law or which Landlord may deem to be proper for the protection of Landlord and the Project from such liens. If Tenant does not, within fifteen (15) days following the recording of notice of any such lien, cause the same to be released of record or bonded against, Landlord shall have, in addition to all other remedies provided herein and by law, the right, but not the obligation, to cause the same to be released by any means as Landlord shall deem proper, including by payment or settlement of the claim giving rise to such lien. All sums paid by Landlord for such purpose, and all expenses incurred by it in connection therewith (including, without limitation, reasonable attorneys' fees), shall be payable to Landlord by Tenant, as additional rent, on demand, together with interest at the Interest Rate from the date such expenses are incurred by Landlord to the date of the payment thereof by Tenant to Landlord. The bond permitted under this Section shall be issued by a company reasonably acceptable to Landlord.

12. Damage or Destruction.

12.1 Obligation to Repair. Except as otherwise provided in this Article 12, if any part of the Premises, or any other portion of the Project necessary for Tenant's use and occupancy of the Premises, is damaged or destroyed by Casualty, Landlord shall, within fifteen (15) days after such damage or destruction ("Casualty Discovery Date"), notify Tenant (a "Repair Notice") of the estimated time, in Landlord's reasonable judgment, required to repair such damage or destruction. If Landlord estimates that the necessary repairs can be completed within one hundred eighty (180) days after the date of the damage or destruction, and if Landlord receives insurance proceeds sufficient for such purpose (or, for so long as a Landlord Entity is both an owner and an occupant of the Building, if the uninsured portion of any necessary repairs is less than ten percent (10%) of the replacement cost the Building), then (i) Landlord shall repair the Premises, and/or the portion of the Project necessary for Tenant's use and occupancy of the Premises, to substantially the condition existing immediately before such damage or destruction (subject to Section 12.3 below), to the extent commercially reasonable, and as permitted by and subject to then applicable Requirements; (ii) this Lease shall remain in full force and effect; and (iii) to the extent such damage or destruction did not result solely from the negligence or willful act or omission of Tenant or any other Tenant Parties, Base Rent shall abate for such part of the Premises rendered unusable by Tenant in the conduct of its business during the time such part is so unusable, in the proportion that the RSF of the unusable part of the Premises bears to the total RSF of the Premises. If Landlord's estimate of the repair and restoration time is longer than one hundred eighty (180) days after the date of the damage or destruction, or if Landlord fails to timely deliver an estimated time of repair and restoration, Tenant shall have the right to terminate this Lease upon delivery of notice thereof to Landlord within ten (10) Business Days after Landlord's delivery of the Repair Notice or the expiration of Landlord's deadline to deliver the Repair Notice. If Tenant terminates this Lease pursuant to the foregoing, then this Lease shall terminate as of such damage or destruction unless Tenant has continued to use all or a portion of the Premises for the Permitted Use following the date of such damage or destruction, in which case this Lease shall terminate as of the date of Landlord's receipt of Tenant's termination notice.

12.2 Landlord's Election. If Landlord estimates that the necessary repairs cannot be completed within one hundred eighty (180) days after the date of the damage or destruction, or if insurance proceeds are insufficient for such purpose (or, for so long as a Landlord Entity is both an owner and an occupant of the Building, if the uninsured portion of any necessary repairs is less than ten percent (10%) of the replacement cost the Building), or if Landlord does not otherwise have the obligation to repair or restore the damage or destruction pursuant to Section 12.1 above, then in any such event Landlord may elect, in its notice to Tenant pursuant to Section 12.1 above, to (i) terminate this Lease or (ii) repair the Premises or the portion of the Project necessary for Tenant's use and occupancy of the Premises pursuant to the applicable provisions of Section 12.1 above. If Landlord terminates this Lease, then this Lease shall terminate as of the date of such damage or destruction unless Tenant has continued to use all or a portion of the Premises for the Permitted Use following the date of such damage or destruction, in which case this Lease shall terminate as of the date of Tenant's receipt of Landlord's termination notice. Notwithstanding anything to the contrary, either party may terminate this Lease by delivering written notice to the other party within ten (10) Business Days after Landlord's delivery of the Repair Notice or the expiration of Landlord's deadline to deliver the Repair Notice, if the Premises are damaged during the last eighteen (18) months of the Term and it will take more than six (6) months to repair or restore such damage. to replace such items. Tenant shall be responsible for insuring one hundred percent (100%) of the cost of repair and replacement of Tenant's Alterations, furniture, equipment, trade fixtures and other personal property in the Premises under this Section 12.3. If this Lease is terminated pursuant to this Article 12, then Tenant shall assign and/or pay over to Landlord any insurance proceeds from Tenant's property insurance attributable to Tenant's Alterations.

12.3 Cost of Repairs. Subject to the provisions of this Article 12. Landlord shall repair the Project and all improvements in the Premises, other than any Alterations. Tenant shall re] the Alterations, at Tenant's cost and expense. Tenant shall also be responsible for replacing all of Tenant's furniture, equipment, trade fixtures and other personal property in the Premises if Tenant elects. to replace such items. Tenant shall be responsible for insuring one hundred percent (100%) of the cost of repair and replacement of Tenant's Alterations, furniture, equipment, trade fixtures and other personal property in the Premises under this Section 12.3. If this Lease is terminated pursuant to this Article 12, then Tenant shall assign and/or pay over to Landlord any insurance proceeds from Tenant's property insurance attributable to Tenant's Alterations.

12.4 Waiver of Statutes. The respective rights and obligations of Landlord and Tenant in the event of any damage to or destruction of the Premises, or any other portion of the Project, are governed exclusively by this Lease. Accordingly, Tenant hereby waives the provisions of any law to the contrary, including California Civil Code Sections 1932(2) and 1933(4), providing for the termination of a lease upon destruction of the leased property.

13. Eminent Domain.

13.1 Effect of Taking. Except as otherwise provided in this Article 13, if all or any part of the Premises is taken as a result of the exercise of the power of eminent domain or condemned for any public or quasi-public purpose, or if any transfer is made in avoidance of such exercise of the power of eminent domain (collectively, "taken" or a "taking"), this Lease shall terminate as to the part of the Premises so taken as of the effective date of such taking. On a taking of a portion of the Premises, Landlord and Tenant shall each have the right to terminate this Lease by notice to the other given within sixty (60) days after the effective date of such taking, if the portion of the Premises taken is of such extent and nature so as to materially impair Tenant's use of the balance of the Premises or if twenty-five percent (25%) or more of the Premises is taken. Such termination shall be operative as of the effective date of the taking. Landlord may also terminate this Lease on a taking of any portion of the Project if Landlord determines in its sole discretion that (i) such taking is of such extent and nature as to render the operation of the remaining Project economically infeasible or to require a substantial alteration or reconstruction of such remaining portion, or (ii) the amount of the award payable to Landlord under Section 13.2 below, after deducting all costs and expenses incurred by Landlord in connection with such taking, is not sufficient to restore the Project (including the Premises) pursuant to Section 13.3 below. Landlord shall elect termination under clause (i) or (ii) above by notice to

Tenant given within ninety (90) days after the effective date of such taking or as soon thereafter as possible and such termination shall be operative as of the effective date of such taking. Upon a taking of the Premises which does not result in a termination of this Lease (other than as to the part of the Premises so taken), Base Rent shall thereafter be reduced as of the effective date of such taking in the proportion that the RSF of the Premises so taken bears to the total RSF of the Premises (and Tenant's Percentage Share shall be adjusted based on the rentable square foot of the Project and the Premises after the taking).

13.2 Condemnation Proceeds. All compensation awarded or received in connection with a taking shall be the property of Landlord, and Tenant hereby assigns to Landlord any and all elements of said compensation which Tenant would, in the absence of said assignment, have been entitled to receive. Specifically, and without limiting the generality of the foregoing, said assignment is intended to include: (i) the "bonus value" represented by the difference, if any, between Rent under this Lease and market rent for the unexpired Term of this Lease, (ii) the value of improvements to the Premises, whether said improvements were paid for by Landlord or by Tenant, (iii) the value of any trade fixtures paid for by Landlord, and (iv) the value of any and all other items and categories of property for which payment of compensation may be made in any such taking. Notwithstanding the foregoing, Tenant shall be entitled to receive any award of compensation for loss of or damage to the goodwill of Tenant's business (but only to the extent the same does not constitute "bonus value") and for Tenant's personal property ; fixtures belonging to Tenant and removable by Tenant upon expiration of the Lease, for any moving or relocation expenses which Tenant is entitled under the law to recover directly from the public agency which acquires the Premises, and any other amounts customarily awarded to or allocated to Tenant provided that such award and/or allocation will not diminish Landlord's award. Tenant shall have the right to make a separate claim against the condemning authority for such compensation as may be separately awarded or recoverable by Tenant, to the extent that it shall not diminish Landlord's award.

13.3 Restoration of Premises. On a taking of the Premises which does not result in a termination of this Lease (other than as to the part of the Premises so taken), Landlord and Tenant shall restore the Premises to substantially the condition existing immediately before such taking, to the extent commercially reasonable and as permitted by and subject to then applicable Requirements. Landlord and Tenant shall perform such restoration in accordance with the applicable provisions and allocation of responsibility for repair and restoration of the Premises on damage or destruction pursuant to Article 12 above, and both parties shall use any awards received by such party attributable to the Premises for such purpose.

13.4 Taking at End of Term. Notwithstanding anything to the contrary contained in this Article 13, if the Premises, or any portion thereof or of the Project, are taken within the last twelve (12) months of the Term, then Landlord shall have the right, in its sole discretion, to terminate this Lease by notice to Tenant given within ninety (90) days after the date of such taking. Such termination shall be effective on the date specified in Landlord's notice to Tenant, but in no event later than the end of such ninety (90) day period.

13.5 Tenant Waiver. The rights and obligations of Landlord and Tenant on any taking of the Premises or any other portion of the Project are governed exclusively by this Lease. Accordingly, Tenant hereby waives the provisions of any law to the contrary, including California Code of Civil Procedure Sections 1265.120 and 1265.130, or any similar successor statute.

14. Insurance.

14.1 Liability Insurance. Tenant, at its cost and expense, shall procure and maintain, from the Lease Date and throughout the Term, the following insurance:

(a) Commercial General Liability Insurance. Tenant shall maintain a policy(ies) of commercial general liability insurance written on an "occurrence" basis, with limits of liability, in the aggregate, of not less than Five Million Dollars ($5,000,000.00). Such policy(ies) shall cover bodily injury, property damage, personal injury, and advertising injury arising out of or relating (directly or indirectly) to Tenant's business operations, conduct, assumed liabilities, or use or occupancy of the Premises or the Project, and shall include all the coverages typically provided by the Broad Form Commercial General Liability Endorsement, including broad form property damage coverage (which shall include coverage for completed operations). Tenant's liability coverage shall further include premises-operations coverage, products liability coverage (if applicable), and products-completed operations coverage It is the parties' intent that Tenant's contractual liability coverage provides coverage to the maximum extent possible of Tenant's indemnification obligations under this Lease.

(b) Tenant's Workers' Compensation and Employer Liability Coverage . Tenant shall maintain workers' compensation insurance as required by law and employer's liability insurance with limits of no less than One Million Dollars ($1,000,000.00) per occurrence.

(c) Tenant's Property Insurance . Tenant shall maintain property insurance coverage extended coverage and special extended coverage insurance for all Alterations, office furniture, tr fixtures, office equipment, merchandise, and all other items of Tenant's property in, on, at, or about the Premises and the Project. Such policy shall (i) be written on the broadest available "all risk" (special causes-of-loss) policy form or an equivalent form acceptable to Landlord, (ii) include an agreed-amount endorsement for no less than the full replacement cost (new without deduction for depreciation) of the covered items and property, and (iii) include vandalism and malicious mischief coverage, and earthquake sprinkler leakage coverage. Landlord shall be named as a loss payee as its interests may appear on Tenant's property insurance policies.

(d) Business Interruption, Loss of Income, and Extra Expense Coverage. Tenant shall maintain business interruption, loss of income, and extra expense insurance covering all direct or indirect loss of income and charges and costs incurred arising out of all perils, failures, or interruptions, including any failure or interruption of Tenant's business equipment (including, without limitation, telecommunications equipment), and the prevention of, or denial of use of or access to, all or part of the Premises or the Project, as a result of those perils, failures, or interruptions. The business interruption, loss of income, and extra expense coverage shall provide coverage for no less than twelve (12) months and shall be carried in amounts necessary to avoid any coinsurance penalty that could apply. The business interruption, loss of income and extra expense coverage shall be issued by the insurer that issues Tenant's property insurance under Section 14.1(c) above.

(e) Other Tenant Insurance Coverage. Not more often than once every year and upon not less than thirty (30) days' prior written notice, Landlord may require Tenant, at Tenant's sole cost and expense, to procure and maintain other types of insurance coverage and/or increase the insurance limits set forth above if Landlord determines such increase is required to protect adequately the parties named as insureds or additional insureds under such insurance and such insurance is then customarily being required of landlords of Comparable Buildings.

14.2 Form of Policies. The minimum limits of policies and Tenant's procurement and maintenance of such policies described in Section 14.1 above shall in no event limit the liability of Tenant under this Lease. All insurance required by this Article 14 shall be issued on an occurrence basis by solvent companies qualified to do business in the State of California, and with a Best & Company rating of A:VIII or better. Any insurance policy under this Article 14 may be maintained under a "blanket policy," insuring other parties and other locations, so long as the amount and coverage required to be provided hereunder is not thereby diminished. No policy maintained by

Tenant under this Article 14 shall contain a deductible which is not commercially reasonable. Tenant shall provide Landlord a certificate of each policy of insurance required hereunder certifying that the policies contain the provisions required. Tenant shall deliver such certificates to Landlord within thirty (30) days after the Lease Date, but in no event later than the date that Tenant or any other Tenant Parties first enter the Premises and, upon renewal, not fewer than ten (10) days prior to the expiration of such coverage. In addition, Tenant shall deliver to Landlord a copy of each policy of insurance required hereunder upon Landlord's request. Tenant shall (1) add Landlord, Landlord's managing agent, any Encumbrancer, and any other person reasonably requested by Landlord as an additional insured pursuant to an endorsement providing coverage at least as broad as ISO form CG 20 37 10 01 or its equivalent on Tenant's liability insurance policies (except workers' compensation insurance), and (2) ensure that such insurance is primary and that any insurance or self-insurance maintained by Landlord shall not contribute with it. Tenant shall endeavor to cause all of its insurance policies to provide that the insurer cannot cancel such policy or materially reduce coverage without at least thirty (30) days' prior written notice to all additional insureds (except in the event of a cancellation as a result of nonpayment, in which event the insurer shall give all additional insureds at least ten (10) days' prior notice). Tenant shall notify Landlord within ten (10) days after any material reduction of any policy of insurance required under this Article. Any self insurance or self insured retention provisions under, or with respect to, any insurance policies maintained by Ter ' hereunder shall be subject to Landlord's prior written approval, which Landlord may give or withhold its reasonable discretion.

14.3 Vendors' Insurance . In addition to any other provision in this Lease (including, without limitation, Article 10 above), Landlord may require Tenant's vendors and contractors to carry such insurance as Landlord shall deem reasonably necessary.

15. Waiver of Subrogation Rights. Notwithstanding anything to the contrary in this Lease, each party, for itself and, without affecting any insurance maintained by such party, on behalf of its insurer, releases and waives any right to recover against the other party, including officers, employees, agents and authorized representatives (whether in contract or tort) of such other party, that arise or result from any and all loss of or damage to any property of the waiving party located within or constituting part of the Building, including the Premises, to the extent of amounts payable under a standard ISO Commercial Property insurance policy, or such additional property coverage as the waiving party may carry (with a commercially reasonable deductible), whether or not the party suffering the loss or damage actually carries any insurance, recovers under any insurance or self-insures the loss or damage. Each party shall have their property insurance policies issued in such form as to waive any right of subrogation as might otherwise exist. This mutual waiver is in addition to any other waiver or release contained in this Lease. Notwithstanding the foregoing, the waivers and release provided in this Article 15 shall not be applicable to any costs incurred by Landlord for repairs that are chargeable to Tenant under this Lease attributable to the gross negligence or willful misconduct of any agent or third party contractor while accessing portions of the Building other than the Premises, with the intent that the foregoing exception to the waivers and release provided in this Article 15 is not intended to detract from or overrule a waiver of subrogation provision in a party's insurance policy with its insurer, and is intended solely as a cost shifting provision that allocates to Tenant the cost of a repair arising from the gross negligence or willful misconduct of any agent or third party contractor of Tenant while accessing portions of the Building other than the Premises,.

16. Tenant's Waiver of Liability and Indemnification.

16.1 Waiver and Release. Subject to the terms of this Section 16.1, to the fullest extent permitted by Requirements, except for Claims Landlord has expressly agreed to indemnify Tenant for under Section 16.2(a)(ii) below, neither Landlord nor any of Landlord's employees officers, directors, shareholders, partners, and/or members (together, the "Indemnitees") shall be liable to Tenant, and Tenant waives as against and releases Landlord and the other Indemnitees from, any and all Claims for loss or damage to any property or injury, illness or death of any person in, upon or about the Premises and/or any other portion of the Project, arising at any time and from any cause whatsoever. The foregoing waiver shall apply to (i) Claims caused, in whole or in part, by any third party (including any tenant or other occupant of the Project, or Landlord's agents, contractors, licensees, invitees or representatives);

(ii) Claims caused in whole or in part by any active or passive act, error, omission or ordinary negligence, of Landlord or any other Indemnitee; (iii) Claims in which liability without fault or strict liability is imposed, or sought to be imposed, on Landlord or any other Indemnitee; and (iv) Claims caused, in whole or in part, by earthquake or earth movement, gas, fire, oil, electricity or leakage from the roof, walls, windows, basement or other portion of the Premises or Project. Notwithstanding the foregoing, the foregoing waiver shall not apply: to the extent that a Claim against an Indemnitee was proximately caused by such Indemnitee's fraud, gross negligence, willful injury to person or property, violation of Requirements or breach of this Lease. In that event, however, the waiver under this Section 16.1 shall remain valid for all other Indemnitees. The provisions of this Section 16.1 shall survive the expiration or earlier termination of this Lease until all Claims within the scope of this Section 16.1 are fully, finally, and absolutely barred by the applicable statutes of limitations. Tenant acknowledges that this Section was negotiated with Landlord, that the consideration for it is fair and adequate, and that Tenant had a fair opportunity to negotiate, accept, reject, modify or alter it.

16.2 Indemnification.

(a) Indemnity.

(i) To the fullest extent permitted by Requirements, Tenant shall indemnify, defend, protect and hold Landlord and the other Indemnitees harmless of and from third party Claims to the extent arising out of or in connection with the following (including, but not limited to, Claims brought by or on behalf of employees of Tenant, with respect to which Tenant waives, for the benefit of the Indemnitees, any immunity to which Tenant may be entitled under any worker's compensation laws): (a) the making of Alterations, or (b) injury to or death of persons or damage to property occurring or resulting directly or indirectly from: (i) the use or occupancy of, or the conduct of business in, the Premises; (ii) damage to the Building Systems of the Project caused by Tenant; (iii) the use, generation, storage, handling, release, transport, or disposal by Tenant or any other Tenant Parties of any Hazardous Materials in or about the Premises or any other portion of the Project; (iv) any other occurrence or condition in or on the Premises; and (v) negligent acts or omissions of Tenant or any other Tenant Parties in or about any portion of the Project. The foregoing indemnification shall not apply in favor of any particular Indemnitee to the extent that a Claim was proximately caused by the willful misconduct or gross negligence of such Indemnitee. In that event, however, the indemnification under this Section 16.2(a)(i) shall remain valid for all other Indemnitees.

(ii) To the fullest extent permitted by Requirements, Landlord shall indemnify, defend, protect and hold Tenant harmless of and from third party Claims to the extent arising out of or in connection with any occurrence, accident or injury within the Common Areas caused by the negligence or willful misconduct of Landlord, including, but not limited to, Claims brought by or on behalf of employees of Landlord, with respect to which Landlord waives, for the benefit of Tenant, any immunity to which Landlord may be entitled under any worker's compensation laws. The foregoing indemnification shall not apply in favor of Tenant to the extent that a Claim was proximately caused by the willful misconduct or gross negligence of Tenant or any Tenant Party.

(b) Counsel. Each party shall have the right to reasonably approve legal counsel proposed by the other party for defense of any Claim indemnified against hereunder or under any other provision of this Lease.

(c) Survival. The provisions of this Section 16.2 shall survive the expiration or earlier termination of this Lease until all Claims within the scope of this Section 16.2 are fully, finally, and absolutely barred by the applicable statutes of limitations.

17. Assignment and Subletting.

17.1 Compliance Required. Tenant shall not, without the prior written consent of Landlord, which consent shall not be unreasonably withheld or delayed: (a) assign, mortgage, pledge, hypothecate, encumber, or permit any lien to attach to, or otherwise transfer, this Lease or any interest hereunder, by operation of law or otherwise; (b) sublet the Premises or any part thereof; or (c) permit the use of the Premises by any persons other than Tenant and Tenant Parties (each of the foregoing is referred to herein as a Transfer and are collectively referred to as "Transfers" and any person to whom any Transfer is made or sought to be made is referred to as a "Transferee"). Any Transfer made without complying with this Article 17 shall, at Landlord's option, be null, void and of no effect. Tenant acknowledges that the limitations on assignment and subletting contained in this Article 17 are expressly authorized by California Civil Code Section 1995.010, *etseq.,* and are fully enforceable by Landlord against Tenant. For purposes of this Lease, the term Transfer shall include: (i) if Tenant is a partnership the withdrawal or change, voluntary, involuntary or by operation of law, of a general partner or a majority of the partners, or a transfer of a majority of partnership interests, or the dissolution, merger, consolidation or other reorganization of the partnership, or the sale or other transfer of more than an aggregate of fifty percent (50%) of the partnership interests of Tenant; (ii) if Tenant is a limited liability company, the withdrawal or change, voluntary, involuntary, or by operation of law, of a majority of members, or a transfer of a majority of the membership interests, or the dissolution, merger, consolidation or other reorganization of the limited liability company; and (iii) if Tenant is a corporation, the dissolution, merger, consolidation or other reorganization of Tenant, or the sale or other transfer of more than an aggregate of fifty percent (50%) of the voting shares of Tenant (other than sales on a public stock exchange), or the sale, mortgage, hypothecation or pledge of more than an aggregate of fifty percent (50%) of Tenant's net assets.

17.2 Request by Tenant; Landlord Response. If Tenant desires to effect an assignment or sublease, Tenant shall submit to Landlord a request for consent together with the identity of the parties to the transaction, the nature of the Transferee's proposed business use for the Premises, the portion of the Premises to be Transferred (the "Subject Space"); the proposed documentation for and terms of the transaction, and all other information reasonably requested by Landlord concerning the proposed transaction and the parties involved therein, including certified financial information for the two (2)-year period immediately preceding Tenant's request, credit reports, the business background and references regarding the Transferee, an opportunity to meet and interview the Transferee, and Tenant's good faith estimate of the amount of Transfer Premium (as defined below), if any, payable in connection with the proposed transaction. Within twenty (20) days after the later of such interview or the receipt of all such information required by Landlord, or within thirty (30) days after the date of Tenant's request to Landlord if Landlord does not request additional information or an interview, Landlord shall have the right, by notice to Tenant, to: (i) consent to the assignment or sublease, subject to the terms of this Article 17; (ii) decline to consent to the assignment or sublease; or (iii) in the case of a subletting, sublet from Tenant the portion of the Premises proposed to be sublet on the terms and conditions set forth in Tenant's request to Landlord, unless the rent terms exceed the Base Rent allocable to the portion of the Premises proposed to be subleased payable by Tenant hereunder, in which event only such Base Rent shall be payable by Landlord under such subletting. If Landlord consents to a Transfer, but the execution of a written agreement evidencing such Transfer does not occur within ninety (90) days after the date of such consent, or if the terms of the proposed Transfer materially change from those set forth in Tenant's request for Landlord's consent, Tenant shall submit a new request for Landlord's consent, and the Subject Space shall again be subject to Landlord's rights under this Section 17.2.

17.3 Standards and Conditions for Landlord Approval.

(a) Reasons to Withhold Consent. Without limiting the grounds on which it may be reasonable for Landlord to withhold its consent to an assignment or sublease, Tenant acknowledges that Landlord may reasonably withhold its consent in the following instances: (i) if there exists an Event of Default; (ii) if the Transferee is a governmental or quasi-governmental agency, foreign or domestic; (iii) if the Transferee is an existing tenant in the Building and Landlord has comparable space available in the Project to lease to such existing tenant; (iv) if Tenant has not demonstrated to Landlord's reasonable satisfaction that the Transferee is financially responsible, with

sufficient Net Worth and net current assets, to meet the financial and other obligations of this Lease or the sublease, as applicable; (v) if, in Landlord's reasonable judgment, the Transferee's use and/or occupancy of the Premises would (1) violate any of the terms of this Lease or the lease of any other tenant in the Project, (2) not be comparable to and compatible with the types of use by other tenants in the Building, (3) fall within any category of use for which Landlord would not then lease space in the Building under its leasing guidelines and policies then in effect, (4) require any Alterations which would reduce the value of the existing leasehold improvements in the Premises, or (5) result in increased density per floor or require increased services by Landlord over the levels permitted or required hereunder, respectively; (vi) in the case of a sublease, it would result in more than three (3) occupancies in any floor of the Premises; (vii) if in Landlord's reasonable judgment the business reputation of the Transferee is not consistent with that of other tenants of the Building; or (viii) the Transferee is negotiating with Landlord or has negotiated with Landlord during the six (6) month period immediately preceding the date Landlord receives Tenant's request for consent, to lease space in the Building. If Landlord consents to an assignment or sublease, the terms of such assignment or sublease transaction shall not be modified, and, in the case of a sublease, Tenant shall not voluntarily terminate the sublease except pursuant to an express right therein or due to the subtenant's default, without Landlord's prior written consent pursuant to this Article 17. Landlord's consent to an assignment or subletting shall not be deemed consent to any subsequent assignment or subletting.

(b) Waiver. Notwithstanding any contrary provision of law, including, without limitation, California Civil Code Section 1995.310, the provisions of which Tenant hereby waives, Tenant shall have no right to terminate this Lease, and no right to damages for breach of contract, in the event Landlord is determined to have unreasonably withheld or delayed its consent to a proposed sublease or assignment, and Tenant's sole remedy in such event shall be to obtain a determination reversing the withholding of such consent or finding such consent to be deemed given by virtue of such unreasonable delay.

17.4 Costs and Expenses. As a condition to the effectiveness of any Transfer under this Article 17, Tenant shall pay to Landlord its then specified processing fee and all reasonable costs and expenses, including reasonable attorneys' fees and disbursements, actually incurred by Landlord in evaluating Tenant's requests for consent or notifications for Transfer, whether or not Landlord consents or is required to consent to a Transfer, which shall not exceed $3,500 if Tenant uses Landlord's standard form of consent agreement without material change. Tenant shall pay the processing fee with Tenant's request for Landlord's consent under Section 17.2. Tenant shall also pay to Landlord all reasonable and actual costs and expenses incurred by Landlord due to a Transferee taking possession of the Premises, including freight elevator operation, security service, janitorial service and rubbish removal.

17.5 Payment of Transfer Premium and Other Consideration.

(a) Transfer Premium. If Landlord consents to a Transfer, Tenant shall pay to Landlord, fifty percent (50%) of any Transfer Premium derived by Tenant from such Transfer. The term " **Transfer Premium**" means all rent, additional rent or other consideration paid by such Transferee (including, but not limited to, payments in excess of fair market value for Tenant's assets, trade fixtures, equipment and other personal property) for the Subject Space in excess of the Rent payable by Tenant under this Lease (on a monthly basis during the Term, and on a per rentable square foot basis, if less than all of the Premises is Transferred), after deducting Permitted Transfer Costs. As used herein, "**Permitted Transfer Costs**" means the actual costs incurred and paid by Tenant for (i) any leasing commissions (not to exceed commissions typically paid in the San Francisco office market at the time of such Transfer), (ii) reasonable legal fees and expenses in connection with the Transfer, (iii) any Alterations to the Subject Space made by Tenant in connection with the Transfer and any free rent, and (iv) marketing expenses and any other reasonable out-of-pocket expenses reasonably incurred by Tenant in connection with the Transfer, provided that Tenant shall furnish Landlord with copies of bills or other documentation substantiating such costs. For purposes of calculating the Transfer Premium when the Transfer Premium is not paid to Tenant in a lump sum, all Permitted Transfer Costs shall be amortized on a straight-line basis, without interest, over the relevant term of the Transfer. If part of the consideration for such Transfer shall be payable other than in cash, Landlord's share of such non-cash

consideration shall be in such form as is reasonably satisfactory to Landlord. If Tenant shall enter into multiple Transfers, Transfer Premium payable to Landlord shall be calculated independently with respect to each Transfer Payment of the Transfer Premium payable to Landlord hereunder shall be made (1) in the case of a Transfer other than a sublease, within ten (10) days after Tenant or the prior owners of Tenant, as the case may be, receive(s) the consideration described above, and (2) in the case of a sublease, on the first day of each month during the term of such agreement, the Transferee shall pay directly to Landlord fifty percent (50%) of the amount by which the rent, additional rent and other consideration due from the Transferee to Tenant under such lease for such month (less any Permitted Transfer Costs, as amortized on a monthly, straight-line basis over the term of such agreement) exceeds the Rent payable by Tenant under this Lease with respect to the Subject Space for such month (calculated on a per rentable square foot basis). In the case of an assignment, Tenant and the assignee shall be jointly and severally liable for payment of any Transfer Premium. Tenant shall furnish upon Landlord's request, a complete statement, certified by an independent certified public accountant, or Tenant's chief financial officer, setting forth in detail the computation of any Transfer Premium Tenant has derived and will derive from such Transfer.

(b) Audit. Upon Landlord's request, Tenant shall provide Landlord with reasonable documentation of Tenant's calculation of the Transfer Premium. Landlord or its authorized representatives shall have the right at all reasonable times with advance written notice to Tenant to audit the books, records and papers of Tenant relating to an assignment or sublease, and shall have the right to make copies thereof, subject to the confidentiality obligations set forth herein and during normal business hours, and provided that no period may be audited more than once. If the Transfer Premium respecting any Transfer shall be found to be understated, Tenant shall pay the deficiency within thirty (30) days after demand, and if understated by more than five percent (5%), Tenant shall pay the costs of Landlord's audit.

17.6 Assumption of Obligations; Further Restrictions on Subletting. Each assignee shall, concurrently with any assignment, assume all obligations of Tenant under this Lease. Each sublease shall be made subject to this Lease and all of the terms, covenants and conditions contained herein. The surrender of this Lease by Tenant, or a mutual cancellation thereof, or the termination of this Lease in accordance with its terms, shall not work a merger and shall, at the option of Landlord, terminate all or any existing subleases or operate as an assignment to Landlord of any or all such subleases. No sublessee (other than Landlord) shall have the right further to sublet. Any assignment by a sublessee of its sublease shall be subject to Landlord's prior consent in the same manner as an assignment by Tenant. No sublease, once consented to by Landlord, shall be modified or terminated (other than pursuant to the express terms thereof) without Landlord's prior consent. No assignment or sublease shall be binding on Landlord unless the transferee delivers to Landlord a fully executed counterpart of the assignment or sublease which contains (i) in the case of an assignment, the assumption by the assignee as required under this Section, or (ii) in the case of a sublease, recognition by the sublessee, of the provisions of this Section 17.6, and which assignment or sublease shall otherwise be in form and substance satisfactory to Landlord, but the failure or refusal of a transferee to deliver such instrument shall not release or discharge such transferee from the provisions and obligations of this Section 17.6, and shall constitute an Event of Default.

17.7 Landlord's Recapture Right. Notwithstanding anything to the contrary contained in this Lease, Landlord shall have the following option with respect to any assignment, sublease or other transfer (other than to a Related Company) proposed by Tenant:

(a) Recapture Notice. By written notice to Tenant (the **"Recapture Notice"**) within thirty (30) days after receiving Tenant's written request for consent to any Transfer to recapture the Subject Space, Landlord may elect to terminate this Lease with respect to the Subject Space. A timely Recapture Notice terminates this Lease with respect to the Subject Space, effective as of the effective date of transfer specified in Tenant's written request to Landlord for consent to any Transfer. After such termination, Landlord may (but shall not be obligated to) enter into a lease with the party to the Transfer proposed by Tenant.

(b) Recalculation of Base Rent. To determine the new Base Rent under this Lease in the event Landlord recaptures the Subject Space without terminating this Lease as to all of the Premises, the original Base Rent under the Lease shall be multiplied by a fraction, the numerator of which is the RSF of the Premises retained by Tenant after Landlord's recapture and the denominator of which is the total RSF of the Premises before Landlord's recapture. Additional Rent and the Deposit Amount, to the extent that it is calculated on the basis of the RSF of the Premises, shall be reduced to reflect Tenant's proportionate share based on the RSF of the Premises retained by Tenant after Landlord's recapture. This Lease as so amended shall continue thereafter in full force and affect. Either party may require a written confirmation of the amendments to this Lease necessitated by Landlord's recapture of the Subject Space. If Landlord recaptures the Subject Space, Landlord shall, at Tenant's sole expense, construct any partitions required to segregate the Subject Space from the remaining Premises retained by Tenant.

17.8 No Release. No assignment or sublease shall release Tenant from its obligations under this Lease, whether arising before or after the assignment or sublease. The acceptance of Rent by Landlord from any other person shall not be deemed a waiver by Landlord of any provision of this Article 17. On an Event of Default by any assignee of Tenant in the performance of any of the terms, covenants or conditions of this Lease, Landlord may proceed directly against Tenant without the necessity of exhausting remedies against such assignee. No consent by Landlord to any further assignments or sublettings of this Lease, or to any modification, amendment or termination of this Lease, or to any extension, waiver or modification of payment or any other obligations under this Lease, or any other action by Landlord with respect to any assignee or sublessee, or the insolvency, bankruptcy or Event of Default of any such assignee or sublessee, shall affect the continuing liability of Tenant for its obligations under this Lease, and Tenant waives any defense arising out of or based thereon, including any suretyship defense of exoneration. Landlord shall have no obligation to notify Tenant or obtain Tenant's consent with respect to any of the foregoing matters.

17.9 No Encumbrance; No Change in Permitted Use. Notwithstanding anything to the contrary contained in this Article 17, (i) Tenant shall have no right to encumber, pledge, hypothecate or otherwise transfer this Lease, or any of Tenant's interest or rights hereunder, as security for any obligation or liability of Tenant, and (ii) Tenant shall have no right to propose (and Landlord shall have no obligation to consider or approve) any assignment or subletting which entails any change in the Permitted Use. Without limiting the generality of the foregoing, Tenant expressly agrees that Tenant shall not, and Tenant has no right to, encumber, pledge, or hypothecate any Alterations, including fixtures.

17.10 Right to Assign or Sublease Without Landlord's Consent.

(a) Sale of Stock on Public Exchange. Notwithstanding the provisions of Section 17.1 above, the provisions of this Article shall not apply to (i) the transfer of stock in Tenant so long as Tenant is a publicly traded corporation, which stock is listed on a national or regional stock exchange or over the counter stock exchange, or (ii) the issuance of stock in Tenant in a public offering.

(b) Permitted Transfers. Notwithstanding the provisions of Section 17.1 above, Tenant shall have the right, without Landlord's consent, but with prior notice to Landlord, to assign this Lease to, or sublease the Premises to, or permit occupancy of the Premises by, a Related Company; provided that (i) the original Tenant named herein or a Related Company shall be the assignor or sublessor; (ii) at least thirty (30) days prior to the effective date of the assignment or sublease, Tenant shall furnish Landlord with the name of the transferee and a written certification from an officer of Tenant certifying that the assignment or sublease qualifies as a transaction under this Section 17.10(b); (iii) the assignment or sublease under this Section 17.10(b) is made for a good faith operating business purpose and not as a subterfuge to evade the obligations and restrictions relating to transfers set forth in this Article 17; (iv) the proposed transferee's use of the Premises shall be the Permitted Use; (v) in the case of an assignment, Tenant shall deliver to Landlord, prior to the effective date of the assignment, an agreement, in form reasonably acceptable to Landlord, evidencing the assignment and assumption by the assignee of Tenant's obligations under this Lease; and (vi) in the case of a sublease, Tenant shall deliver to Landlord, prior to the effective date of the sublease, an agreement, in form reasonably acceptable to Landlord, evidencing the assumption by the subtenant of Tenant's obligations under this Lease with respect to the subleased premises. The effectuation of any transaction under this Section 17.10(b) shall be subject to Sections 17.4, 17.6, 17.8 and 17.9 above, but shall not be subject to compliance with Sections 17.5 or Section 17.7 above.

18. Rules and Regulations. Tenant shall observe and comply, and shall cause the other Tenant Parties to observe and comply, with the Rules and Regulations, and, after notice thereof, with all reasonable, non-discriminatory modifications and additions thereto from time to time promulgated in writing by Landlord. Landlord shall not be responsible to Tenant, or any of the other Tenant Parties, for noncompliance with any Rules and Regulations by any other tenant, sublessee, or other occupant of the Project and their respective employees, agents, contractors, licensees, invitees, representatives, officers, directors, shareholders, partners, and members. Landlord shall enforce the Rules and Regulations against all occupants of the Project in a nondiscriminatory manner.

19. Entry of Premises by Landlord; Modification to Common Areas.

19.1 Entry of Premises. Subject to the conditions below and Tenant's reasonable security requirements and procedures, including without limitation, the requirement to execute Tenant's commercially reasonable nondisclosure agreement (provided that janitorial or maintenance contractors employed by Landlord in the operation and maintenance of the Building may execute a single commercially reasonable nondisclosure agreement covering all of their employees and agents who will have access to the Premises), Landlord and its authorized agents, employees, and contractors may, upon not less than one (1) Business Days' prior notice thereof to Tenant (except in the event of an emergency, regularly scheduled maintenance or janitorial services, or in response to a specific Tenant request for service), enter the Premises at reasonable times, to: (i) inspect the same; (ii) exhibit the same to prospective purchasers, Encumbrancers or tenants; (iii) supply any services to be provided by Landlord hereunder; (iv) post notices of nonresponsibility or other notices permitted or required by law; and (v) make repairs, improvements or alterations, or perform maintenance in or to, the Premises or any other portion of the Project, including the Building Systems. Landlord may also grant access to the Premises to government or utility representatives and bring and use on or about the Premises such equipment as Landlord deems reasonably necessary to accomplish the purposes of Landlord's entry under this Section 19.1. Landlord shall use commercially reasonable efforts to minimize any interference with the operation of Tenant's business at the Premises to the extent reasonably practicable during any entry by Landlord or Landlord's agents, employees, and contractors upon the Premises. Landlord shall have and retain keys with which to unlock all of the doors in or to the Premises, and Landlord shall have the right to use any and all means which Landlord may deem proper in an emergency in order to obtain entry to the Premises, including secure areas. Notwithstanding the foregoing, if Landlord requires entry to the Premises (other than in event of an emergency) with any third parties other than those persons who provide routine or regularly scheduled services or property management services to the Building, Landlord shall notify Tenant as required by this Section and Tenant reserves the right (to be exercised at the time of Landlord's notice of such entry) to designate a representative of Tenant to accompany Landlord and such third parties during such entry upon the Premises.

19.2 Modifications to Common Areas. Landlord shall have the right, in its sole discretion, from time to time, to: (i) make changes to the Common Areas and/or the Project, including without limitation, changes in the location, size, shape and number of any Common Area amenity installation or improvement, such as the driveways, entrances, Parking Facility, ingress, egress, direction of driveways, entrances, hallways, corridors, lobby areas and walkways; (iii) close temporarily any of the Common Areas and/or the Project for maintenance purposes so long as reasonable access to the Premises remains available; (iv) add additional buildings and improvements to the Common Areas and/or the Project (including, without limitation, elevators, stairways and stairwells, etc.) or remove existing buildings or improvements therefrom; (v) use the Common Areas and/or the Project while engaged in making additional improvements, repairs or alterations to the Project or any portion thereof; and (vi) do and perform any other acts, alter or expand, or make any other changes in, to or with respect to the Common Areas and/or the Project as Landlord may, in its sole discretion, deem to be appropriate; *provided, however,* Tenant shall at all times have reasonable access to the Premises. Without limiting the foregoing, Landlord reserves the right from time to time to install, use, maintain, repair, relocate and replace pipes, ducts, conduits, wires, and appurtenant meters and equipment for service to the Premises or to other parts of the Project which are above the ceiling surfaces, below the floor surfaces, within the walls and in the central core areas of the Project that are located within the Premises or located elsewhere in the Project. Landlord shall use commercially reasonable efforts to minimize any interference with the operation of Tenant's business at the Premises to the extent reasonably practicable during the performance

of such work. In addition, Landlord shall have the right to utilize portions of the Common Areas from time to time for entertainment, displays, product shows, leasing of kiosks or such other uses that in Landlord's sole judgment tend to attract the public. Upon ninety (90) days' prior written notice to Tenant, Landlord also shall have the right to modify Tenant's signage on the building directory as set forth in Section 31.1 to conform to any alterations to the overall design for the Project made by Landlord.

19.3 Waiver of Claims. Tenant acknowledges that Landlord, in connection with Landlord's activities under this Article 19, may, among other things, erect scaffolding or other necessary structures in the Premises and/or the Project, limit or eliminate access to portions of the Project, including portions of the Common Areas, or perform work in the Premises and/or the Project, which work may create noise, dust, vibration, odors or leave debris in the Premises and/or the Project. Landlord shall use commercially reasonable efforts to minimize any interference with the operation of Tenant's business at the Premises to the extent reasonably practicable during any entry by Landlord or Landlord's agents, employees, and contractors upon the Premises. Without limiting the generality of Section 15 above and Landlord's obligation to use such commercially reasonable efforts to minimize such interference, so long as Tenant has access to the Premises at all times, Tenant hereby agrees that Landlord's activities under this Article 19 shall in no way constitute an actual or constructive eviction of Tenant nor entitle Tenant to any abatement of Rent. Without limiting Section 15 above, Section 22.2 below or Landlord's obligation to use commercially reasonable efforts to minimize any interference with the operation of Tenant's business at the Premises to the extent reasonably practicable as set forth above, so long as Tenant has access to the Premises at all times and Tenant's use of the Premises has not been unreasonably diminished, Landlord shall not be liable to Tenant for any direct or indirect injury to or interference with Tenant's business arising from Landlord's activities under this Article 19, nor shall Tenant be entitled to any compensation or damages from Landlord for loss of the use of the whole or any part of the Premises or loss of use of Tenant's personal property or improvements resulting from Landlord's activities hereunder, or for any inconvenience or annoyance occasioned by such activities, unless such damages were caused by Landlord's gross negligence or willful misconduct.

20. Default and Remedies.

20.1 Events of Default. The occurrence of any of the following events shall 11 constitute an **"Event of Default"** by Tenant:

(i) Tenant fails to pay any Rent when due, unless such failure is cured within three (3) Business Days after notice of such default from Landlord to Tenant; *provided however,* an Event of Default shall occur hereunder without any obligation of Landlord to give any notice if Tenant fails to make any payment within three (3) Business Days after Landlord has given Tenant written notice under this Section 20.1(i) on more than one (1) occasion during the twelve (12)-month interval preceding such failure by Tenant; or

(ii) Tenant fails to obtain Landlord's prior written consent to any Transfer in violation of Article 17; or

(iii) Tenant fails to deliver evidence of insurance, an estoppel certificate, or financial statements to Landlord within the time periods required by Article 14 and Sections 23.1 and 33.20, respectively, unless such failure to delivery is cured within five (5) Business Days of Landlord's notice of such default to Tenant; or

(iv) Tenant fails to remove any lien or encumbrance arising out of any work performed, materials furnished or obligations incurred by Tenant within the time period required by Article 11, unless such failure is cured within five (5) Business Days of Landlord's notice of such default to Tenant; or

(v) Tenant fails to observe or perform any other agreement or covenant of this Lease, and such failure continues for more than thirty (30) days after written notice from Landlord; provided that if such failure cannot reasonably be cured within a thirty (30)-day period, an Event of Default shall not be deemed to have occurred if Tenant promptly commences such cure within said period of thirty (30) days, thereafter diligently pursues and completes such cure within sixty (60) days after Landlord's written notice; or

(vi) Tenant (i) files, or consents by answer or otherwise to the filing against it of, a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction, (ii) makes an assignment for the benefit of its creditors, or (iii) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers with respect to such person or entity or with respect to any substantial part of their respective property; or

(vii) Without consent by Tenant, a court or government authority enters an order, and such order is not vacated within thirty (30) days, (i) appointing a custodian, receiver, trustee or other officer with similar powers with respect to such person or entity or with respect to any substantial part of their respective property, or (ii) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction, or (iii) ordering the dissolution, winding-up or liquidation of such person or entity; or

(viii) This Lease or any estate of Tenant hereunder is levied upon under any attachment or execution and such attachment or execution is not vacated within thirty (30) days. If Tenant defaults beyond the applicable notice and cure periods above under any particular provision of this Lease on two (2) separate occasions during any 12-month period, Tenant's subsequent violation of such provision shall, at Landlord's option, be an incurable Event of Default. The no*'^ periods provided in Section 20, Kit through Section 20.1(viii) above are in lieu of, and not in additional to any notice periods provided by Applicable Law, and Landlord shall not be required to give any additional notice in order to be entitled to commence an unlawful detainer proceeding.

20.2 Landlord's Remedies Upon Occurrence of Event of Default. Upon the occurrence of any Event of Default, Landlord shall have, in addition to any other remedies available to Landlord at law or in equity (which shall be cumulative and nonexclusive), the option to pursue any one or more of the following remedies (which shall be cumulative and nonexclusive) without any notice or demand:

(a) Termination. Terminate this Lease, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy it may have for possession or arrearages in Rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor; and Landlord may recover from Tenant the following:

(i) The worth at the time of award of the unpaid Rent which has been earned at the time of such termination; plus

(ii) The worth at the time of award of the amount by which the unpaid Rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iii) The worth at the time of award of the amount by which the unpaid Rent for the balance of the Lease Term after the time of award exceeds the amount of such Rent loss that Tenant proves could be reasonably avoided; plus

(iv) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom; and

(v) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by Applicable Law.

As used in Sections 20.2(a)(i) and (h) above, the "worth at the time of award" shall be computed by allowing interest at the Interest Rate. As used in Section (iii) above, the "worth at the time of award" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus 1%. For the purpose of determining unpaid Rent under Sections 20.2(a)(i), (ii) and (iii) above, the Rent reserved in this Lease shall be deemed to be the total Rent payable by Tenant under this Lease. For purposes of computing the amount of Rent hereunder that would have accrued after the time of award, the amount of increases in Escalation Rent shall be projected based upon the average rate of increase, if any, in Escalation Rent through the time of award.

(b) Civil Code Section 1951.4. Landlord shall have the remedy described in California Civil Code Section 1951.4 (lessor may continue lease in effect after lessee's breach and abandonment and recover Rent as it becomes due, if lessee has the right to sublet or assign, subject only to reasonable limitations). Accordingly, if Landlord does not elect to terminate this Lease on account of any default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies under this Lease, including the right to recover all Rent as it becomes due.

(c) Other Remedies. Landlord shall at all times have the rights and remedies (which shall be cumulative with each other and cumulative and in addition to those rights and remedies available under Sections 20.2(a) and 20.2(b). above, or any Applicable Law or other provision of this Lease), without prior demand or notice except as required by Applicable Law, to seek any declaratory, injunctive or other equitable relief, and specifically enforce this Lease, or restrain or enjoin a violation or breach of any provision hereof.

20.3 Sublease of Tenant. If Landlord elects to terminate this Lease on account of any Event of Default as set forth in this Article 20, Landlord shall have the right, to (a) terminate any sublease, license, concession or other occupancy agreement entered into by Tenant and affecting the Premises, or, in Landlord's sole and absolute discretion, or (b) succeed to Tenant's interest in such subleases, licenses, concessions or other agreements. If Landlord elects to succeed to Tenant's interest in any such subleases, licenses, concessions or other agreements, Tenant shall, as of the date of Landlord's notice of such election, have no further right to or interest in the Rent or other consideration receivable thereunder.

20.4 Effort to Relet. Unless Landlord provides Tenant with express written notice to the contrary, no re-entry, repossession, repair, maintenance, change, alteration, addition, reletting, appointment of a receiver or other action or omission by Landlord shall (a) be construed as an election by Landlord to terminate this Lease or Tenant's right to possession, or to accept a surrender of the Premises, or (b) operate to release Tenant from any of its obligations hereunder.

20.5 Landlord's Right to Cure Defaults. Upon the occurrence of an Event of Default, Landlord may, at its option, take any reasonable action to cure the Event of Default, without waiving its rights and remedies against Tenant or releasing Tenant from any of its obligations hereunder. Notwithstanding the preceding sentence, in the event of an emergency or other circumstance in which Tenant's failure to take immediate action may result in injury to persons or damage to property, Landlord may, at its option, take any reasonable action to perform any obligation of Tenant, after first giving such prior notice to Tenant and an opportunity for Tenant to cure as may be reasonable under the circumstances. All reasonable out-of-pocket costs actually paid by Landlord in performing Tenant's obligations as set forth in this Section 20.5 plus a supervision fee equal to five percent (5%) of the first $100,000 in costs of performing the obligation and one percent (1%) of costs in excess of $100,000, shall be paid by

Tenant to Landlord within thirty (30) days after demand. If Landlord enters the Premises, or any portion thereof, in order to effect cure hereunder, Tenant waives all Claims which may be caused by Landlord's so entering the Premises, and Tenant shall indemnify, defend, protect and hold Landlord, and the other Indemnitees harmless from and against third party Claims resulting from any actions of Landlord to perform obligations on behalf of Tenant hereunder, except in each case to the extent due to any gross negligence or willful misconduct on the part of Landlord or any other Indemnitee(s). No entry by Landlord to the Premises or obligations performed by Landlord in the Premises under this Section 20.5 shall constitute a forcible or unlawful entry into, or a detainer of, the Premises, or an eviction, actual or constructive, of Tenant from the Premises, or any portion thereof.

20.6 Waiver of Forfeiture. Tenant hereby waives, for Tenant and for all those claiming by, through or under Tenant, the provisions of Section 3275 of the California Civil Code and Sections 1174(c) and 1179 of the California Code of Civil Procedure and any rights, now or hereafter existing, to redeem or reinstate, by order or judgment of any court or by any legal process or writ, this Lease or Tenant's right of occupancy of the Premises after any termination of this Lease.

20.7 Landlord's Default. Notwithstanding anything to the contrary set forth in this Lease, Landlord shall not be in default in the performance of any obligation required to be performed by Landlord pursuant to this Lease unless Landlord fails to perform such obligation within thirty (30) days after the receipt by Landlord of written notice from Tenant specifying in detail Landlord's alleged failure to perform; *provided*, *however,* if the nature of Landlord's obligation is such that more than thirty (30) days are required for its performance, then Landlord shall not be in default under this Lease if the commences such performance within such thirty (30)-day period and thereafter diligently pursues the same to completion. Except any termination rights expressly set forth in this Lease, in no event shall Tenant have the right to terminate or rescind this Lease as a result of Landlord's failure to perform any covenant or agreement contained in this Lease. Tenant hereby waives such remedies of termination and rescission and hereby agrees that Tenant's remedies for Landlord's failure to perform hereunder and for breach of any promise or inducement shall be limited to the remedies set forth in this Section 20.7 and suit for damages and/or injunction.

21. Subordination, Attornment and Nondisturbance.

21.1 Subordination and Attornment. Landlord represents that the Project is currently not encumbered by any Encumbrances as of the Lease Date. This Lease and all of Tenant's rights hereunder shall be automatically subordinate to any and all Encumbrances, to all renewals, modifications, consolidations, replacements and extensions thereof, and to any and all advances made or hereafter made on the security thereof or Landlord's interest therein, unless an Encumbrancer requires in writing that this Lease be superior to its Encumbrance; *provided,* that, so long as Tenant is not in default under the Lease beyond any applicable cure period, its right to possession and the other terms of the Lease shall remain in full force and effect notwithstanding any foreclosure, deed-in-lieu of foreclosure or other exercise of remedies by the holder of any Encumbrance and the subordination of this Lease to any future Encumbrance shall be subject to Tenant's receipt of a commercially reasonable nondisturbance agreement from the Encumbrancer. If any proceeding is brought for the foreclosure of any such Encumbrance (or if by deed in lieu of foreclosure the Property is obtained by Encumbrancer or any purchaser, or if any ground lease is terminated), then (i) Tenant shall attorn, without any deductions or set-offs whatsoever, to the Encumbrancer or purchaser or any successors thereto upon any foreclosure sale or deed in lieu thereof (or to the ground lessor) and (ii) Tenant shall recognize such purchaser or Encumbrancer as the "Landlord" under this Lease, provided that such Encumbrancer agrees not to disturb Tenant's possession of the Premises so long as Tenant is not in default under this Lease beyond any applicable cure period. Landlord's interest herein may be assigned as security at any time to any Encumbrancer. The provisions of this Section 21.1 shall be self-operative without execution of any further instruments; *provided, however,* within ten (10) Business Days after request by Landlord or any Encumbrancer, Tenant shall execute such further commercially reasonable instruments or assurances which are consistent with the provisions of this Article 21 to evidence or confirm the subordination or superiority of this Lease to any such Encumbrance; *provided*, that, such instrument or assurance shall provide that so long as Tenant is not in default under the Lease beyond any applicable cure period, its right to possession and the other terms of the Lease shall remain in

full force and effect notwithstanding any foreclosure, deed-in-lieu of foreclosure or other exercise of remedies by the holder of any Encumbrance. Tenant waives the provisions of any Requirement which may give or purport to give Tenant any right or election to terminate or otherwise adversely affect this Lease and the obligations of the Tenant hereunder in the event of any foreclosure proceeding, deed in lieu thereof or sale. Tenant agrees with Encumbrancer that if Encumbrancer or any foreclosure sale purchaser shall succeed to the interest of Landlord under this Lease, Encumbrancer shall not be (i) liable for any action or omission of any prior Landlord under this Lease (except for any acts or omissions of which Encumbrancer had received notice in writing, and are continuing), (ii) subject to any offsets or defenses which Tenant might have against any prior Landlord (except for any offsets or defenses of which Encumbrancer had received notice in writing, and are continuing), (iii) bound by any Rent which Tenant might have paid for more than the current month to any prior Landlord, or (iv) liable for any Deposit or Letter of Credit (each as defined below) not actually received by such Encumbrancer. Tenant agrees that the foregoing list may be expanded in connection with the execution of a subordination, non-disturbance and attornment agreement by and among Landlord, Tenant and Encumbrancer, to include additional commercially reasonable limitations on the Encumbrancer's liability.

21.2 Notice to Encumbrancer. Notwithstanding anything to the contrary contained in this Lease, including, without limitation, Article 28, upon receipt by Tenant of notice from any Encumbrancer or from Landlord, which notice sets forth the address of such Encumbrancer, no notice from Tenant to Landlord shall be effective unless and until a copy of the same is given to such Encumbrancer at the appropriate address therefor (as specified in the above-described notice or at such other places as may be designated from time to time in a notice to Tenant in accordance with Article 28), and the curing of any of Landlord's defaults by such Encumbrancer within a reasonable period of time after such notice from Tenant (including a reasonable period of time to obtain possession of the Building if such Encumbrancer elects to do so) shall be treated as performance by Landlord.

21.3 Rent Payment Direction. From and after Tenant's receipt of written notice from an Encumbrancer or from a receiver appointed pursuant to the terms of an Encumbrance (a "**Rent Payment Direction**"), Tenant shall pay all Rent under this Lease to such Encumbrancer or as such Encumbrancer shall direct in writing. Tenant shall comply with any Rent Payment Direction notwithstanding any contrary instruction, direction or assertion from Landlord. An Encumbrancer's delivery to Tenant of a Rent Payment Direction, or Tenant's compliance therewith, shall not be deemed to: (i) cause such Encumbrancer to succeed to or to assume any obligations or responsibilities of Landlord under this Lease, all of which shall continue to be performed and discharged solely by Landlord unless and until such Encumbrancer or a foreclosure sale purchaser succeeds to Landlord's interest hereunder, or (ii) relieve Landlord of any obligations under this Lease. Tenant shall be entitled to rely on any Rent Payment Direction, and Landlord irrevocably directs Tenant to comply with any Rent Payment Direction, notwithstanding any contrary direction, instruction, or assertion by Landlord.

22. Sale or Transfer by Landlord; Lease Non-Recourse.

22.1 Release of Landlord on Transfer. Landlord may at any time transfer, in whole or in part, its right, title and interest under this Lease and/or in the Project, or any portion thereof. If the original Landlord hereunder, or any successor to such original Landlord, transfers (by sale, assignment or otherwise) its right, title or interest in the Building and such successor accepts, all liabilities and obligations of the original Landlord or such successor under this Lease, from and after the date of such transfer, shall terminate as of the date of such transfer, the original Landlord or such successor shall automatically be released therefrom as of the date of such transfer, and thereupon all such liabilities and obligations from and after the date of such transfer shall only be binding upon the new owner. Tenant shall attorn to each such new owner. If in connection with any transfer effected by the then Landlord hereunder, such Landlord transfers any Security Deposit, Letter of Credit or other security provided by Tenant to Landlord for the performance of any obligation of Tenant under this Lease, then such Landlord shall be released from any further responsibility or liability for such Deposit, Letter of Credit or other security.

22.2 Lease Nonrecourse to Landlord; Limitation of Liability. Landlord's liability to Tenant for any default by Landlord under this Lease or arising in connection herewith or with Landlord's operation, management, leasing, repair, renovation, alteration or any other matter relating to the Project or the Premises shall be limited solely and exclusively to an amount that is equal to the lesser of (i) the interest of Landlord in the Project including without limitation rents and condemnation and insurance proceeds from the Project, and Landlord's equity interest in the Project, or (ii) the equity interest Landlord would have in the Project if the Project were encumbered by third-party debt in an amount equal to eighty percent (80%) of the fair market value of the Project. None of the employees, officers, directors, shareholders, partners, members, and trustees comprising either Landlord or Tenant shall have any personal liability for any default by Landlord or Tenant under this Lease, and Tenant and Landlord hereby expressly waive and release such personal liability. Notwithstanding any contrary provision herein, neither Landlord, Tenant nor any of their respective employees, officers, directors, shareholders, partners members, and trustees shall be liable under any circumstances for any indirect or consequential damages or any injury or damage to, or interference with business, including but not limited to, loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring; *provided, however,* the foregoing waiver shall not apply to Tenant's indemnity obligations under Section 25 of this Lease. For avoidance of doubt, the foregoing waiver shall apply to all of the parties' indemnity obligations under this Lease other than as set forth in Section 25 below. The limitations of liability contained in this Section 22.2 shall inure to the benefit of Landlord and Tenant and their respective present and future employees, officers, directors, shareholders, partners, members, and trustees and their respective heirs, successors and assigns.

23. Estoppel Certificate.

23.1 Procedure and Content. Within ten (10) days after Landlord's request therefor, Tenant shall execute, acknowledge, and deliver to Landlord an estoppel certificate certifying: (i) that this Lease is unmodified and in full force and effect (or, if there have been modifications, that this Lease is in full force and effect, as modified, and identifying each modification); (ii) the Commencement Date and Rent Commencement Date if such date is not specified as a date certain in the Basic Lease Information, and the Expiration Date; (iii) that Tenant has accepted the Premises (or the reasons Tenant has not accepted the Premises); (iv) the amount of the Base Rent and current Escalation Rent, if any, and the date to which such Rent has been paid; (v) that there exists no Event of Default, except as to any Events of Default specified in the certificate; (vi) that no default of Landlord under this Lease is claimed by Tenant, except as to any defaults specified in the certificate; and (vii) such other matters as may be requested by Landlord. If requested by Landlord, Tenant shall attach to any such certificate a copy of this Lease, and any amendments thereto, and include in such certificate a statement by Tenant that such attachment is a true, correct and complete copy of this Lease, including all modifications thereto. In addition, at Landlord's request, any guarantor of Tenant's obligations hereunder shall execute, acknowledge, and deliver to Landlord certificates as specified by Landlord reaffirming such guarantor's guaranty of Tenant's obligations.

23.2 Effect of Certificate. Any such certificate may be relied upon by any prospective purchaser of any part or interest in the Project or Encumbrancer and, at Landlord's request, Tenant shall deliver such certificate to any such person or entity.

24. No Light, Air, or View Easement. Nothing contained in this Lease shall be deemed, either expressly or by implication, to create any easement for light and air or access to any view. Any diminution or shutting off of light, air or view to or from the Premises by any structure which now exists or which may hereafter be erected, whether by Landlord or any other person or entity, shall in no way affect this Lease or Tenant's obligations hereunder, entitle Tenant to any reduction of Rent, or impose any liability on Landlord. Further, under no circumstances at any time during the Term shall any temporary darkening of any windows of the Premises or any temporary obstruction of the light or view therefrom by reason of any repairs, improvements, maintenance or cleaning in or about the Project in any way impose any liability upon Landlord or in any way reduce or diminish Tenant's obligations under this Lease.

25. Holding Over. No holding over by Tenant past the Expiration Date shall operate to extend the Term. Notwithstanding the foregoing, if Tenant gives Landlord not less than twelve (12) months prior written notice, Tenant will have the one time right to hold over possession of the entire Premises for one calendar month on all of the terms and conditions of this Lease, except that Base Rent for said one month period of holdover shall be increased to one hundred fifty percent (150%) of the Base Rent in effect during the last month of the Term and the terms of the following three sentences shall not apply. Subject to the foregoing, if Tenant remains in possession of the Premises after expiration or termination of this Lease: (i) Tenant shall become a tenant at sufferance upon all the applicable terms and conditions of this Lease, except that Base Rent shall be increased to the greater of (a) one hundred fifty percent (150%) of the Base Rent in effect for the last month of the Term, and (b) one hundred fifty percent (150%) of the fair market rental value of the Premises (as evidenced by the rental rates then being offered by Landlord for comparable space in the Building) during such period. In addition to the foregoing, Tenant shall indemnify, defend, protect and hold harmless Landlord, the other Indemnitees, and any tenant to whom Landlord has leased all or part of the Premises from Claims (including loss of rent loss to Landlord or additional rent payable by such tenant and reasonable attorneys' fees) suffered or incurred by Landlord, such other Indemnitees, or such tenant resulting from Tenant's failure timely to vacate the Premises; and (iii) such holding over by Tenant sha ll constitute an Event of Default. Landlord's acceptance of Rent if and after Tenant holds over shall not convert Tenant's tenancy at sufferance to any other form of tenancy or result in a renewal or extension of the Term of this Lease, unless otherwise specified by written notice from Landlord to Tenant. Within ten (10) business days after Tenant's request, Landlord shall provide Tenant a written notice setting forth any leases or other occupancy agreements for the Premises or any portion thereof entered into by Landlord as of the date of such request and which will commence after the expiration of the term of this Lease and for which Landlord may suffer Claims if Tenant fails to timely vacate the Premises.

26. Security Deposit.

26.1 Delivery of Security Deposit.

(a) Letter of Credit. Within five (5) business days of Tenant's execution and delivery of this Lease, Tenant shall deliver to Landlord, as protection for the full and faithful performance by Tenant of all of its obligations under this Lease and, subject to the terms hereof, the Existing Lease, and for all losses and damages Landlord may suffer as a result of any breach or default by Tenant under this Lease, and the Existing Lease, an irrevocable and unconditional negotiable standby letter of credit (the "Letter of Credit") in the form attached hereto as Exhibit D and containing the terms required herein, payable upon presentation to an operating retail branch located in San Francisco, California, running in favor of Landlord and issued by a solvent, nationally recognized bank with a long term rating from Standard and Poor's Professional Rating Service of A or a comparable rating from Moody's Professional Rating Service or higher, under the supervision of the Superintendent of Banks of the State of California, or a national banking association, in the Deposit Amount set forth in the Basic Lease Information. The Letter of Credit shall be referred to herein as the "Security Deposit". The Letter of Credit shall (i) be "callable" at sight, irrevocable and unconditional, (ii) be maintained in effect, whether through renewal (pursuant to a so-called "evergreen provision") or extension, for the period from the Commencement Date and continuing until the date that is ninety (90) days after the expiration of the Term or the date of termination of the Lease (the "LC Expiration Date"), and Tenant shall deliver to Landlord a new Letter of Credit, certificate of renewal or extension amendment at least sixty (60) days prior to the expiration of the Letter of Credit then held by Landlord, without any action whatsoever on the part of Landlord, (iii) be fully transferable by Landlord, its successors and assigns, (iv) permit partial draws and multiple presentations and drawings, and (v) be otherwise subject to the International Standby Practices ISP 98, International Chamber of Commerce Publication #590. In addition to the foregoing, the form and terms of the Letter of Credit (and the bank issuing the same (the "Bank")) shall be acceptable to Landlord, in Landlord's reasonable discretion. If Landlord notifies Tenant in writing that the Bank which issued the Letter of Credit has become financially unacceptable because the above requirements are not met or the Bank has filed bankruptcy or reorganization proceedings or is placed into a receivership or conservatorship, or the financial condition of the Bank has changed in any other materially adverse way then Tenant shall have thirty (30) days to provide Landlord with a substitute Letter of Credit complying with all of the requirements of this Article 26. If Tenant does not so provide

Landlord with a substitute Letter of Credit within such thirty (30) day period, then Landlord, or its then managing agent, shall h 3 the right to draw upon the then current Letter of Credit. In addition to Landlord's rights to draw upon the Letter as otherwise described in this Article 26, Landlord, or its then managing agent, shall have the right to draw down an amount up to the face amount of the Letter of Credit if any of the following shall have occurred or be applicable: (A) such amount is an obligation of Tenant under the Lease that is past-due beyond applicable notice and cure periods under the terms and conditions of this Lease; (B) Tenant has filed a voluntary petition under the Bankruptcy Code, (C) an involuntary petition has been filed against Tenant under the Bankruptcy Code that is not dismissed within thirty (30) days, (D) the Bank has notified Landlord that the Letter of Credit will not be renewed or extended through the LC Expiration Date, or (E) Tenant has failed to deliver a new Letter of Credit or amendment to the existing Letter of Credit increasing the stated amount as required under the terms of this Lease. The Letter of Credit will be honored by the Bank regardless of whether Tenant disputes Landlord's right to draw upon the Letter of Credit. Tenant shall be responsible for paying the Bank's fees in connection with the issuance of any Letter of Credit, certificate of renewal or extension amendment.

(b) Upon written notice from the Bank that it is unconditionally prepared to issue and deliver the Letter of Credit, Landlord will deliver to the Bank for cancellation the letter of credit held by Landlord under the Existing Lease, with the intent that, subject to the terms of this Paragraph, the Letter of Credit shall secure the obligations of Tenant under this Lease and the Existing Lease as provided in Section 26.1(a) above, and shall remain in effect, as a Security Deposit with respect to the Existing Lease until the date that is ninety (90) days after the expiration of the Existing Lease or the date of termination of the Existing Lease. In addition, following the expiration of said ninety (90) day period, upon the request of Tenant, Landlord will execute an amendment to the Letter of Credit, in form and substance reasonably acceptable to Landlord deleting any reference therein to the Existing Lease.

(c) At any time, Tenant may replace the Letter of Credit with a cash Security Deposit (at which time Landlord shall concurrently return the Letter of Credit) or replace a cash Security Deposit with a Letter of Credit meeting the requirements of this Article 26 (at which time Landlord shall concurrently return the cash Security Deposit).

26.2 Transfer of Security Deposit. The Letter of Credit shall provide that Landlord, its successors and assigns, may, at any time and without notice to Tenant and without first obtaining Tenant's consent thereto, transfer (one or more times) all or any portion of its interest in and to the Letter of Credit to another party, person or entity. In the event of a transfer of Landlord's interest in the Building, Landlord shall transfer the Security Deposit to the transferee and thereupon Landlord shall, without any further agreement between the parties, be released by Tenant from all liability therefor arising after such transfer, and it is agreed that the provisions hereof shall apply to every transfer or assignment of the Security Deposit to a new landlord. In connection with any such transfer of the Letter of Credit by Landlord, Tenant shall, at Tenant's sole cost and expense, execute and submit to the Bank such applications, documents and instruments as may be reasonably necessary to effectuate such transfer, and Tenant shall be responsible for paying the Bank's transfer and processing fees in connection therewith.

26.3 In General. If, for any reason, the amount of the Security Deposit becomes less than the Deposit Amount then required to be provided hereunder, Tenant shall, within ten (10) days thereafter provide Landlord with an additional cash Security Deposit or additional letter(s) of credit in an amount equal to the deficiency (or a replacement letter of credit in the total Deposit Amount), and any such additional (or replacement) letter of credit shall comply with all of the provisions of this Article 26, and if Tenant fails to comply with the foregoing, then, notwithstanding anything to the contrary contained in Section 20.1 above, the same shall constitute a default by Tenant under this Lease (unless Tenant cures such default within five (5) days after written notice from Landlord to Tenant). Tenant further covenants and warrants that it will neither assign nor encumber the Security Deposit or any part thereof and that neither Landlord nor its successors or assigns will be bound by any such assignment, encumbrance, attempted assignment or attempted encumbrance. Without limiting the generality of the foregoing, if the Letter of Credit expires earlier than the LC Expiration Date, Landlord will accept a renewal thereof (such renewal letter of credit to be in effect and delivered to Landlord, as applicable, not later than sixty (60) days prior to the

expiration of the Letter of Credit), which shall be irrevocable and automatically renewable as above provided through the LC Expiration Date upon the same terms as the expiring Letter of Credit or such other terms as may be acceptable to Landlord in its reasonable discretion. However, if the Letter of Credit is not timely renewed, or if Tenant fails to maintain the Letter of Credit in the amount and in accordance with the terms set forth in this Article 26, Landlord shall have the right to present the Letter of Credit to the Bank in accordance with the terms of this Article 26, and the proceeds of the Letter of Credit may be applied by Landlord against any Rent payable by Tenant under this Lease that is not paid when due (subject to applicable notice and cure periods) and/or to pay for all losses and damages that Landlord has actually suffered as a result of any breach or default by Tenant under this Lease (subject to applicable notice and cure periods), including, but not limited to, all damages or rent due upon termination of this Lease pursuant to Section 1951.2 of the California Civil Code. Any unused proceeds shall constitute a Deposit as provided in Section 26.5 and need not be segregated from Landlord's other assets, provided that Landlord agrees to pay to Tenant within thirty (30) days after the LC Expiration Date the amount of any proceeds of the Letter of Credit received by Landlord and not applied against any Rent payable by Tenant under this Lease that was not paid when due or used to pay for any losses and/or damages actually suffered by Landlord as a result of any breach or default by Tenant under this Lease (including, but not limited to, all damages or rent due upon termination of this Lease pursuant to Section 1951.2 of the California Civil Code); *provided, however,* that if prior to the LC Expiration Date a voluntary petition is filed by Tenant, or an involuntary petition is filed against Tenant by any of Tenant's creditors under the Bankruptcy Code, then Landlord shall not be obligated to make such payment in the amount of the unused Letter of Credit proceeds until either all preference issues relating to payments under this Lease have been resolved in such bankruptcy or reorganization case or such bankruptcy or reorganization case has been dismissed.

26.4 Application of Letter of Credit. Tenant hereby acknowledges and agrees that Landlord is entering into this Lease in material reliance upon the ability of Landlord to draw upon the Letter of Credit upon the occurrence of any uncured breach or default on the part of Tenant under this Lease. If Tenant shall breach any provision of this Lease or otherwise be in default hereunder, in each case beyond applicable notice and cure periods, Landlord may, but without obligation to do so, and without notice to Tenant, draw upon the Letter of Credit, in part or in whole, to cure any breach or default of Tenant and/or to compensate Landlord for any and all damages of any kind or nature sustained resulting from Tenant's breach or default, including, but not limited to, all damages or rent due upon termination of this Lease pursuant to Section 1951.2 of the California Civil Code. The use, application or retention of the Letter of Credit, or any portion thereof, by Landlord shall not prevent Landlord from exercising any other right or remedy provided by this Lease or by any Applicable Laws, it being intended that Landlord shall not first be required to proceed against the Letter of Credit, and the use, application or retention of the Letter of Credit shall not operate as a limitation on any recovery to which Landlord may otherwise be entitled. No condition or term of this Lease shall be deemed to render the Letter of Credit conditional to justify the issuer of the Letter of Credit in failing to honor a drawing upon such Letter of Credit in a timely manner. Tenant agrees and acknowledges that (i) the Letter of Credit constitutes a separate and independent contract between Landlord and the Bank, (ii) Tenant is not a third party beneficiary of such contract, (iii) Tenant has no property interest whatsoever in the Letter of Credit or the proceeds thereof, and (iv) in the event Tenant becomes a debtor under any chapter of the Bankruptcy Code, neither Tenant, any trustee, nor Tenant's bankruptcy estate shall have any right to restrict or limit Landlord's claim and/or rights to the Letter of Credit and/or the proceeds thereof by application f Section 502(b)(6) of the U.S. Bankruptcy Code or otherwise.

26.5 Security Deposit. Any proceeds drawn under the Letter of Credit and not applied as set forth above shall be held by Landlord as a security deposit (the "Deposit"). No trust relationship is created herein between Landlord and Tenant with respect to the Deposit, and Landlord shall not be required to keep the Deposit separate from its general accounts. The Deposit shall be held by Landlord as security for the faithful performance by Tenant of all of the provisions of this Lease to be performed or observed by Tenant. If Tenant fails to pay any Rent, or otherwise defaults with respect to any provision of this Lease as set forth in Section 20.1, Landlord may (but shall not be obligated to), and without prejudice to any other remedy available to Landlord, use, apply or retain all or any portion of the Deposit for the payment of any Rent in default or for the payment of any other sum to which Landlord may become obligated by reason of Tenant's default, or to compensate Landlord for any loss or damage which

Landlord actually suffers thereby, including, without limitation, prospective damages and damages recoverable pursuant to California Civil Code Section 1951.2. Tenant waives the provisions of California Civil Code Section 1950.7, or any similar or successor laws now or hereinafter in effect, that restrict Landlord's use or application of the Deposit, or that provide specific time periods for return of the Deposit. Without limiting the generality of the foregoing, Tenant expressly agrees that if Landlord terminates this Lease due to an Event of Default or if Tenant terminates this Lease in a bankruptcy proceeding, Landlord shall be entitled to hold the Deposit until the amount of damages recoverable pursuant to California Civil Code Section 1951.2 is finally determined. If Landlord uses or applies all or any portion of the Deposit as provided above, Tenant shall within ten (10) days after demand therefor, deposit cash with Landlord in an amount sufficient to restore the Deposit to the full amount thereof, and Tenant's failure to do so shall, at Landlord's option, be an Event of Default under this Lease if Tenant does not cure such failure within five (5) days after written notice from Landlord to Tenant. At any time that Landlord is holding proceeds of the Letter of Credit pursuant to this Section 26.5, Tenant may deposit a Letter of Credit that complies with all requirements of this Article 26, in which event Landlord shall return the Deposit to Tenant within ten (10) days after receipt of the Letter of Credit. If Tenant performs all of Tenant's obligations hereunder, the Deposit, or so much thereof as has not previously been applied by Landlord, shall be returned, without payment of interest or other increment for its use, to Tenant (or, at Landlord's option, to the last assignee, if any, of Tenant's interest hereunder) within ninety (9 0) days following the later of the expiration of the Term or Tenant's vacation and surrender of the Premises in accordance with the requirements of this Lease. Landlord's return of the Deposit or any part thereof shall not be construed as an admission that Tenant has performed all of its obligations under this Lease. Upon termination of Landlord's interest in this Lease, if Landlord transfers the Deposit (or the amount of the Deposit remaining after any permitted deductions) to Landlord's successor in interest, and thereafter notifies Tenant of such transfer and the name and address of the transferee, then Landlord shall be relieved of any further liability with respect to the Deposit that was actually transferred to the successor in interest.

26.6 Intentionally Omitted.

26.7 Intentionally Omitted.

27. Waiver. Failure by Landlord to declare an Event of Default upon occurrence thereof, or delay in taking any action in connection therewith, shall not waive such Event of Default, but Landlord shall have the right to declare such Event of Default at any time after its occurrence. To be effective, a waiver of any provision of this Lease, or any default, shall be in writing and signed by the waiving party. Any waiver hereunder shall not be deemed a waiver of subsequent performance of any such provision or subsequent defaults. The subsequent acceptance of Rent hereunder, or endorsement of any check by Landlord, shall not be deemed to constitute an accord and satisfaction or a waiver of any preceding Event of Default, except as to the particular Rent so accepted, regardless of Landlord's knowledge of the preceding Event of Default at the time of acceptance of the Rent. No course of conduct between Landlord and Tenant, and no acceptance of the keys to or possession of the Premises by Landlord before the Expiration Date, shall constitute a waiver of any provision of this Lease or of any Event of Default or operate as a surrender of this Lease.

28. Notices; Tenant's Agent for Service. All notices, approvals, consents, demands and other communications from one party to the other given pursuant to this Lease shall be in writing and shall be made by personal delivery, by use of a reputable courier service or by deposit in the United States mail, certified, registered or express, postage prepaid and return receipt requested. Notices shall be addressed if to Landlord, to Landlord's Address for Notices set forth in the Basic Lease Information, and if to Tenant, to Tenant's Address set forth in the Basic Lease Information. Notices shall be effective on the date of receipt if mailed or on the date of hand delivery if hand delivered. If any such notice, approval, consent, demand and other communication is not received or cannot be delivered due to a change in the address of the receiving party of which notice was not previously given to the sending party or due to a refusal to accept by the receiving party, such request, approval, consent, notice or other communication shall be effective on the date delivery is attempted. Landlord and Tenant may each change their respective addresses from time to time by giving written notice to the other of such change in accordance with the

terms of this Article 28, at least ten (10) days before such change is to be effected; *provided, however,* that any such address shall be a street address (and not a post office box). Any notices given in accordance with this Article 28 shall be deemed to have been given (i) on the date of personal delivery or (ii) on the earlier of the date of delivery or attempted delivery (as shown by the courier service delivery record or return receipt) if sent by courier service or mailed.

29. Authority. Tenant represents and warrants that (i) Tenant is a duly formed, authorized and existing corporation, limited liability company, partnership, trust, or other form of entity (as the case may be), (ii) Tenant is qualified to do business in California, (iii) Tenant has the full right and authority to enter into this Lease and to perform all of Tenant's obligations hereunder, and (iv) each person signing on behalf of Tenant is authorized to do so. Tenant shall deliver to Landlord, within ten (10) days after Landlord's request, such certificates, resolutions, or other written assurances authorizing Tenant's execution and delivery of this Lease, as requested by Landlord from time to time or at any time, in order for Landlord to assess Tenant's then authority under this Lease.

30. Parking; Transportation.

30.1 Lease of Parking Spaces.

(a) Initial Required Parking Spaces. For so long as Tenant leases the Premises, Tenant shall lease the number of parking spaces in the Parking Facility as specified in the Basic Lease Information. The parking charges for such spaces shall be Two Hundred Fifty Dollars ($250.00) per parking space per month during the Term (the "Parking Charge"). The Parking Charge shall increase three percent (3%) annually commencing on the first anniversary of the Rent Commencement Date. Parking Charges shall constitute Rent hereunder and shall be payable in advance, at the same time and in the same manner as Base Rent commencing on the Commencement Date.

(b) Elective Parking Spaces. Any additional month to month parking spaces that Tenant may from time to time request shall be at the Parking Facility's then-prevailing rate and subject to availability in accordance with Landlord's customary practices in managing the Parking Facility. parking, Tenant shall not have any right to any such terminated or relinquished parking for the remainder of the Term, and Landlord shall have no obligation to procure substitute parking for Tenant.

30.2 Use of the Parking Spaces. The use of the parking space shall be for the parking of motor vehicles used by Tenant, its officers, directors, invitees and employees only, and shall be subject to applicable Requirements. Parking spaces may not be assigned or transferred separate and apart from this Lease. Upon the expiration or earlier termination of this Lease, Tenant's rights with respect to all leased parking spaces shall immediately terminate. Further, if Tenant fails to pay Parking Charges when the same shall be due, then, upon written notice from Landlord, in addition to all other remedies available to Landlord, Tenant's rights with respect to all leased parking spaces shall immediately terminate. If Tenant's rights to parking spaces terminate, or if Tenant relinquishes its rights to any parking, Tenant shall not have any right to any such terminated or relinquished parking for the remainder of the Term, and Landlord shall have no obligation to procure substitute parking for Tenant.

30.3 Management of Parking Facility. The Parking Facility shall be subject to the reasonable control and management of Landlord, who may, from time to time, establish, modify and enforce reasonable rules and regulations with respect thereto. If parking spaces are not assigned pursuant to the terms of this Lease, Landlord reserves the right at any time to assign parking spaces, and Tenant shall thereafter be responsible to insure that its officers and employees park in the designated areas. Tenant shall, if requested by Landlord, furnish to Landlord a complete list of the license plate numbers of all vehicles operated by Tenant, any transferee, or their respective officers and employees. Landlord reserves the right to change, reconfigure, or rearrange the Parking Facility, to reconstruct or repair any portion thereof, and to restrict or eliminate the use of any Parking Facility and do such other reasonable acts in and to such areas as Landlord deems necessary or desirable, without such actions being deemed an eviction of Tenant or a disturbance of Tenant's use of the Premises, and without Landlord being deemed in default

hereunder, provided that Landlord shall use commercially reasonable efforts (without any obligation to engage overtime labor or commence any litigation) to minimize the extent and duration of any resulting interference with Tenant's parking rights. Landlord may, in its sole discretion, convert the Parking Facility to a reserved and/or controlled parking facility, or operate the Parking Facility (or a portion thereof) as a tandem, attendant assisted and/or valet parking facility. Landlord may delegate its responsibilities with respect to the Parking Facility to a parking operator, in which case such parking operator shall have all the rights of control and management granted to Landlord. In such event, Landlord may direct Tenant, in writing, to enter into a parking agreement directly with the operator of the Parking Facility, and to pay some or all of the Parking Charges directly to such operator. The Parking Facility shall be accessible 24/7/365 with overnight parking being acceptable (subject to applicable Parking Charges). Landlord shall cooperate with Tenant if Tenant elects to utilize shuttle buses at or around the Building.

30.4 Waiver of Liability. Subject to Section 15 above, Landlord shall not be liable for any damage of any nature to, or any theft of, vehicles, or contents thereof, in or about the Parking Facility, unless such damage is caused by Landlord's willful misconduct and provided that the foregoing shall not preclude Tenant from pursuing any claims against any third party who is not Landlord. At Landlord's request, Tenant shall cause its or any transferee's officers and employees using Tenant's parking spaces to execute an agreement confirming the foregoing.

31. Signs.

31.1 Building Directory. Landlord shall reserve on the directories located within the Building lobby, if any, space identifying the name of tenants, including Tenant; provided, however, for so long as a Landlord Entity is both the owner of the Building (or the west side of the Building) and an occupant of the Building, Landlord's name may be given prominence in any Building directory. Subject to the foregoing, Tenant directory identification shall be offered to all tenants ion a non-discriminatory basis as reasonably determined by Landlord. Landlord shall, at Tenant's sole cost and expense, perform the initial installation of Tenant's name on such portion of any building directory (and any change thereto after the initial installation shall be performed by Landlord at Tenant's sole cost and expense). The Renovations shall include a Building lobby tenant directory,

31.2 Interior Signage.

(a) Floor Signs. Landlord shall install, at Tenant's sole cost and expense, an identification sign at each entrance to the Premises, that shall comply with the Building's standards signage program, on each floor of the Building in which the Premises is located. Any subsequent identifying signage shall be procured and installed by Landlord at Tenant's sole cost and expense.

(b) Restrictions. Tenant shall not place on any portion of the Premises any sign, poster, placard, lettering, banner, displays, graphic, advertising, or other material that is visible from the exterior of the Premises without Landlord's prior written approval, which approval may be withheld in Landlord's sole and absolute discretion.

31.3 Intentionally omitted.

31.4 Maintenance and Removal. Any signs, once approved by Landlord, shall be installed and removed only in strict compliance with Landlord's approval and applicable Requirements, at Tenant's expense, using a contractor first approved by Landlord to install same. Tenant, at its sole expense, shall maintain such sign in good condition and repair during the Term. Landlord may remove any signs (not first approved in writing by Landlord), advertisements, banners, placards or pictures so placed by Tenant on or within the Premises, the Building, the Common Areas or the Project and charge to Tenant the cost of such removal, together with any costs incurred by Landlord to repair any damage caused thereby, including any cost incurred to restore the surface upon which such sign was so affixed to its original condition. Prior to the expiration or earlier termination of this Lease, Tenant shall remove all of Tenant's signs, repair any damage caused thereby, and restore the surface upon which the sign was affixed to its original condition, all to Landlord's reasonable satisfaction, upon the expiration or earlier termination of this Lease.

32. Communications and Computer Lines and Equipment.

32.1 Lines and Equipment. Tenant may install, maintain, replace, remove or use its pro rata share of communications or computer wires and cables (collectively, "**Lines**") at the Project to serve the Premises, and may install, maintain, replace, remove or use telecommunications or other signal or data reception or transmission equipment (collectively, "**Equipment**") in the Premises, provided that Tenant shall obtain Landlord's reasonable prior written consent, use the contractor reasonably specified by Landlord (which contractor may, but need not be, the entity managing the Building's risers), and comply with all of the other provisions of this Lease and such other reasonable rules and procedures as may be established by Landlord from time to time, (ii) Lines and Equipment shall comply with all applicable Requirements and shall be subject to all other provisions of this Lease, (iii) Lines and Equipment shall not cause any electrical, electromagnetic, radio frequency, or other interference with the Building Systems or any equipment of any party (including any telecommunication or other signal or data reception or transmission equipment and/or system in or serving the Project, its occupants, and/or Landlord), or otherwise interfere with the use and enjoyment of the Project by Landlord or any tenant of the Project (collectively, "**Interference**"), (iv) Landlord shall allow access to the Building (including the Building's MPOE room) to Tenant's telecommunications services and equipment provider in connection with Lines and Equipment subject to the requirement that Tenant or any such third party shall be accompanied by a Landlord representative during any such access, (v) any right granted to Tenant to install, maintain and use Lines and Equipment shall be non-exclusive, (vi) Tenant shall pay all reasonable costs in connection with this Article 32, and (vii) in the case of Lines, (A) an acceptable number of spare Lines and space for additional Lines shall be maintained for existing and future occupants of the Project, as determined in Landlord's reasonable opinion, (B) Lines (including riser cables) shall be appropriately insulated to prevent excessive electromagnetic fields or radiation, and shall be surrounded by a protect"""' conduit reasonably acceptable to Landlord, and (C) in the case of the installation of new Lines, Tenants the time of installation, shall label such Lines, on each floor through which they pass, with an identification system reasonably approved by Landlord. Landlord agrees to make available for Tenant's use, at no additional cost, space in the Building's riser and other communications pathways for the installation of Lines and Equipment; provided, however, Tenant acknowledges that there is limited space in the Building to accommodate Lines and Equipment, and agrees to reasonably cooperate with Landlord and with other providers and users of Equipment to share the available space and facilities and to coordinate the efficient co-location of Equipment in the Building.

32.2 Interference.

(a) Tenant's Interference. Upon written notice of any Interference, Tenant shall immediately cooperate with Landlord to identify the source of the Interference and shall, within thirty (30) days after written notice by Landlord, if reasonably requested by Landlord, cease all operations of Lines and Equipment (except for intermittent testing as approved by Landlord, which approval shall not be unreasonably withheld, conditioned or delayed) until the Interference has been corrected to the reasonable satisfaction of Landlord, unless Tenant reasonably establishes prior to the expiration of such thirty (30)-day period that the Interference is not caused by Tenant's Lines or Equipment, in which case, Tenant may operate its Lines or Equipment pursuant to the terms of this Lease. Tenant shall be responsible for all costs associated with any tests deemed reasonably necessary to resolve any and all Interference as set forth in this Article if it is determined that Tenant is the source of such Interference. If such Interference has not been corrected within thirty (30) days after written notice to Tenant of its occurrence, Landlord may (i) require Tenant to remove the specific Line or Equipment causing such Interference pursuant to the terms of Section 32.3(c) below, or (ii) eliminate the Interference at Tenant's expense, provided such Interference is actually caused by Tenant's Lines or Equipment.

(b) Other Party's Interference. If the lines or equipment of any other party causes Interference with Tenant's Lines or Equipment, Tenant shall reasonably cooperate with Landlord and such other party to resolve such Interference in a mutually acceptable manner.

32.3 General Provisions.

(a) Consultation with Landlord. Tenant shall consult with Landlord in advance of any installation of any Lines or Equipment that may cause any Interference at the earliest practicable stage of consideration of such installation.

(b) Landlord's Rights. Except as otherwise expressly set forth in this Lease, Landlord may, but shall not have the obligation to, reasonably direct, monitor, and/or supervise the installation, maintenance, replacement and removal of any Lines or Equipment. The foregoing sentence shall not be a limitation to any other rights Landlord may have under applicable Requirements or otherwise.

(c) Removal. Except as otherwise expressly set forth in this Lease, Landlord reserves the right to require Tenant, upon reasonable written notice, to remove any Lines or Equipment located in or serving the Premises installed by Tenant which (i) are or were installed in violation of these provisions, or (ii) are at any time in violation of any applicable Requirements, or (iii) present a dangerous or potentially dangerous condition, or (iv) present a threat to the structural integrity of the Building, or (v) threaten to overload the capacity of, or affect the temperature otherwise maintained by, the air conditioning system, or the capacity of the Building's electrical system, or (vi) have caused Interference that has not been corrected in accordance with Section 32.2(a) above. In addition, Tenant shall remove Lines and Equipment installed by Tenant upon the expiration or earlier termination of this Lease in accordance with Section 33.13 below. The removal of Lines or Equipment shall be performed by the contractor specified by Landlord. If Tenant fails to remove any Lines or Equipment as required by Landlord in a diligent and expeditious manner, or if Tenant violates any other provision of this Article 32 Landlord may, after three (3) days' written notice to Tenant, remove such Lines and/or Equipment, as the case may be, or remedy such other violation, at Tenant's expense (without limiting Landlord's other remedies available under this Lease or applicable Requirements); *provided, however,* that Landlord shall have the right to remove any such Lines and/or Equipment immediately, without notice to Tenant, in the event of an emergency.

(d) Approval by Landlord. Landlord's approval of, or requirements concerning, Lines and Equipment, the plans, specifications or drawings related thereto or Tenant's contractors, subcontractors, or service provider, shall not be deemed a warranty as to the adequacy thereof, and Landlord hereby disclaims any responsibility or liability for the same. Landlord further disclaims all responsibility for the condition, security or utility of Lines and Equipment, and makes no representation regarding the suitability of any such Lines or Equipment for Tenant's intended use or the adequacy or fitness of the Building Systems for any such Lines or Equipment.

(e) Waiver of Claims. Landlord shall have no liability for damages arising from, and Landlord does not warrant that Tenant's use of any Lines or Equipment will be free from, the following: (i) any shortages, failures, variations, interruptions, disconnections, loss or damage caused by the installation, maintenance, replacement, use or removal of Lines and/or Equipment by or for other tenants or occupants of the Project, by any failure of the environmental conditions or the power supply for the Building to conform to any requirements for the Lines and/or Equipment, or any other problems associated with any Lines and/or Equipment by any other cause; (ii) any failure of any Lines and/or Equipment to satisfy Tenant's requirements; (iii) any eavesdropping or wire-tapping by unauthorized parties; or (iv) any Interference with Tenant's Lines and/or Equipment caused by the lines and/or equipment of any other party, unless caused by Landlord's willful misconduct or gross negligence. Tenant waives any right to claim that any occurrence described in clauses (i), (ii), (iii) or (iv) above constitutes grounds for a claim of abatement of Rent, actual or constructive eviction, or termination of this Lease.

(f) Acknowledgment. Tenant acknowledges that Landlord has granted and/or may grant lease rights, licenses, and other rights to other tenants and occupants of the Project and to telecommunications service providers.

(g) No Solicitation. Tenant shall not solicit, suffer, or permit other tenants or occupants of the Project to use its Lines or Equipment (including, without limitation, its wireless intranet, Internet and other communications network).

(h) Labeling. All Lines installed by Tenant shall be properly labeled with an identification system reasonably approved by Landlord.

33. Miscellaneous.

33.1 No Joint Venture. This Lease does not create any partnership or joint venture or similar relationship between Landlord and Tenant.

33.2 Successors and Assigns. Subject to the provisions of Article 17 regarding assignment, all of the provisions, terms, covenants and conditions contained in this Lease shall bind, and inure to the benefit of, the parties and their respective successors and assigns.

33.3 Construction and Interpretation. The words "Landlord" and "Tenant" incl the plural as well as the singular. If there is more than one person comprising Tenant, the obligations under this Lease imposed on Tenant are joint and several. References to a party or parties refer to Landlord or Tenant, or both, as the context may require. The captions preceding the Articles, Sections and subsections of this Lease are inserted solely for convenience of reference and shall have no effect upon, and shall be disregarded in connection with, the construction and interpretation of this Lease. Use in this Lease of the words "including," "such as," or words of similar import, when following a general matter, shall not be construed to limit such matter to the enumerated items or matters whether or not language of nonlimitation (such as "without limitation") is used with reference thereto. All provisions of this Lease have been negotiated at arm's length between the parties and after advice by counsel and other representatives chosen by each party and the parties are fully informed with respect thereto.

Therefore, this Lease shall not be construed for or against either party by reason of the authorship or alleged authorship of any provision hereof, or by reason of the status of the parties as Landlord or Tenant, and the provisions of this Lease and the Exhibits hereto shall be construed as a whole according to their common meaning in order to effectuate the intent of the parties under the terms of this Lease.

33.4 Severability. If any provision of this Lease, or the application thereof to any person or circumstance, is determined to be illegal, invalid or unenforceable, the remainder of this Lease, or its application to persons or circumstances other than those as to which it is illegal, invalid or unenforceable, shall not be affected thereby and shall remain in full force and effect, unless enforcement of this Lease as so invalidated would be unreasonable or grossly inequitable under the circumstances, or would frustrate the purposes of this Lease.

33.5 Entire Agreement. This Lease and the Exhibits hereto identified in the Basic Lease Information contain all of the representations and warranties and the entire agreement between the parties with respect to the subject matter hereof and any prior negotiations, correspondence, memoranda, agreements, representations or warranties are replaced in total by this Lease and the Exhibits hereto. Neither Landlord nor Landlord's employees, agents, contractors, licensees, invitees, representatives, officers, directors, shareholders, partners, and members have made any warranties or representations with respect to the Premises or any other portion of the Project, except as expressly set forth in this Lease. Tenant acknowledges that all brochures and informational materials, as well as all communications from Landlord and Landlord's employees, agents, contractors, licensees, invitees, representatives, officers, directors, shareholders, partners, and members prior to the execution of this Lease, including without limitation, statements as to the identity or number of other tenants in the Project, the lease terms applicable to any such tenants or potential tenants, anticipated levels (or any matters which may affect anticipated levels) of expected business or foot traffic, demographic data, the suitability of the Premises for Tenant's intended uses, and estimates of Escalation Rent, are and were made for informational purposes only, and Tenant agrees that

such communications (i) are not and shall not be construed to be representations or warranties of Landlord, Landlord's employees, agents, contractors, licensees, invitees, representatives, officers, directors, shareholders, partners, or members as to the matters communicated, have not and will not be relied upon by Tenant, and (iii) have been the subject of independent investigation by Tenant. Without limiting the generality of the foregoing, Tenant is not relying on any representation, and Landlord does not represent, that any specific retail or office tenant or occupant or number of tenants shall occupy any space or remain open for business in the Project at any time during the Term, and Landlord reserves the right to effect such other tenancies in the Project as Landlord shall determine in the exercise of its sole judgment.

33.6 Governing Law. This Lease shall be governed by and construed pursuant to the laws of the State of California.

33.7 Costs and Expenses.

(a) Attorneys' Fees. If either party hereto fails to perform any of its obligations under this Lease or if any dispute arises between the parties hereto concerning the meaning or interpretation of any provision of this Lease, then the party failing to so perform or the party not prevailing in such dispute, as the case may be, shall pay any and all costs and expenses incurred by the other party on account of such failure and/or in enforcing or establishing its rights hereunder, including, without limitation, court costs and reasonable attorneys' fees and disbursements. Any such attorneys' fees and other expenses incurred by either party in enforcing a judgment in its favor under this Lease shall be recoverable separately from and in addition to any other amount included in such judgment, and such attorneys' fees obligation is intended to be severable from the other provisions of this Lease and to survive and not be merged into any such judgment.

(b) Reimbursement of Landlord's Costs. Whenever Tenant provides notice to Landlord, requests Landlord's consent under this Lease, or submits documents to Landlord for Landlord's review, including, without limitation, under Articles 10 or 17 hereof, Tenant shall pay to Landlord all reasonable costs and expenses, including attorneys' fees and disbursements, actually incurred by Landlord in connection therewith, provided that, upon Tenant's request, Landlord shall give Tenant an estimate of such costs and expenses.

33.8 Standards of Performance and Approvals. Unless otherwise provided in this Lease, whenever approval, consent or satisfaction (collectively, an "approval") is required of a party pursuant to this Lease or an Exhibit hereto, such approval shall not be unreasonably withheld, conditioned or delayed. Unless provision is made for a specific time period, approval (or disapproval) shall be given within thirty (30) days after receipt of the request for approval. Nothing contained in this Lease shall limit the right of a party to act or exercise its business judgment in a subjective manner with respect to any matter as to which it has been (i) specifically granted such right, (ii) granted the right to act in its sole discretion or sole judgment, or (iii) granted the right to make a subjective judgment hereunder, whether "objectively" reasonable under the circumstances, and any such exercise shall not be deemed inconsistent with any covenant of good faith and fair dealing implied by law to be part of this Lease. The parties have set forth in this Lease their entire understanding with respect to the terms, covenants, conditions and standards pursuant to which their obligations are to be judged and their performance measured, including the provisions of Article 17 with respect to assignments and sublettings.

33.9 Brokers. Landlord shall pay Landlord's Broker a commission in connection with this Lease to the extent set forth in a separate written agreement. Other than Landlord's Broker, Landlord and Tenant each represent and warrant to the other that no broker, agent, or finder has procured, or was involved in the negotiation of, this Lease and no such broker, agent or finder is or may be entitled to a fee, commission or other compensation in connection with this Lease. Landlord and Tenant shall each indemnify, defend, protect and hold the other harmless from and against Claims that may be asserted against the indemnified party in breach of the foregoing warranty and representation.

33.10 Memorandum of Lease. Tenant shall, upon request of Landlord or any Encumbrancer, execute, acknowledge and deliver a short form memorandum of this Lease (and any amendment hereto) in form suitable for recording. In no event shall this Lease or any memorandum thereof be recorded by Tenant.

33.11 Quiet Enjoyment. Upon paying the Rent and performing all its obligations under this Lease, Tenant may peacefully and quietly enjoy the Premises during the Term as against all persons or entities claiming by or through Landlord, subject, however, to the provisions of this Lease.

33.12 Force Maieure. Notwithstanding anything contained in this Lease to the contrary, if either party is unable to perform or delayed in performing any of its obligations under this Lease on account of strikes, lockouts, inclement weather, labor disputes, inability to obtain labor, materials, fuels, energy or reasonable substitutes therefor, governmental restrictions, regulations, governmental controls, moratorium, actions or inaction (including, without limitation, failure, refusal or delay in issuing permits, approvals or other authorizations), civil commotion, fire or other acts of God, national emergency, acts of war or terrorism, injunction or court order, or any other cause of any kind beyond the reasonable control of such party (except financial inability) (each a "Force Majeure Event"), such party shall not be in default under this Lease and such inability or delay by Landlord shall in no way constitute a constructive eviction of Tenant nor entitle Tenant to any abatement of Rent; *provided, however,* that nothing contained in this Section 33.12 shall (a) relieve Tenant from the obligation to timely pay Rent under this Lease, or (b) permit Tenant to holdover in the Premises after the expiration or earlier termination of this Lease.

33.13 Surrender of Premises. Upon the Expiration Date or earlier termination of this Lease, Tenant shall quietly and peacefully surrender the Premises to Landlord in the condition called for by this Lease, shall deliver to Landlord any keys to the Premises, or any other portion of the Project, and shall provide to Landlord the combination or code of locks on all safes, cabinets, vaults and security systems in the Premises. On or before the Expiration Date or earlier termination of this Lease, Tenant, at its cost and expense, shall remove all of its personal property from the Premises and repair all damage to the Project caused by such removal. In addition, Tenant, at its cost and expense, shall remove all Lines installed by or for Tenant that are located within the Premises or, in the case of Lines installed by or for Tenant and exclusively serving the Premises, anywhere in the Project, including, without limitation, the Building plenum, risers and all conduits, and repair all damage to the Project caused by such removal as follows: (i) in the case of the expiration of the Term, Tenant shall remove such Lines and repair such damage on or before the Expiration Date, unless Landlord notifies Tenant, at least thirty (30) days prior to the Expiration Date, that such Lines shall be surrendered with the Premises; and (ii) in the case of the earlier termination of this Lease, Tenant shall remove such Lines and repair such damage promptly after receipt of a notice from Landlord requiring such removal and repair. Any Lines not required to be removed pursuant to this Section shall become the property of Landlord (without payment by Landlord), and shall be surrendered in good condition and working order, lien free, and properly labeled with an identification system reasonably approved by Landlord. All personal property of Tenant not removed hereunder shall be deemed, at Landlord's option, to be abandoned by Tenant and Landlord may, without any liability to Tenant for loss or damage thereto or loss of use thereof, store such property in Tenant's name at Tenant's expense and/or dispose of the same in any manner permitted by law. Notwithstanding anything to the contrary, except for Lines and Equipment (which shall be removed in accordance with Section 32 above), Tenant shall have no obligations to remove any improvements or Alterations made to the Premises that are not Specialty Improvements.

33.14 Name of Building; Address. Landlord shall have the right at any time and from time to time to select the name of the Project or the Building and to make a change or changes to the name(s). Landlord shall have the right to install, affix and maintain any and all signs on the exterior and on the interior of the Project and/or the Building as Landlord may desire in Landlord's sole discretion. Tenant shall not refer to the Project or the Building by any name other than: (i) the names as selected by Landlord (as same may be changed from time to time), or (ii) the postal address approved by the United States Post Office. Tenant shall not use the name of the Project or the Building or use pictures or illustrations of the Project or the Building in advertising or other publicity or for any purpose other than as the address of the business to be conducted by Tenant in the Premises, without the prior written consent of Landlord. Tenant shall, in connection with all correspondence, mail or deliveries made to or from the Premises, use the official Building address specified from time to time by Landlord.

33.15 Exhibits. The Exhibits specified in the Basic Lease Information are by this reference made a part hereof

33.16 Survival of Obligations. The waivers of claims or rights, the releases and the obligations under this Lease to indemnify, protect, defend and hold harmless Landlord and other Indemnitees and Tenant shall survive the expiration or earlier termination of this Lease, and so shall all other obligations or agreements hereunder which by their terms or nature survive the expiration or earlier termination of this Lease.

33.17 Time of the Essence. Time is of the essence of this Lease and of the performance of each of the provisions contained in this Lease.

33.18 Waiver of Trial By Jury; Waiver of Counterclaim. IN GRAFTON PARTNERS L.P. v. SUPERIOR COURT, 36 CAL.4TH 944 (2005), THE CALIFORNIA SUPREME COURT RULED THAT CONTRACTUAL, PRE-DISPUTE JURY TRIAL WAIVERS ARE UNENFORCEABLE. THE PARTIES, HOWEVER, ANTICIPATE THAT THE CALIFORNIA LEGISLATURE WILL ENACT LEGISLATION TO PERMIT SUCH WAIVERS IN CERTAIN CASES. IN ANTICIPATION OF SUCH LEGISLATION, LANDLORD AND TENANT HEREBY WAIVE, AS OF THE EFFECTIVE DATE OF SUCH LEGISLATION AND TO THE EXTENT PERMITTED BY APPLICABLE REQUIREMENTS, TRIAL BY JURY IN ANY ACTION, PROCEEDING OR COUNTERCLAIM BROUGHT BY EITHER OF THE PARTIES HERETO AGAINST THE OTHER OR THEIR SUCCESSORS IN RESPECT OF ANY MATTER ARISING OUT OF OR IN CONNECTION WITH THIS LEASE, THE RELATIONSHIP OF LANDLORD AND TENANT, TENANT'S USE OR OCCUPANCY OF THE PREMISES, AND/OR ANY CLAIM FOR INJURY OR DAMAGE OR ANY EMERGENCY OR STATUTORY REMEDY. IF LANDLORD COMMENCES ANY SUMMARY PROCEEDINGS OR ACTION FOR NON-PAYMENT OF RENT, TENANT SHALL NOT INTERPOSE ANY COUNTERCLAIM OF ANY NATURE OR DESCRIPTION (UNLESS SUCH COUNTERCLAIM SHALL BE MANDATORY) IN ANY SUCH PROCEEDING OR ACTION, AND ANY SUCH COUNTERCLAIM SHALL BE RELEGATED TO AN INDEPENDENT ACTION AT LAW.

33.19 Consent to Venue. Tenant hereby waives any objection to venue in the City and County of San Francisco, and agrees and consents to the personal jurisdiction of the courts of the State of California with respect to any action or proceeding (i) brought by Landlord, Tenant or any other party, relating to (A) this Lease and/or any understandings or prior dealings between the parties hereto, or (B) the Premises, the Project, or any part thereof, or (ii) to which Landlord is a party.

33.20 Financial Statements. In connection with Landlord's sale or financing of the Building, and no more than once each calendar quarter, within ten (10) days after Landlord's request, Tenant shall deliver to Landlord, Tenant's most recent prepared quarterly financial statements (including a balance sheet, statement of cash flows and profit and loss statement for the most recent prior fiscal year for which annual statements are available and financial statements for interim periods following the end of the last fiscal year for which annual statements are available), together with a certificate of Tenant's auditor (or if audited financial statements are not available, then a certificate signed by an officer of Tenant) to the effect that such financial statements were prepared in accordance with GAAP and fairly present the financial condition and operations of Tenant for, and as of the end of, such fiscal year. In addition, for the purposes set forth above and no more than once each calendar quarter, within ten (10) days after Landlord's request, Tenant shall provide Landlord with such other information as Landlord reasonably deems necessary to evaluate Tenant's financial condition. The provisions of this Section 33,20 shall not apply while Tenant is a public company.

33.21 Subdivision; Future Ownership. Landlord reserves the right to subdivide all or portion of the Project Tenant agrees to execute and deliver, upon thirty (30) days' prior written notice by Landlord and in the form reasonably requested by Landlord, any additional documents needed to conform this Lease to the circumstances resulting from such subdivision. In addition, if the Building or the Parking Facility, or other portions of the Project are at any time owned by an entity other than Landlord, Landlord, at its option, may enter into agreements with such other owners to provide for (i) reciprocal rights of access and/or use, including in connection with repairs, maintenance, construction and/or excavation (ii) common management, operation, maintenance, improvement and/or repairs, and the allocation of operating expenses and taxes.

33.22 Modification of Lease. This Lease may be modified or amended only by an agreement in writing signed by both parties. Should any Encumbrancer require a modification of this Lease, or should Landlord be advised by counsel that any part of the payments by Tenant to Landlord under this Lease may be characterized as unrelated business income under the United States Internal Revenue Code and its regulations, then and in either such event, Tenant agrees that this Lease may be modified in writing by the parties as requested by the Encumbrancer or as may be required to avoid such characterization as unrelated business income, as the case may be, and Tenant agrees to reasonably cooperate with Landlord to execute whatever documents are reasonably required therefor; *provided, however,* that any such modification shall not increase any expense payable by Tenant hereunder or in any other way materially and adversely change the rights and obligations of Tenant hereunder.

33.23 No Option. The submission of this Lease to Tenant for review or execution does not create an option or constitute an offer to Tenant to lease the Premises on the terms and conditions contained herein, and this Lease shall not become effective unless and until it has been executed and delivered by both Landlord and Tenant.

33.24 Independent Covenants. This Lease shall be construed as though the covenants herein between Landlord and Tenant are independent, and Tenant hereby expressly waives the benefit of any statute to the contrary and agrees that if Landlord fails to perform its obligations set forth herein, Tenant shall not be entitled to make any repairs or perform any acts hereunder at Landlord’s expense or to any setoff of the Rent or other amounts owing hereunder against Landlord.

33.25 Compliance with Anti-Terrorism Law. Tenant represents to Landlord that Tenant is not in violation of any Anti-Terrorism Law, and that Tenant is not: (i) conducting any business or engaging in any transaction or dealing with any Prohibited Person, including the making or receiving of any contribution of funds, goods or services to or for the benefit of any Prohibited Person; (ii) dealing in, or otherwise engaging in any transaction relating to, any property or interests in property blocked pursuant to Executive Order No. 13224; or (iii) engaging in or conspiring to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate any of the prohibitions set forth in, any Anti-Terrorism Law. In addition, Tenant represents that neither Tenant nor to its knowledge any of its affiliates, nor any of their respective officers or directors, as applicable, is a Prohibited Person. If at any time any of the foregoing representations becomes false, it shall be considered a material default under this Lease.

33.26 First Source Hiring Program. The City and County of San Francisco adopted a City-wide “First Source Hiring Program” on August 3, 1998 by Ordinance No. 264 98, codified at San Francisco Administrative Code Sections 83.1-83.18. The First Source Hiring Program (“FSHP”) is designed to identify entry level positions associated with commercial activities and provide first interview opportunities to graduates of City-sponsored training programs. Tenant acknowledges that its activities on the Premises may be subject to FSHP. Although Landlord makes no representation or warranty as to the interpretation or application of FSHP to the Premises, or to Tenant's activities thereon, Ter acknowledges that (i) FSHP may impose obligations on Tenant, including good faith efforts to meet requirements and goals regarding interviewing, recruiting, hiring and retention of individuals for entry level positions; (ii) FSHP requirements could also apply to certain contracts and subcontracts entered into by Tenant regarding the Premises, including construction contracts; and (iii) FSHP requirements, if applicable, may be imposed as a condition of permits, including building permits, issued for construction or occupancy of the Premises.

33.27 Bankruptcy of Tenant. For purposes of Section 365(f)(2)(B) of the Bankruptcy Code (11 U.S.C. § 365(f)(2)(B)), the parties agree that the term "adequate assurance of future performance" with respect to any assumption or assignment of this Lease shall include, but not be limited to, the following:

(1) In order to ensure Landlord that the proposed assignee will have the resources with which to pay all Rent payable pursuant to the terms hereof, any proposed assignee must have, as demonstrated to Landlord's reasonable satisfaction, a Net Worth equal to the greater of (i) the Net Worth of Tenant at the time this Lease was executed, or (ii) a Net Worth consistent with the standards customarily applied by Landlord with respect to comparable tenancies in the Building.

(2) Any proposed assignee must have been engaged in the conduct of business for the five (5) years prior to any such proposed assignment, which business must be consistent with the Permitted Use specified in the Basic Lease Information.

(3) At Landlord's option, the proposed assignee must provide, in favor of Landlord, a letter of credit and/or a cash security deposit or other security for the performance of the obligations to be performed by Tenant or such assignee hereunder, equal to at least twelve (12) months' Base Rent.

33.28 Rent Not Based on Income. No Rent or other payment in respect of the Premises shall be based in any way upon net income or profits from the Premises. Tenant may not enter into or permit any sublease or license or other agreement in connection with the Premises which provides for a rental or other payment based on net income or profit.

33.29 Access. Following the Commencement Date, Tenant shall have the right of ingress and egress to the Premises twenty-four (24) hours per day, seven (7) days per week except when and where Tenant's right of access is specifically prevented as a result of (i) an emergency, (ii) Requirements, or (iii) a specific provision set forth in this Lease. At all such times, at least one (1) elevator servicing Tenant's floors shall continue to be operational.

33.30 Project or Building Name, Address and Signage. Landlord shall have the right at any time to change the name and/or address of the Project or the Building and to install, affix and maintain any and all signs on the exterior and on the interior of the Project or Building as Landlord may, in Landlord's sole discretion, desire. Tenant shall not use the name of the Project or Building or use exterior pictures or illustrations of the Project or Building in advertising or other publicity or for any purpose other than as the address of the business to be conducted by Tenant in the Premises, without the prior written consent of Landlord.

33.31 Counterparts. This Lease may be executed in counterpart. All such executed counterparts shall constitute the same agreement, and the signature of any party to any counterpart shall be deemed a signature to, and may be appended to, any other counterpart.

33.32 Business Days. In the event that the date for the performance of any cover or obligation under this Lease shall fall on a non-Business Day, the date for performance thereof shall be extended to the next Business Day

33.33 Certified Access Specialist. In accordance with California Civil Code Section 1938, Landlord hereby discloses that the Premises has not undergone inspection by a Certified Access Specialist. As required by Section 1938(e) of the California Civil Code, Landlord hereby states as follows:

> "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises."

In furtherance of the foregoing, by their execution of the Lease, Landlord and Tenant hereby agree that, without limiting Tenant's obligations to comply with Applicable Laws as provided in this Lease, Tenant, at its sole cost and expense, shall be solely responsible for making any improvements, alterations, modifications and/or repairs within or to the Premises then required by Applicable Laws to correct violations of construction-related accessibility standards as disclosed by any Tenant-performed CASp inspection, subject to the terms of Section 7.3.

33.34 Confidentiality. Except as expressly permitted in this Section 33.33, neither party nor its agents, servants, employees, invitees and contractors will, without the prior written consent of the other party, disclose or use any Confidential Information (as defined below) of the other party to any third party. "**Confidential Information**" means information of a party if either: (a) it is disclosed by the party to the other party in writing, orally or by inspection of tangible objects and is conspicuously marked "Confidential", "Proprietary" or the like; (b) it is disclosed by one party to the other party in nontangible form and is identified as confidential at the time of disclosure; or (c) would reasonably be understood, given the nature of the information or the circumstances surrounding its disclosure, to be confidential. Notwithstanding the foregoing, all financial information of Tenant provided to Landlord under this Agreement will be considered the Confidential Information of Tenant. In addition, notwithstanding anything in this Lease to the contrary, the terms of this Lease (but not its mere existence) will be deemed Confidential Information of each party. Other than the terms and conditions of this Lease, information will not be deemed Confidential Information hereunder if such information: (i) is publicly known and made generally available in the public domain prior to the time of disclosure by the disclosing party; (ii) becomes publicly known and made generally available after disclosure by the disclosing party to the receiving party through no action or inaction of the receiving party; (iii) is already in the possession of the receiving party at the time of disclosure by the disclosing party as shown by the receiving party's competent files and records prior to the time of disclosure; (iv) is independently developed by the receiving party without use of or reference to the disclosing party's Confidential Information, as shown by documents and other competent evidence in the receiving party's possession; or (v) is obtained by the receiving party from a third party lawfully in possession of such information and without a breach of such third party's obligations of confidentiality. The terms and conditions of this Lease will cease being confidential if, and only to the extent that, they become publicly known, except through a breach of this Section by a party. Each party will secure and protect the Confidential Information of the other p; ' (including, without limitation, the terms of this Lease) in a manner consistent with the steps taker protect its own trade secrets and confidential information, but not less than a reasonable degree of care. Each party may disclose the other party's Confidential Information where: (A) the disclosure is required by Applicable Law or by an order of a court or other governmental body having jurisdiction after giving reasonable notice to the other party with adequate time for such other party to seek a protective order; (B) if in the opinion of counsel for such party, disclosure is advisable under any applicable securities laws regarding public disclosure of business information; (C) the disclosure is reasonably necessary and is to that party's or its affiliates' employees, officers, directors, attorneys, accountants, consultants and other advisors, or to Landlord's mortgage lender and its counsel, or the disclosure is otherwise necessary for a party to exercise its rights and perform its obligations under this Lease, so long as in all cases the disclosure is no broader than necessary

and the party who receives the disclosure is bound by confidentiality obligations as restrictive as the terms herein; or (D) the disclosure is reasonably necessary for a party to conclude a business transaction provided that the party who receives the disclosure is bound by confidentiality obligations as restrictive as the terms herein. Each party is responsible for ensuring that any Confidential Information of the other party that the first party discloses pursuant to this Section 33.34 is kept confidential by the person receiving the disclosure. Without limiting the generality of this Section 33.34, neither party will, directly or indirectly issue any written press release regarding this Lease (except as required by Applicable Law), or use the other party's name for any commercial purposes or use any of the other party's trademarks, in each case, without the express prior written consent of the other party to be granted or withheld in such party's sole and absolute discretion.

34. Dogs.

34.1 General Conditions. Subject to the provisions of this Article 34, and such additional reasonable rules and regulations as shall be promulgated by Landlord and from time to time, Tenant shall be permitted to have and bring dogs in and to the Premises and the Project. At no time shall the number of dogs, in the aggregate, in the Premises exceed one (1) dog for every five thousand (5,000) RSF of the Premises: In addition, no individual person within Tenant's organization may bring more than one (1) dog into the Premises at any given time. All dogs shall be under the physical control and supervision of Tenant's employees at all times and must be on leashes while in any area of the Project outside of the Premises, including, but not limited to, interior and exterior Common Areas. All dogs brought into the Premises shall have been properly vaccinated, and Tenant shall provide Landlord with satisfactory evidence of such vaccinations within one (1) Business Day after request. All dogs must be up to date on all heartworm, flea, and tick preventative s. Tenant shall not permit any objectionable dog related noises or odors to emanate from the Premises. Tenant shall not allow dogs to relieve themselves of bodily waste inside the Building or any landscaped area of the Project. Tenant shall immediately cause all bodily waste from dogs brought into the Project by Tenant Parties to be placed in plastic bags and disposed of in trash receptacles designated by Landlord. Tenant shall not allow any dog in the Premises or the Project if such dog has previously exhibited dangerous aggressive behavior. Tenant shall not permit any dogs to interfere with other tenants or those having business in the Building. Tenant must have all dog owners register their dog with the property management office and sign the Building dog policy.

34.2 Costs and Expenses. Tenant shall pay to Landlord, within ten (10) Business Days after demand, all costs incurred by Landlord in connection with Landlord allowing Tenant to bring dogs onto the Project, including, but not limited to, insurance, janitorial, waste disposal, landscaping, signage, repair, administrative, and legal costs and expenses.

34.3 Insurance; Indemnity. Tenant shall cause the insurance policies required to be maintained pursuant to Article 14 above to cover Claims arising from or in connection with dogs brought into the Premises, the Project or the Parking Facility by Tenant Parties, and Tenant shall provide Landlord with satisfactory evidence of such coverage within one (1) Business Day after request. Without limiting the provisions of Section 16,2 above, Tenant hereby agrees to protect, defend, indemnify and hold Landlord and the other Indemnitees, and each of them, harmless from and against any and all third p; Claims arising from or connected in any way with dogs brought into the Premises, the Project or the Parking Facility by Tenant Parties (except, with respect to any Indemnitee, to the extent caused by gross negligence or willful misconduct of such Indemnitee), including (i) all foreseeable and unforeseeable consequential damages, (ii) any violation of Applicable Laws, and (iii) any personal injuries or property damage. The foregoing indemnity shall survive the expiration or earlier termination of this Lease.

34.4 Repeat Defaults. If Tenant violates any of the provisions of this Article 34 three (3) or more times within any six (6) month period, then in addition to all other rights and remedies available to Landlord, Landlord shall have the right to terminate Tenant's right to bring dogs into the Project (except seeing eye dogs), even if Tenant cures such violations.

34.5 Rights Personal to Original Tenant. Tenant's right to bring dogs into the Premises pursuant to this Article 34 is personal to the Original Tenant (or any Related Company), and shall apply only to the portions of the Premises occupied by Tenant or a Related Company. If Original Tenant shall assign this Lease (other than to a Related Company) or sublet all or any portion of the Premises (other than to a Related Company), then immediately upon such assignment or subletting, the right to bring dogs into the Premises or such subleased space shall simultaneously terminate and be of no further force or effect during the term of such sublease.

[Signature Page Below]

IN WITNESS WHEREOF, the parties have executed this Lease as of the Lease Date.

LANDLORD:

BIG DOG HOLDINGS LLC,
a Delaware limited liability company

By: ZYNGA INC.,
a Delaware corporation, its sole member
its sole member
By: /s/ Ger Griffin
Name: Ger Griffin
Its: CFO

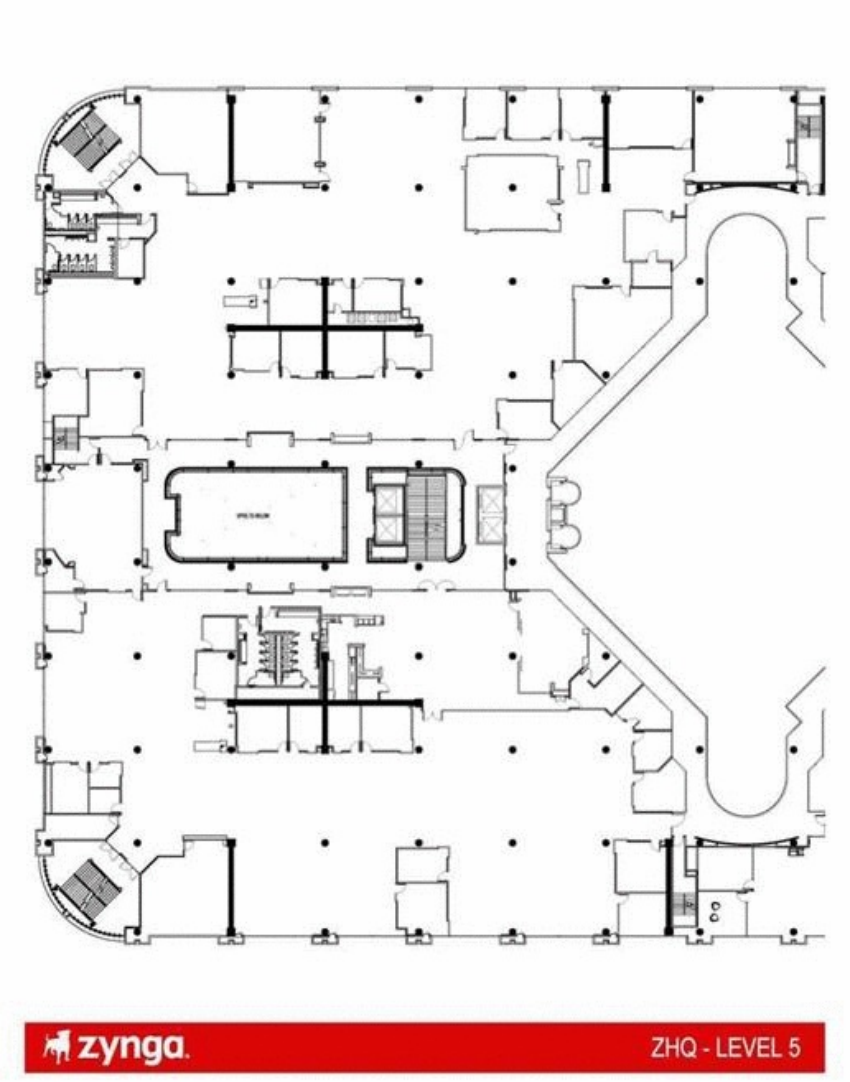
TENANT:

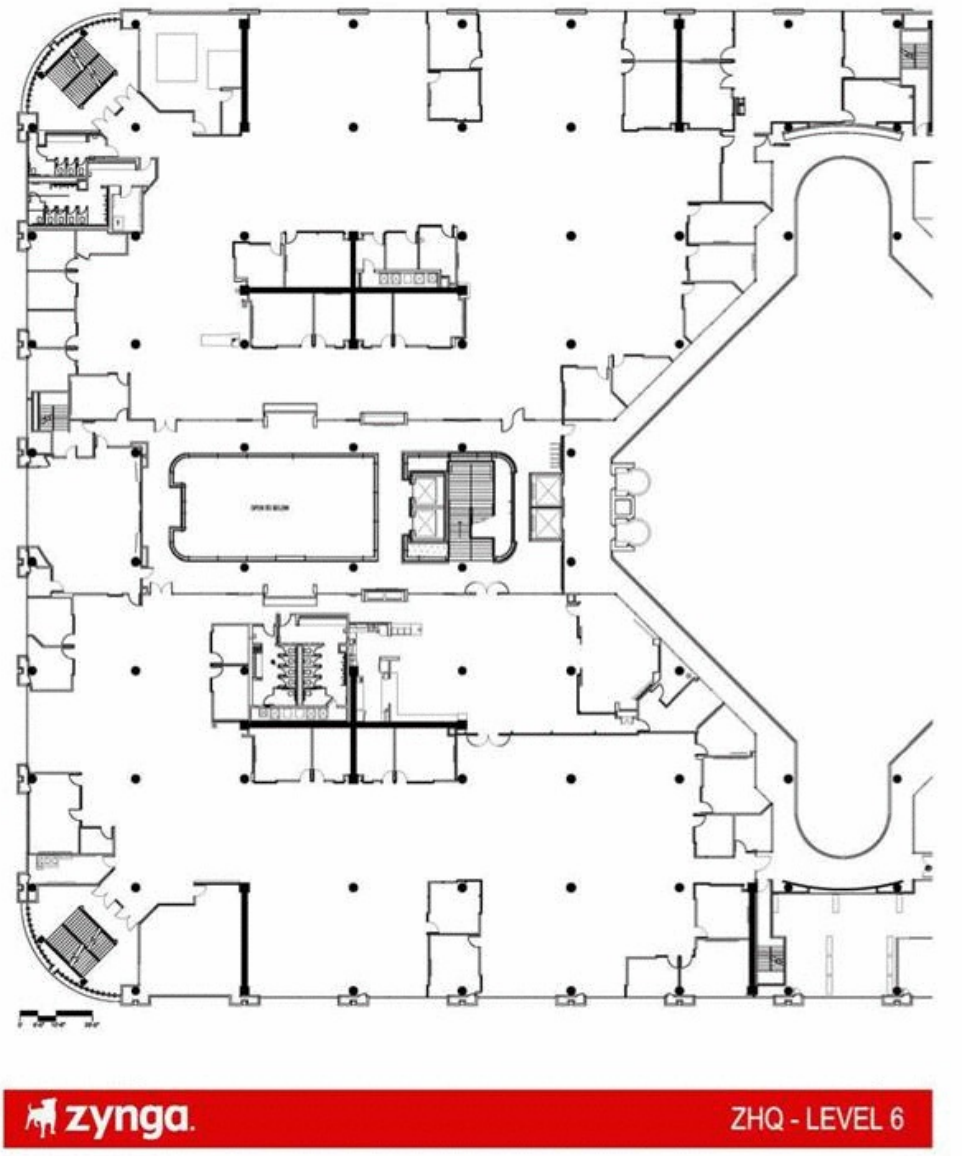
IRHYTHM TECHNOLOGIES, INC.,
a Delaware corporation

By: /s/ Matt Garrett
Name: Matt Garrett
Its: CFO

EXHIBIT A

FLOOR PLAN FOR THE PREMISES

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ZHQ - LEVEL 6

EXHIBIT B

RULES AND REGULATIONS

1. The Common Areas of the Project shall not be obstructed by Tenant or used by it for any purpose other than for ingress to and egress from the Premises. Landlord shall in all cases retain the right to control and prevent access to the Common Areas of all persons whose presence in the judgment of Landlord would be prejudicial to the safety, character, reputation and interests of the Project and its tenants, provided that nothing herein contained shall be construed to prevent such access to persons with whom Tenant normally deals in the ordinary course of its business, unless such persons are engaged in illegal activities. Tenant shall not go upon the roof of the Project, except in areas that Landlord may designate as "Common Areas" from time to time.

2. No awning, canopy or other projection of any kind over or around the windows or entrances of the Premises shall be installed by Tenant, and only such window coverings as are approved by Landlord shall be used in the Premises. Tenant shall not place any items within 18" of the interior glass window lines. Any film on windows between the Premises and Common Areas shall not be removed by Tenant without Landlord's prior written consent. If film removal is approved by Landlord, then (i) only Building standard blinds may be used on windows that front common corridors, (ii) no window coverings may be installed on windows that front the atrium of the Building, and (iii) all areas within the Premises that are visible through affected windows shall be maintained by Tenant at all times in a neat and orderly condition.

3. The Premises shall not be used for lodging or sleeping, nor shall cooking be done or permitted by Tenant on the Premises, except that the preparation of coffee, tea, hot chocolate and similar items for Tenant and its employees shall be permitted.

4. Any person or persons employed by Tenant to do janitorial work shall be subject to and under the control and direction of the Project property manager while in the Project and outside the Premises.

5. Landlord will furnish Tenant with two (2) keys to the Premises, free of charge. No additional locking devices shall be installed without the prior written consent of Landlord. Landlord may make reasonable charge for any additional lock or any bolt installed on any door of the Premises without the prior consent of Landlord. Tenant shall in each case furnish Landlord with a key for any such lock. Tenant, upon the termination of its tenancy, shall deliver to Landlord all keys to doors in the Project and the Premises that shall have been furnished to Tenant, together with security codes for security systems installed by Tenant in accordance with the Lease.

6. The freight elevator shall be available for use by Tenant, subject to such reasonable scheduling as Landlord shall deem appropriate. The persons employed by Tenant to move equipment or other items in or out of the Project must be reasonably acceptable to Landlord. Landlord shall have the right to reasonably prescribe the weight, size and position of all equipment, materials, supplies, furniture or other property brought into the Project. Heavy objects shall, if considered necessary by Landlord, stand on wood strips of such thickness as is necessary to properly distribute the weight of such objects. All damage done to the Project by Tenant in moving or maintaining Tenant's property shall be repaired at the expense of Tenant.

7. Tenant shall not use or keep in the Premises or the Project any kerosene, gasoline or flammable or combustible fluid or materials or use any method of heating or air conditioning other than 1 supplied by Landlord. Tenant shall not use, keep or permit or suffer the Premises to be occupied or used in a manner offensive or objectionable to Landlord or other occupants of the Project by reason of noise, odors and/or vibrations, or interfere in any way with other tenants or those having business in the Project. Except as set forth in the Lease, no other pets or animals shall be permitted in the Project or the Premises.

8. In case of invasion, mob, riot, public excitement or other circumstances rendering such action advisable in Landlord's reasonable opinion, Landlord reserves the right to prevent access to the Project during the continuance of same by such action as Landlord may deem appropriate, including closing entrances to the Project.

9. The doors of the Premises shall be closed and securely locked at such time as Tenant's employees leave the Premises.

10. The toilet rooms, toilets, urinals, wash bowls and other apparatus shall not be used for any purpose other than that for which they were constructed, no foreign substance of any kind whatsoever shall be deposited therein, and any damage resulting to same from Tenant's misuse shall be paid for by Tenant.

11. Except with the prior consent of Landlord, Tenant shall not sell, or permit the sale from the Premises of, or use or permit the use of any Common Area adjacent to the Premises for the sale of, newspapers, magazines, periodicals, theatre tickets or any other goods, merchandise or service, nor shall Tenant carry on, or permit or allow any employee or other person to carry on, business in or from the Premises for the service or accommodation of occupants of any other portion of the Project, nor shall the Premises be used for manufacturing of any kind, or for any business or activity other than the specifically provided for in the Lease.

12. Tenant shall not install any radio or television antenna, loudspeaker or other device on the roof or exterior walls of the Project.

13. Tenant shall not use in any space, or in the Common Areas of the Project, any handtrucks except those equipped with rubber tires and side guards or such other material handling-equipment as Landlord may approve. No bicycles, motorcycles, or other vehicles of any kind shall be brought by Tenant into the Project or kept in or about the Premises; except that motor vehicles may be parked at the Project by Tenant in accordance with the provisions of the Lease and bicycles may be parked in designated portions of the Common Areas.

14. Tenant shall store all its trash and garbage within the Premises until daily removal of same by Tenant to such location in the Project as may be designated from time to time by Landlord. No material shall be placed in the Project trash boxes or receptacles if such material is of such nature that it may not be disposed of in the ordinary and customary manner of removing and disposing of trash and garbage in the City of San Francisco without being in violation of any law or ordinance governing such disposal.

15. All loading and unloading of merchandise, supplies, materials, garbage and refuse and delivery of same to the Premises shall be made only through such entryways and elevators and at such times as Landlord shall designate. In its use of the loading areas on the first basement floor, Tenant shall not obstruct or permit the obstruction of said loading areas, and at no time shall Tenant park vehicles therein except for loading and unloading.

16. Canvassing, soliciting, peddling or distribution of handbills or any other written material in he Project is prohibited and Tenant shall cooperate to prevent same.

17. Tenant shall not permit the use or the operation of any coin operated machines on the Premises, including, without limitation, vending machines, video games, pinball machines, or pay telephones without the prior written consent of Landlord.

18. Landlord may direct the use of all pest extermination and scavenger contractors at such intervals as Landlord may require.

19. Tenant shall immediately, upon request from Landlord (which request need not be in writing), reduce its lighting in the Premises for temporary periods designated by Landlord, when required in Landlord's judgment to prevent overloads of the mechanical or electrical systems of the Project.

20. The requirements of Tenant will be attended to only upon application by telephone or in person at the office of the Project. Employees of Landlord shall not perform any work or do anything outside of their regular duties unless under special instructions from Landlord.

21. Landlord may waive any one or more of these Rules and Regulations for the benefit of any particular tenant or tenants, but no such waiver by Landlord shall be construed as a waiver of these Rules and Regulations in favor of any other tenant or tenants, nor prevent Landlord from thereafter enforcing any such Rules and Regulations against any or all of the tenants of the Project.

22. Wherever the word “Tenant” occurs in these Rules and Regulations, it is understood and agreed that it shall mean Tenant and other Tenant Parties.

23. These Rules and Regulations are in addition to, and shall not be construed in any way to modify, alter or amend, in whole or part, the terms, covenants, agreements and conditions of any lease of premises in the Project.

24. Landlord reserves the right to make such other reasonable rules and regulations as in its judgment may from time to time be needed for the safety, care and cleanliness of the Project, and for the preservation of good order therein.

25. Tenant must comply with the State of California "**No-Smoking**" law set forth in California Labor Code Section 6404.5, and any local "No-Smoking" ordinance which may be in effect from time to time and which is not superseded by such State law.

EXHIBIT C

CONFIRMATION OF LEASE DATES

THIS CONFIRMATION OF LEASE DATES is made this _____day of_____,20_____between BIG DOG HOLDINGS, LLC, a Delaware limited liability company ("**Landlord**"), and IRHYTHM TECHNOLOGIES, INC., a Delaware corporation ("**Tenant**").

W I T N E S S E T H:

WHEREAS, by Office Lease dated the_____day of_____, 20_____, between the parties hereto (the "Lease"), Landlord leased to Tenant and Tenant leased from Landlord for the Term and upon the terms and conditions set forth therein certain premises located at 650 Townsend Street, San Francisco, California, said premises being more particularly designated in the Lease; and

WHEREAS, the parties hereto wish to confirm certain dates for purposes of the Lease. NOW, THEREFORE, the parties hereto mutually agree as follows:

1. All terms used herein, as indicated by the initial capitalization thereof, shall have the same respective meanings designated for such terms in the Lease.

2. The Commencement Date shall mean_____.

3. The Rent Commencement Date shall mean_____.

4. Any work required to be performed by Landlord under the Lease has been completed in the manner required thereunder as of the Commencement Date.

Signature Page Follows

IN WITNESS WHEREOF, the parties hereto have caused this Confirmation of Lease Dates to be executed as the day and year first above written.

LANDLORD:

BIG DOG HOLDINGS LLC,
a Delaware limited liability company

By: ZYNGA INC.,
a Delaware corporation,
its sole member

By: _____
Name: _____
Its: _____

TENANT:

IRHYTHM TECHNOLOGIES, INC.,
a Delaware corporation

By: _____
Name: _____
Its: _____

EXHIBIT D

FORM LETTER OF CREDIT

IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER

ISSUE DATE:

ISSUING BANK:

SILICON VALLEY BANK
3003 TASMAN DRIVE
2ND FLOOR, MAIL SORT HF210
SANTA CLARA, CALIFORNIA 95054

BENEFICIARY:

_____
_____
_____
_____

APPLICANT:

_____
_____
_____
_____

AMOUNT: US$ _____ (_____ AND XX/100 U.S. DOLLARS)

EXPIRATION DATE: _____

LOCATION: SANTA CLARA, CALIFORNIA

DEAR SIR/MADAM:

WE HEREBY ESTABLISH OUR IRREVOCABLE STANDBY LETTER OF CREDIT NO. SVBSFIN YOUR FAVOR AVAILABLE BY YOUR DRAFTS DRAWN ON US AT SIGHT IN THE FORM OF EXHIBIT "A" ATTACHED AND ACCOMPANIED BY THE FOLLOWING DOCUMENTS:

1. THE ORIGINAL OF THIS LETTER OF CREDIT AND ALL AMENDMENT(S), IF ANY.

2. BENEFICIARY'S SIGNED STATEMENT STATING AS FOLLOWS:

"AN EVENT OF DEFAULT (AS DEFINED IN THE LEASE) HAS OCCURRED BY _____AS TENANT UNDER EITHER (I) THAT CERTAIN LEASE AGREEMENT BETWEEN TENANT, AND _____AS LANDLORD DATED _____, OR (II) THAT CERTAIN LEASE AGREEMENT BETWEEN TENANT, AND _____ AS LANDLORD. FURTHERMORE

THIS IS TO CERTIFY THAT: (i) LANDLORD HAS GIVEN WRITTEN NOTICE TO TENANT TO CURE THE DEFAULT PURSUANT TO THE TERMS OF THE APPLICABLE LEASE; (ii) SUCH DEFAULT HAS NOT BEEN CURED UP TO THIS DATE OF DRAWING UNDER THIS LETTER OF CREDIT; AND (iii) LANDLORD IS AUTHORIZED TO DRAW DOWN ON THE LETTER OF CREDIT AND THAT LANDLORD WILL HOLD THE FUNDS DRAWN UNDER THIS LETTER OF CREDIT AS SECURITY DEPOSIT FOR TENANT OR APPLY SAID FUNDS TO TENANT'S OBLIGATION UNDER THE APPLICABLE LEASE."

PARTIAL DRAWS AND MULTIPLE PRESENTATIONS ARE ALLOWED.

THIS ORIGINAL LETTER OF CREDIT MUST ACCOMPANY ANY DRAWINGS HEREUNDER FOR ENDORSEMENT OF THE DRAWING AMOUNT AND WILL BE RETURNED TO THE BENEFICIARY UNLESS IT IS FULLY UTILIZED.

THIS LETTER OF CREDIT SHALL BE AUTOMATICALLY EXTENDED FOR AN ADDITIONAL PERIOD OF ONE YEAR, WITHOUT AMENDMENT, FROM THE PRESENT OR EACH FUTURE EXPIRATION DATE UNLESS AT LEAST 60 DAYS PRIOR TO THE THEN CURRENT EXPIRATION DATE WE SEND YOU A NOTICE BY REGISTERED MAIL OR OVERNIGHT COURIER SERVICE AT THE ABOVE ADDRESS THAT THIS LETTER OF CREDIT WILL NOT BE EXTENDED BEYOND THE CURRENT EXPIRATION DATE. IN NO EVENT SHALL THIS LETTER OF CREDIT BE AUTOMATICALLY EXTENDED BEYOND . _____[OPTIONAL PARAGRAPH]

THIS LETTER OF CREDIT IS TRANSFERABLE ONE OR MORE TIMES, BUT IN EACH INSTANCE ONLY TO A SINGLE BENEFICIARY AS TRANSFEREE AND ONLY UP TO THE THEN AVAILABLE AMOUNT, ASSUMING SUCH TRANSFER TO SUCH TRANSFEREE WOULD BE IN COMPLIANCE WITH THEN APPLICABLE LAW AND REGULATION, INCLUDING BUT NOT LIMITED TO THE REGULATIONS OF THE U.S. DEPARTMENT OF TREASURY AND U.S. DEPARTMENT OF COMMERCE. AT THE TIME OF TRANSFER, THE ORIGINAL LETTER OF CREDIT AND ORIGINAL AMENDMENT(S), IF ANY, MUST BE SURRENDERED TO US AT OUR ADDRESS INDICATED IN THIS LETTER OF CREDIT TOGETHER WITH OUR TRANSFER FORM ATTACHED HERETO AS EXHIBIT B DULY EXECUTED. THE CORRECTNESS OF THE SIGNATURE AND TITLE OF THE PERSON SIGNING THE TRANSFER FORM MUST BE VERIFIED BY BENEFICIARY'S BANK. [OPTIONAL PARAGRAPH] SHALL PAY OUR TRANSFER FEE OF % OF 1% OF THE TRANSFER AMOUNT (MINIMUM US$250.00) UNDER THIS LETTER OF CREDIT. EACH TRANSFER SHALL BE EVIDENCED BY OUR ENDORSEMENT ON THE REVERSE OF THE LETTER OF CREDIT AND WE SHALL FORWARD THE ORIGINAL OF THE LETTER OF CREDIT SO ENDORSED TO THE TRANSFEREE. [OPTIONAL PARAGRAPH]

DRAFT(S) AND DOCUMENTS MUST INDICATE THE NUMBER AND DATE OF THIS LETTER OF CREDIT.

DOCUMENTS MUST BE FORWARDED TO US BY OVERNIGHT DELIVERY SERVICE TO: SILICON VALLEY BANK, 3003 TASMAN DRIVE, SANTA CLARA CA 95054, ATTN: INTERNATIONAL DIVISION.

WE HEREBY AGREE WITH THE BENEFICIARY THAT THE DRAFTS DRAWN UNDER AND IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS LETTER OF CREDIT SHALL BE DULY HONORED UPON PRESENTATION TO US ON OR BEFORE THE EXPIRATION DATE OF THIS LETTER OF CREDIT.

IF ANY INSTRUCTIONS ACCOMPANYING A DRAWING UNDER THIS LETTER OF CREDIT REQUEST THAT PAYMENT IS TO BE MADE BY TRANSFER TO YOUR ACCOUNT WITH ANOTHER BANK, WE WILL ONLY EFFECT SUCH PAYMENT BY FED WIRE TO A U.S. REGULATED BANK, AND WE AND/OR SUCH OTHER BANK MAY RELY ON AN ACCOUNT NUMBER SPECIFIED IN SUCH INSTRUCTIONS EVEN IF THE NUMBER IDENTIFIES A PERSON OR ENTITY DIFFERENT FROM THE INTENDED PAYEE.

THIS LETTER OF CREDIT IS SUBJECT TO THE INTERNATIONAL STANDBY PRACTICES (ISP98), INTERNATIONAL CHAMBER OF COMMERCE, PUBLICATION NO. 590.

AUTHORIZED SIGNATURE	AUTHORIZED SIGNATURE

IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER_____

EXHIBIT "A"

DATE: _____ REF. NO. _____

AT SIGHT OF THIS DRAFT

PAY TO THE ORDER OF _____ US$_____

US DOLLARS _____

DRAWN UNDER SILICON VALLEY BANK, SANTA CLARA, CALIFORNIA, STANDBY

LETTER OF CREDIT NUMBER NO. _____ DATED _____

TO: SILICON VALLEY BANK
3003 TASMAN DRIVE
SANTA CLARA, CA 95054

(BENEFICIARY'S NAME)

Authorized Signature

GUIDELINES TO PREPARE THE DRAFT

1. DATE: ISSUANCE DATE OF DRAFT.
2. REF. NO.: BENEFICIARY'S REFERENCE NUMBER, IF ANY.
3. PAY TO THE ORDER OF: NAME OF BENEFICIARY AS INDICATED IN THE L/C (MAKE SURE BENEFICIARY ENDORSES IT ON THE REVERSE SIDE).
4. US$: AMOUNT OF DRAWING IN FIGURES.
5. USDOLLARS: AMOUNT OF DRAWING IN WORDS.
6. LETTER OF CREDIT NUMBER: SILICON VALLEY BANK'S STANDBY L/C NUMBER THAT PERTAINS TO THE DRAWING.
7. DATED: ISSUANCE DATE OF THE STANDBY L/C.
8. BENEFICIARY'S NAME: NAME OF BENEFICIARY AS INDICATED IN THE L/C.
9. AUTHORIZED SIGNATURE: SIGNED BY AN AUTHORIZED SIGNER OF BENEFICIARY.

IF YOU HAVE QUESTIONS RELATED TO THIS STANDBY LETTER OF CREDIT PLEASE CONTACT US AT_____ .

IRREVOCABLE STANDBY LETTER OF CREDIT NUMBER_____

EXHIBIT
TRANSFER FORM

DATE:

TO: SILICON VALLEY BANK 3003 TASMAN DRIVE SANTA CLARA, CA 95054 ATTN: INTERNATIONAL DIVISION STANDBY LETTERS OF CREDIT	RE: IRREVOCABLE STANDBY LETTER OF CREDIT NO._____ISSUED BY SILICON VALLEY BANK, SANTA CLARA L/C AMOUNT: _____

GENTLEMEN:

FOR VALUE RECEIVED, THE UNDERSIGNED BENEFICIARY HEREBY IRREVOCABLY TRANSFERS TO:

_____

(NAME OF TRANSFEREE) (ADDRESS)

_____

(ADDRESS)

ALL RIGHTS OF THE UNDERSIGNED BENEFICIARY TO DRAW UNDER THE ABOVE LETTER OF CREDIT UP TO ITS AVAILABLE AMOUNT AS SHOWN ABOVE AS OF THE DATE OF THIS TRANSFER.

BY THIS TRANSFER, ALL RIGHTS OF THE UNDERSIGNED BENEFICIARY IN SUCH LETTER OF CREDIT ARE TRANSFERRED TO THE TRANSFEREE. TRANSFEREE SHALL HAVE THE SOLE RIGHTS AS BENEFICIARY THEREOF, INCLUDING SOLE RIGHTS RELATING TO ANY AMENDMENTS, WHETHER INCREASES OR EXTENSIONS OR OTHER AMENDMENTS, AND WHETHER NOW EXISTING OR HEREAFTER MADE. ALL AMENDMENTS ARE TO BE ADVISED DIRECTLY TO THE TRANSFEREE WITHOUT NECESSITY OF ANY CONSENT OF OR NOTICE TO THE UNDERSIGNED BENEFICIARY.

THE ORIGINAL OF SUCH LETTER OF CREDIT IS RETURNED HEREWITH, AND WE ASK YOU TO ENDORSE THE TRANSFER ON THE REVERSE THEREOF, AND FORWARD IT DIRECTLY TO THE TRANSFEREE WITH YOUR CUSTOMARY NOTICE OF TRANSFER.

SINCERELY,

_____
(BENEFICIARY'S NAME)

_____
(SIGNATURE OF BENEFICIARY)

_____
(NAME AND TITLE)

SIGNATURE AUTHENTICATED

The name(s), title(s), and signature(s) conform to that/those on file with us for the company and the signature(s) is/are authorized to execute this instrument.

We further confirm that the company has been identified applying the appropriate due diligence and enhanced due diligence as required by BSA and all its subsequent amendments.

(Name of Bank)

(Address of Bank)

(City, State, ZIP Code)

(Authorized Name and Title)

(Authorized Signature)

(Telephone number)

EXHIBIT E

RIGHT OF FIRST OFFER

1. Right of First Offer. Subject to the terms and conditions of this Exhibit E, Landlord hereby grants to the Original Tenant (or any Related Company) a one-time right of first offer (the "**Right of First Offer**") with respect to space on the western side of the Building located on the fourth (4th) floor (the "**First Offer Space**"). Notwithstanding anything to the contrary set forth in this Section 1, such first offer right of Tenant shall be subject and subordinate to the rights of any Landlord Entity occupying any portion of the First Offer Space, whether or not pursuant to an express written provision in a lease with said Landlord Entity (any such Landlord Entities being referred to as a "**Superior Right Holders**"). In addition, if any Landlord Entity desires, in good faith, to occupy all or any portion of the First Offer Space for its or their personal use, then any of such parties may so occupy such portion of the First Offer Space, without Landlord having any obligation to offer such portion(s) of the First Offer Space to Tenant for lease pursuant to this Exhibit E.

2. Procedure for Offer. Landlord shall give at least two (2) months prior written notice to Tenant (the "**First Offer Notice**") of when the First Offer Space, or any portion thereof, becomes available for lease to third parties, provided that no Superior Right Holder wishes to lease such space and no Landlord Entity desires in good faith to occupy all or any portion of such space for its or their personal use. Pursuant to such First Offer Notice, Landlord shall offer to lease to Tenant the then available First Offer Space. The First Offer Notice shall describe the space so offered to Tenant and shall set forth the rent payable for the First Offer Space ("**First Offer Rent**") and the other economic terms upon which Landlord is willing to lease such space to Tenant; provided, however, the term of the First Offer Space shall be coterminous with the Term of the Lease, and Rent for the First Offer Space shall commence upon the earlier of (i) Tenant's occupancy of the First Offer Space, and (ii) one hundred twenty (120) days following delivery of the First Offer Space to Tenant, and shall terminate on the date set forth in the First Offer Notice.

3. Procedure for Acceptance. If Tenant wishes to exercise Tenant's right of first offer with respect to the space described in the First Offer Notice, then within five (5) Business Days of delivery of the First Offer Notice to Tenant, Tenant shall deliver written notice to Landlord (the "**First Offer Exercise Notice**") exercising its right of first offer with respect to the entire space described in the First Offer Notice on the terms contained in such notice. If Landlord does not receive the First Offer Exercise Notice and the Reporting Package within five (5) Business Days of delivery of the First Offer Notice to Tenant, then Landlord shall be free to lease the space described in the First Offer Notice to anyone to whom Landlord desires on any terms Landlord desires (an "**Intervening Lease**"), and Tenant shall have no further rights to lease the First Offer Space, notwithstanding any subsequent vacancy thereof, whether upon the expiration or earlier termination of the Intervening Lease or otherwise.

4. Amendment to Lease. If Tenant timely exercises Tenant's right to lease the applicable First Offer Space as set forth herein, Landlord and Tenant shall promptly thereafter execute a lease amendment for such First Offer Space upon the terms and conditions as set forth in the First Offer Notice and this Exhibit E; provided, however, that an otherwise valid exercise of such Right of First Offer shall be fully effective whether or not a lease amendment is executed.

5. No Default. If, as of the date of delivery of a First Offer Exercise Notice or as of +u~ commencement of the term with respect to any First Offer Space any Event of Default exists under Lease, then at Landlord's election Tenant's exercise of the Right of First Offer shall be null and void i Landlord shall have no obligation to lease the applicable First Offer Space to Tenant.

6. Termination of Right of First Offer. Tenant's rights set forth in this Exhibit E are personal to the Original Tenant (or any Related Company). If Tenant shall assign this Lease (other than to a Related Company) or sublet more than fifty percent (50%) of the Premises for substantially all of the remainder of the then current term of this Lease (other than to a Related Company), then immediately upon such assignment or subletting, the rights set forth in this Exhibit E shall simultaneously terminate and be of no further force or effect.

EXHIBIT F
EXTENSION OPTION

1. Option Right. Landlord hereby grants to the Original Tenant (or any Related Company), one (1) option to extend (the "**Extension Option**") the Term for the entire Premises for a period of five (5) years on the same terms and conditions as this Lease (other than Base Rent) (the "**Option Term**"). For purposes of clarification, Tenant shall not have the right to exercise the Extension Option for less than the entire Premises. Such option to extend shall be exercisable only by notice delivered by Tenant to Landlord as provided in Section 3 below, provided that, as of the date of delivery of such notice and as of the commencement of the Option Term, no Event of Default exists under this Lease. The rights contained in this Section 1 shall be personal to the Original Tenant (or any Related Company) and may only be exercised by the Original Tenant (or any Related Company), so long as Tenant has not subleased more than fifty percent (50%) of the Premises other than to a Related Company. In the event that Tenant fails to timely exercise its option to extend in accordance with the terms of this Section 1, then the option to extend granted to Tenant pursuant to the terms of this Section 1 shall automatically terminate and shall be of no further force or effect.

2. Option Rent. The Base Rent payable by Tenant during the Option Term (the "**Option Rent**") shall be equal to the Fair Market Rent (as defined in Schedule 1 attached to this Exhibit F). The calculation of the Fair Market Rent shall be derived from a review of, and comparison to, the Net Equivalent Lease Rates of the Comparable Transactions (each as defined in Schedule 1 attached hereto) in the manner provided for in Schedule 1 attached hereto.

3. Exercise of Option. The option contained in Section 1 above shall be exercised by Tenant, if at all, and only in the following manner: (i) Tenant shall deliver written notice (the "**Option Exercise Notice**") to Landlord not more than eighteen (18) months nor less than fifteen (15) months prior to the expiration of the Term, stating that Tenant is exercising its option; (ii) Landlord shall, within sixty (60) calendar days following Landlord's receipt of the Option Exercise Notice, deliver notice (the "**Option Rent Notice**") to Tenant setting forth the Option Rent; and (iii) Tenant shall, on or before the date occurring thirty (30) days after Tenant's receipt of the Option Rent Notice, deliver written notice thereof to Landlord ("**Option Acceptance Notice**"), by which Tenant shall accept or reject the Option Rent set forth in the Option Rent Notice. If Tenant timely delivered the Option Acceptance Notice to Landlord but failed to accept or reject the Option Rent set forth in the Option Rent Notice by delivery of an Option Acceptance Notice, then Tenant shall be deemed to have accepted the Option Rent set forth in the Option Rent Notice. Notwithstanding anything to the contrary set forth herein, Landlord may deliver written notice (the "**Option Recapture Notice**") to Tenant within sixty (60) days after receipt of the Option Exercise Notice that as of the date of the Option Recapture Notice any Landlord Entity intends in good faith to reoccupy all of the Premises or all of the space then leased by Tenant on any given floor or floors of the Building for its or their personal use after the Expiration Date, in which case, (I) if any Landlord Entity intends in good faith to reoccupy all of the Premises for its or their personal use after the Expiration Date, then Tenant's exercise of the Extension Option shall be deemed null and void and Tenant shall have no right to extend the Term of this Lease, or (II) if any Landlord Entity intends to reoccupy all of the space then leased by Tenant on any given floor or floors of the Building (but not the entire Premises) for its or their personal use after the Expiration Date, then (w) Tenant's exercise of the Extension Option shall be deemed null and void as to such portion of the Premises that such Landlord Entity intends to reoccupy as specified by Landlord, (x) Tenant shall have no right to extend the Term of this Lease as to such floor or floors of the Premises, (y) at the expiration of the initial Term, Tenant shall surrender such floor or floors of the Premises to Landlord in the condition Tenant is required to surrender the Premises under this Lease on the Expiration Date (and Tenant's failure to so surrender such floor or floors of the Premises on such date shall be deemed a holding over subject to Article 25 of this Lease), and (z) the Base Rent and other amounts under this Lease which vary based on the RSF of the Premises shall be adjusted in the same manner as set forth in Section 17.7 of this Lease. If Landlord exercises the right set forth in clause (II) of the preceding sentence, then Tenant may elect to rescind Tenant's Option Exercise Notice within sixty (60) days after receipt of Landlord's written notice, in which case, Tenant's Option Exercise Notice shall be null and void and of no further force and effect and the Term shall expire on the Expiration Date.

4. Determination of Option Rent. If Tenant rejects Landlord's determination of Option Rent, and Landlord and Tenant fail to reach agreement, after negotiating in good faith, upon the Option Rent applicable to the Option Term on or before the date that is one hundred eighty (180) days prior to the expiration of the initial Term, the "**Outside Agreement Date**"), then the Option Rent shall be determined by arbitration as set forth below, and each party shall thereafter make a separate determination of the Option Rent within ten (10) days of the Outside Agreement Date, and such determinations shall be submitted to arbitration in accordance with Section 5 below.

5. Arbitration.

(a) Landlord and Tenant shall each appoint one arbitrator who shall by profession be an MAI appraiser who shall have been active over the five (5) year period ending on the date of such appointment in the appraising of Class "A" office properties in San Francisco, California. The determination of the arbitrators shall be limited solely to the issue area of whether Landlord's or Tenant's submitted Option Rent is the closest to the actual Option Rent as determined by the arbitrators. Each such arbitrator shall be appointed within thirty (30) days after the Outside Agreement Date. Landlord and Tenant may consult with their selected arbitrators prior to appointment and may select an arbitrator who is favorable to their respective positions (including an arbitrator who has previously represented Landlord and/or Tenant, as applicable). The arbitrators so selected by Landlord and Tenant shall be deemed "**Advocate Arbitrators**." If either party fails to timely appoint an Advocate Arbitrator, then the other party may deliver written notice of such failure to the party that failed to timely appoint an Advocate Arbitrator, and if such failure is not cured within five (5) Business Days following receipt of such written notice, then the Advocate Arbitrator timely appointed by the other party shall determine the Option Rent and such determination shall be binding upon the parties. If either party fails to timely submit its determination of the Option Rent then the other party shall have the right to deliver a notice to the failed party expressly referencing this Section 5 and the time period for performance hereunder, and if the failed party does not deliver its determination of the Option Rent within three (3) Business Days following its receipt of such notice, then the determination of the other party timely submitted shall be deemed to be the Option Rent.

(b) Within ten (10) Business Days of the appointment of the last of the two Advocate Arbitrators, the Advocate Arbitrators shall agree upon and appoint a third arbitrator ("**Neutral Arbitrator**") who shall be qualified under the same criteria set forth hereinabove for qualification of the two Advocate Arbitrators except that (i) neither the Landlord or Tenant or either parties' Advocate Arbitrator may, directly or indirectly, consult with the Neutral Arbitrator prior or subsequent to his or her appearance, and (ii) the Neutral Arbitrator cannot be someone who has represented Landlord and/or Tenant or any of their affiliates during the five (5) year period prior to such appointment. The Neutral Arbitrator shall be retained via an engagement letter jointly prepared by Landlord's counsel and Tenant's counsel. If the two (2) Advocate Arbitrators cannot timely agree upon and appoint a Neutral Arbitrator, then Landlord and Tenant shall each apply to the Presiding Judge of the Superior Court of the County San Francisco to appoint the Neutral Arbitrator.

(c) Within ten (10) days following the appointment of the Neutral Arbitrator, Landlord and Tenant shall enter into an arbitration agreement (the "**Arbitration Agreement**") with the Neutral Arbitrator which shall set forth the following:

(i) the timing of the submittal of Landlord and Tenant as to what such party determines should be the Option Rent (provided that in any event, such submittals shall occur concurrently) and such submittals shall in any event occur no later than five (5) Business Days after appointment of the Neutral Arbitrator;

(ii) An agreement to be signed by the Neutral Arbitrator, the form of which agreement shall be attached as an exhibit to the Arbitration Agreement, whereby the Neutral Arbitrator shall agree to undertake the arbitration and render a decision in accordance with the terms of this Lease, and shall require the Neutral Arbitrator to demonstrate to the reasonable satisfaction of the parties that the Neutral Arbitrator has no conflicts of interest with either Landlord or Tenant;

(iii) That Landlord and Tenant shall each have the right to submit to the Neutral Arbitrator (with a copy to the other party), on or before the date that occurs fifteen (15) days following the appointment of the Neutral Arbitrator, an advocate statement (and any other information such party deems relevant) prepared by or on behalf of Landlord or Tenant, as the case may be, in support of Landlord's or Tenant's respective determination of Option Rent (the "**Briefs**");

(iv) That within five (5) Business Days following the exchange of Briefs, Landlord and Tenant shall each have the right to provide the Neutral Arbitrator (with a copy to the other party) with a written rebuttal to the other party's Brief (the "**Rebuttals**"); provided, however, such Rebuttals shall be limited to the facts and arguments raised in the other party's Brief and shall identify clearly which argument or fact of the other party's Brief is intended to be rebutted;

(v) The date, time and location of the arbitration, which shall be mutually and reasonably agreed upon by Landlord and Tenant, taking into consideration the schedules of the Neutral Arbitrator, the Advocate Arbitrators, Landlord and Tenant, and each party's applicable consultants, which date shall in any event be within forty-five (45) days following the appointment of the Neutral Arbitrator;

(vi) That no discovery shall take place in connection with the arbitration, other than to verify the factual information that is presented by Landlord or Tenant;

(vii) That the Neutral Arbitrator shall not be allowed to undertake an independent investigation or consider any factual information other than presented by Landlord or Tenant, except that the Neutral Arbitrator shall be permitted to visit the Building and the buildings containing the Comparable Transactions (as defined in Schedule 1 attached to this Exhibit F), and shall have the right to consider the factors set forth in Schedule 1 attached to this Exhibit F in determining which of Landlord's or Tenant's submittal most closely resembles the Neutral Arbitrator's determination of Fair Market Rent;

(viii) That Tenant shall have the right to present oral arguments to the Neutral Arbitrator at the arbitration for a period of time not to exceed two (2) hours ("**Tenant's Initial Statement**");

(ix) That following Tenant's Initial Statement, Landlord shall have the right to present oral arguments to the Neutral Arbitrator at the arbitration for a period of time not to exceed two (2) hours ("**Landlord's Initial Statement**");

(x) That following Landlord's Initial Statement, Tenant shall have up to one (1) additional hour to present additional arguments and/or to rebut the arguments of Landlord ("**Tenant's Rebuttal Statement**");

(xi) That following Tenant's Rebuttal Statement, Landlord shall have up to one (1) additional hour to present additional arguments and/or to rebut the arguments of Tenant ("**Landlord's Rebuttal Statement**");

(xii) That, not later than ten (10) Business Days after the date of the arbitration, the Neutral Arbitrator shall render a decision (the "**Ruling**") indicating whether Landlord's or Tenant's submitted Option Rent is closer to the Neutral Arbitrator's determination of what the Fair Market Rent should be for the Premises which Ruling shall set forth the facts and reasons for the decision of the Neutral Arbitrator;

(xiii) That following notification of the Ruling, Landlord's or Tenant's submitted Option Rent determination, whichever is selected by the Neutral Arbitrator as being closer to the his or her determination of Fair Market Rent, shall become the then applicable Option Rent; and

(xiv) That the decision of the Neutral Arbitrator shall be binding on Landlord and tenant.

(d) If the parties fail to enter into an Arbitration Agreement within ten (10) days following the appointment of the Neutral Arbitrator, then the arbitration shall nonetheless proceed in accordance with this Section 5 notwithstanding such failure.

(e) In the event that the Option Rent shall not have been determined pursuant to the terms hereof prior to the commencement of the Option Term, Tenant shall be required to pay the Option Rent initially provided by Landlord to Tenant, and upon the final determination of the Option Rent the payments made by Tenant shall be reconciled with the actual amounts due, and the appropriate party shall make any corresponding payment to the other party within thirty (30) calendar days after the Option Rent has been finally determined.

6. Amendment. After the Option Rent payable during the applicable Option Term is determined, the parties shall promptly execute an amendment to this Lease in a form reasonably acceptable to both parties extending the Lease Term and stating the amount of the Option Rent payable during the applicable Option Term.

[remainder of page intentionally left blank]

SCHEDULE 1 TO EXHIBIT F

FAIR MARKET RENT

When determining Fair Market Rent, the following rules and instructions shall be followed.

1. RELEVANT FACTORS. The Fair Market Rent shall be derived from an analysis (as such derivation and analysis are set forth in this Schedule 1) of the Net Equivalent Lease Rates of the Comparable Transactions (each as defined below). The "**Fair Market Rent"** shall be equal to the annual rent per RSF as would be applicable on the commencement of the Option Term at which tenants, are, pursuant to transactions consummated within the six (6) month period immediately preceding the first day of the Option Term (provided that timing adjustments shall be made to reflect any perceived changes which will occur in the Fair Market Rent following the date of any particular Comparable Transaction up to the date of the commencement of the Option Term) leasing non-sublease, non-encumbered, non-equity space comparable in location and quality to the Premises and consisting of comparable size space, for a comparable term, with comparable amenities and signage rights, in an arm's-length transaction, which comparable space is located in the Comparable Buildings (transactions satisfying the foregoing criteria shall be known as the "**Comparable Transactions**"). The terms of the Comparable Transactions shall be calculated as a Net Equivalent Lease Rate pursuant to the terms of this Schedule 1 and shall take into consideration only the following terms and concessions: (i) the rental rate and escalations for the Comparable Transactions; (ii) the amount of parking rent per parking permit paid in the Comparable Transactions; (iii) operating expense and tax escalation protection granted in such Comparable Transactions such as a base year or expense stop; (iv) tenant improvements or allowances provided or to be provided in Comparable Transactions, taking into account, the value of the existing improvements, if any, in the Premises, such value of existing improvements to be based upon the age, quality and layout of the improvements and the extent to which the same could be utilized by general office users (as contrasted to the Tenant); (v) rental abatement concessions, if any, being granted such tenants in connection with such comparable space; and (vi) distinctions between "gross" and "net" leases or leases which are net of electric.

2. TENANT IMPROVEMENT ALLOWANCE. If, in determining the Fair Market Rent for an Option Term, Tenant is entitled to a tenant improvement or comparable allowance for the improvement of the Option space (the "**Option Term TI Allowance**"), Landlord may, at Landlord's sole option, elect to grant all or a portion of the Option Term TI Allowance in accordance with the following: (A) to grant some or all of the Option Term TI Allowance to Tenant in the form as described above (i.e., as an improvement allowance), and/or (B) to offset against the rental rate component of the Fair Market Rent all or a portion of the Option Term TI Allowance (in which case such portion of the Option Term TI Allowance provided in the form of a rental offset shall not be granted to Tenant). To the extent Landlord elects not to grant the entire Option Term TI Allowance to Tenant as a tenant improvement allowance, the offset under item (B), above, shall equal the amount of the tenant improvement allowance not granted to Tenant as a tenant improvement allowance pursuant to the preceding sentence.

3. COMPARABLE BUILDINGS. Fair Market Rent shall be adjusted, if necessary, to take into consideration the size, age, quality of construction and appearance of the Comparable Buildings as they relate to the Building.

4. METHODOLOGY FOR REVIEWING AND COMPARING THE COMPARABLE TRANSACTIONS. In order to analyze the Comparable Transactions based on the factors to be considered in calculating Fair Market Rent, and given that the Comparable Transactions may vary in terms of length or term, rental rate, concessions, etc., the following steps shall be taken into consideration to "adjust" the objective data from each of the Comparable Transactions. By taking this approach, a "**Net Equivalent Lease Rate**" for each of the Comparable Transactions shall be determined using the following steps to adjust the Comparable Transactions, which will allow for an "apples to apples" comparison of the Comparable Transactions.

(i) The contractual rent payments for each of the Comparable Transactions should be arrayed monthly or annually over the lease term. All Comparable Transactions should be adjusted to simulate a net rent structure, wherein the tenant is responsible for the payment of all property operating expenses and taxes in a manner consistent with this Lease. This results in the estimate of "**Net Equivalent Rent**" received by each landlord for each Comparable Transaction being expressed as a periodic net rent payment.

(ii) Any free rent or similar inducements received over time should be deducted in the time period in which they occur, resulting in the net cash flow arrayed over the lease term.

(iii) The resultant net cash flow from the lease should be then discounted (using an annual discount rate equal to eight percent (8%)) to the lease commencement date, resulting in a net present value estimate.

(iv) From the net present value, up front inducements (improvements allowances and other concessions) should be deducted. These items should be deducted directly, on a "dollar for dollar" basis, without discounting since they are typically incurred at lease commencement, while rent (which is discounted) is a future receipt.

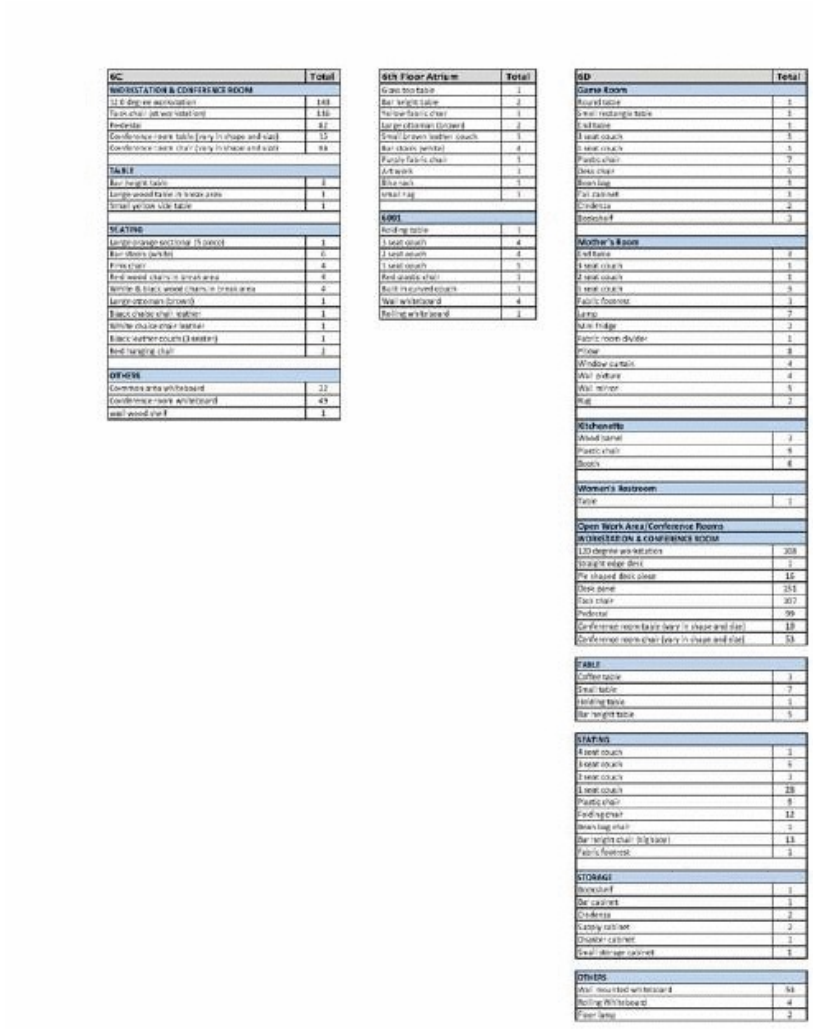
The net present value should then be amortized back over the lease term as a level monthly or annual net rent payment using the same annual discount rate of eight percent (8%) used in the present value analysis. This calculation will result in a hypothetical level or even payment over the option period, termed the "**Net Equivalent Lease Rate**" (or constant equivalent in general financial terms).

5. USE OF NET EQUIVALENT LEASE RATES FOR COMPARABLE TRANSACTIONS. The Net Equivalent Lease Rates for the Comparable Transactions shall then be used to reconcile, in a manner usual and customary for a real estate appraisal process, to a conclusion of Fair Market Rent which shall be stated as a Net Equivalent Lease Rate applicable during the Option Term.

EXHIBIT G

DESIGNATED FF&E

The parties will confirm the items on this Exhibit within 10 days from the date hereof and note any deviations in a separate writing.



6C	Total
WORKSTATION & CONFERENCE ROOM	
120 degree workstation	148
Task chair (all with rotation)	116
Pedestal	82
Conference / work table (vary in shape and size)	13
Conference / work chair (vary in shape and size)	98
TABLE	
Bar height table	1
Large wood table (4 break area)	1
Small yellow side table	1
SEATING	
Large lounge sectional (5 piece)	1
Bar stools (white)	6
Press chair	4
Red wood chairs in break area	4
White & black wood chairs in break area	4
Large ottoman (brown)	1
Black cheiko chair leather	1
White cheiko chair leather	1
Black leather couch (3 seater)	1
Red hanging chair	1
OTHERS	
Common area whiteboard	12
Conference room whiteboard	49
wall wood shelf	1

6th Floor Atrium	Total
Glass top table	1
Bar height table	2
Yellow fabric chair	1
Large ottoman (brown)	2
Small brown leather couch	1
Bar chairs (white)	4
Purple fabric chair	1
Art work	1
Blue rack	1
small rug	1
6001	
Reading table	1
1 seat couch	4
2 seat couch	4
3 seat couch	3
Red stools chair	1
Built in curved couch	1
Wall whiteboard	4
Rolling whiteboard	1

6D	Total
Game Room	
Round table	1
Small rectangle table	1
Cafe table	1
3 seat couch	1
1 seat couch	1
Fabric chair	7
Desk chair	1
Bean bag	1
Tall cabinet	1
Credenza	2
Bookshelf	1
Mother's Room	
Cafe table	1
4 seat couch	1
2 seat couch	1
1 seat couch	1
Fabric footrest	1
Lamp	2
Mini fridge	1
Fabric room divider	1
Pillow	8
Window curtain	4
Wall picture	4
Wall mirror	1
Rug	2
Kitchenette	
Mixed barrel	2
Plastic chair	9
Books	6
Women's Restroom	
Table	1
Open Work Area / Conference Rooms	
WORKSTATION & CONFERENCE ROOM	
120 degree workstation	208
Straight edge desk	1
Pie shaped desk piece	16
Desk pedal	251
Task chair	207
Pedestal	99
Conference room table (vary in shape and size)	19
Conference room chair (vary in shape and size)	53
TABLE	
Coffee table	1
Small table	7
Folding table	1
Bar height table	5
SEATING	
4 seat couch	1
3 seat couch	6
2 seat couch	1
1 seat couch	28
Plastic chair	9
Folding chair	12
Bean bag chair	1
Bar height chair (big base)	13
Fabric footrest	1
STORAGE	
Bookshelf	1
Bar cabinet	1
Credenza	2
Supply cabinet	2
Drawer cabinet	1
Small storage cabinet	1
OTHERS	
Wall mounted whiteboard	53
Rolling Whiteboard	4
Floor lamp	2

5C	Total
WORKSTATION & CONFERENCE ROOM	
120 degree workstation	92
Task chair (at workstation)	106
Pedestal	106
Straight edge desk	80
Conference room table (vary in shape and size)	10
Conference room chair (vary in shape and size)	93
TABLE	
Large wood lunch table	1
Small table	7
SEATING	
3 seat couch	17
2 seat couch	8
1 seat couch	37
Black lunch chair	7
Red lunch chair	1
Ottoman	2
STORAGE	
Credenza/bookcase	4
OTHERS	
Floor lamp	4
Common area wall mounted whiteboard	12
Conference room wall mounted whiteboard	21
Rolling whiteboard	5
5C - Boardroom	
Conference room table	5
Side table	2

5th Floor Atrium	Total
Bar height table (high boys)	2
Bar stools white	4
3 seat couch	1
2 seat couch	1
1 seat armchair - gold	2
Ottoman brown	1
Area rug	1
5001	
Side table	1
3 seat couch	3
2 seat couch	2
Single couch type chair	8
Soft or curved couch	1

5D	Total
WORKSTATION & CONFERENCE ROOM	
120 degree workstation	132
Task chair (at workstation)	178
Pedestal	177
Straight edge desk	12
Conference room table (vary in shape and size)	12
Conference room chair (vary in shape and size)	118
TABLE	
Round table	2
Coffee/side table in vary size	16
Large round wood dining table	1
White ikea table	2

SEATING	
3 seat couch	15
2 seat couch	12
1 seat couch	15
Wood chair	7
Ottoman	4
Beam bag	1

STORAGE	
2 drawer cabinet	4
Double door filing cabinet	7
Short bookcase	1
Full height bookcase	1
Credenza	3
KITCHEN EQUIPMENT	
Microwave	1
Coffee machine	1
Large fridge	4

OTHERS	
Wall mounted whiteboard	47
Rolling white board	6
Acoustic wall panel	3
Floor lamp	12
Coat rack	4
Cart	1
Area rug	4

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EXHIBIT H

[INTENTIONALLY OMITTED]

EXHIBIT I

[INTENTIONALLY OMITTED]

EXHIBIT J

EXISTING LEASE REMOVAL OBLIGATIONS

Remove all voice and data cabling in the Existing Premises up to any interconnection point in the Building riser per the terms of the Existing Lease

Remove Faraday cage installed in the Existing Premises

Remove all furniture, equipment and trade fixtures from the Existing Premises.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-223351, 333-214203 and 333-217077) of iRhythm Technologies, Inc. of our report dated March 4, 2019 relating to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

San Jose, California
March 4, 2019

Exhibit 31.1

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Kevin M. King, certify that:

1. I have reviewed this Annual Report on Form 10-K of iRhythm Technologies, Inc.;

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

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

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

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

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

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

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

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

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

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

Date: March 4, 2019

By: /s/ Kevin M. King

Kevin M. King
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Matthew C. Garrett, certify that:

1. I have reviewed this Annual Report on Form 10-K of iRhythm Technologies, Inc.;

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

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

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

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

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

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

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

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

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

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

Date: March 4, 2019

By: /s/ Matthew C. Garrett
Matthew C. Garrett
Chief Financial Officer

Exhibit 32.1

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

In connection with the Annual Report of iRhythm Technologies, Inc. (the "Company") on Form 10-K for the period ending December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

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

Date: March 4, 2019

By: /s/ Kevin M. King
Kevin M. King
President and Chief Executive Officer
(Principal Executive Officer)

By: /s/ Matthew C. Garrett
Matthew C. Garrett
Chief Financial Officer
(Principal Financial Officer and
Chief Accounting Officer)