

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

**POST-EFFECTIVE AMENDMENT NO. 1
TO
FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

NEUROPACE, INC.

(Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

3841
(Primary Standard Industrial
Classification Code Number)

22-3550230
(I.R.S. Employer
Identification Number)

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Mountain View, CA 94043
(650) 237-2700

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

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

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

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

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

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

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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 7(a)(2)(B) of the Securities Act.

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

EXPLANATORY NOTE

This Post-Effective Amendment No. 1 relates to the Registrant's Registration Statement on Form S-1, as amended (File No. 333-254663), initially filed by the Registrant on March 24, 2021 and declared effective by the Securities and Exchange Commission on April 20, 2021, or the Initial S-1. The Registrant is filing this Post-Effective Amendment No. 1 to reflect developments since the effective date of the Initial S-1 regarding an inquiry by the United States Department of Treasury.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.
Subject to completion, dated April 21, 2021

5,313,000 shares



Common stock

This is our initial public offering of our common stock. We are offering 5,313,000 shares of common stock. Prior to this offering, there has been no public market for our common stock. We expect that the initial public offering price will be between \$15.00 and \$17.00 per share. We have applied to list our common stock on the Nasdaq Global Market under the symbol “NPCE.”

We are an “emerging growth company” and a “smaller reporting company” as defined under the U.S. federal securities laws and, as such, have elected to comply with certain reduced public company reporting requirements.

Investing in our common stock involves a high degree of risk. See “Risk factors” beginning on page 15.

Neither the Securities and Exchange Commission nor any state securities regulators have approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per share	Total
Initial public offering price	\$	\$
Underwriting discounts and commissions ⁽¹⁾	\$	\$
Proceeds to NeuroPace, Inc., before expenses	\$	\$

⁽¹⁾ See “Underwriting” for additional information regarding compensation payable to the underwriters.

Delivery of the shares of common stock is expected to be made on or about _____, 2021.

We have granted the underwriters an option, for a period of 30 days from the date of this prospectus, to purchase up to an additional 796,950 shares of common stock at the initial public offering price less underwriting discounts and commissions.

J.P. Morgan

Morgan Stanley

Wells Fargo Securities

SVB Leerink

Prospectus dated _____, 2021.



Brain-Responsive Neuromodulation for Drug-Resistant Epilepsy

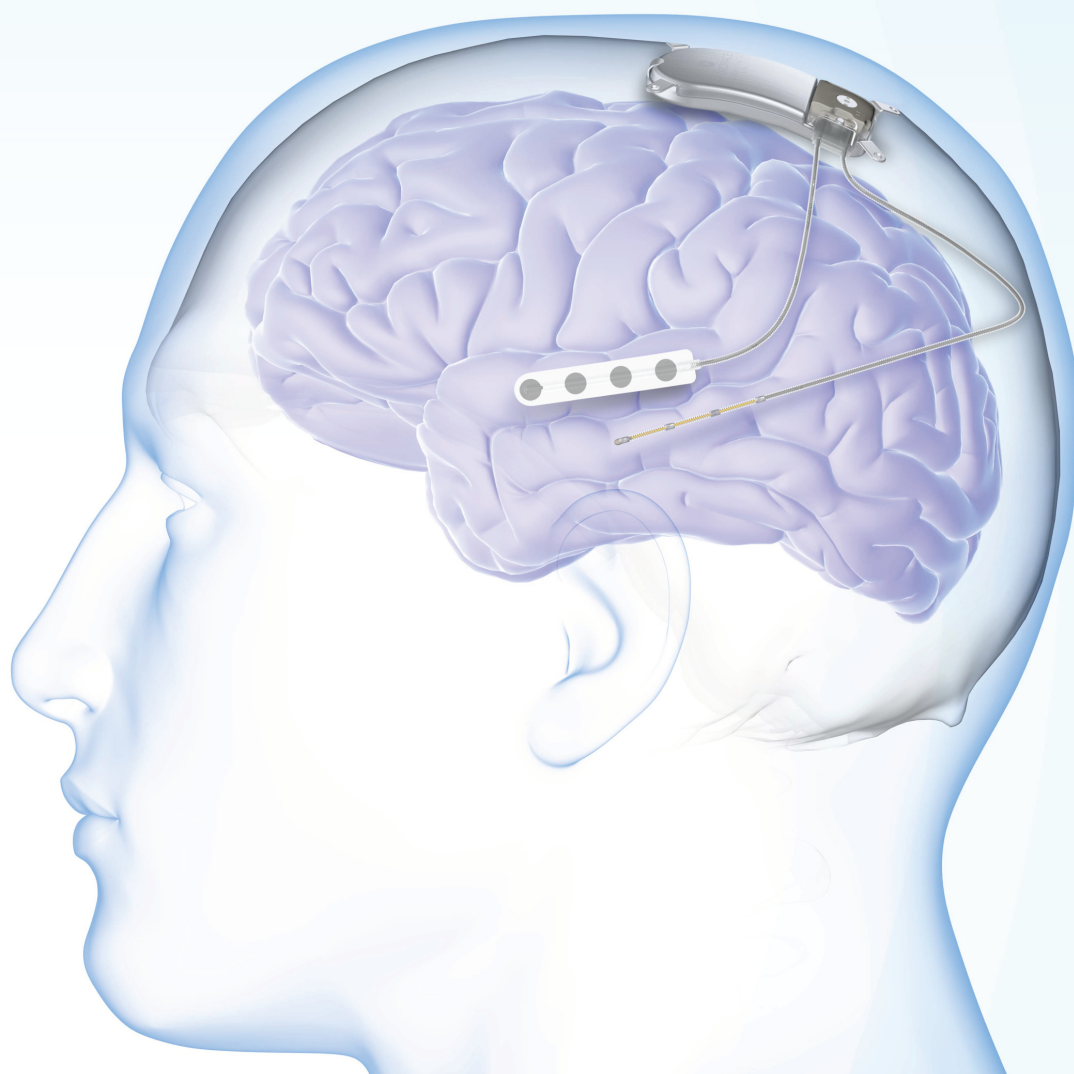


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Through and including _____, 2021 (the 25th day after the date of this prospectus), all dealers effecting transactions in shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer’s obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

We and the underwriters have not authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus or in any applicable free writing prospectus is accurate only as of the date of this prospectus or any such free writing prospectus, as applicable, regardless of its time of delivery or of any sale of our common stock. Our business, financial condition, results of operations and future growth prospects may have changed since that date.

For investors outside the United States: Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of our common stock and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus. This summary does not contain all of the information you should evaluate and consider before investing in our common stock. You should carefully read, consider, and evaluate this entire prospectus, including “Risk factors,” “Management’s discussion and analysis of financial condition and results of operations,” and our financial statements and the related notes included elsewhere in this prospectus, before making an investment decision. Unless the context otherwise requires, all references in this prospectus to “NeuroPace,” “we,” “us,” “our” and “our company” refer to NeuroPace, Inc.

Overview

We are a commercial-stage medical device company focused on transforming the lives of people suffering from epilepsy by reducing or eliminating the occurrence of debilitating seizures. Our novel and differentiated RNS System is the first and only commercially available, brain-responsive neuromodulation system that delivers personalized, real-time treatment at the seizure source. By continuously monitoring the brain’s electrical activity, recognizing patient-specific abnormal electrical patterns, and responding in real time with imperceptible electrical pulses to prevent seizures, our RNS System is programmed by clinicians to deliver the precise amount of therapy when and where it is needed and provides exceptional clinical outcomes with approximately three minutes of stimulation on average per day. Our RNS System is also the only commercially available device that records continuous brain activity data and allows clinicians to monitor patients not only in person, but also remotely, providing them the data they need to make more informed treatment decisions, thus optimizing patient care. We believe the therapeutic advantages of our RNS System, combined with the insights obtained from our extensive brain data set, offer a significant leap forward in epilepsy treatment. As of December 31, 2020, over 3,000 patients have received our RNS System. We believe our compelling body of long-term clinical data, demonstrating continuous improvement in outcomes over time, will support the continued adoption of our RNS System among the approximately 575,000 adults in the United States with drug-resistant focal epilepsy. Over time, we plan to seek indication expansion more broadly for use across the entire approximately 1.2 million drug-resistant epilepsy patients in the United States and may additionally seek to expand our operations to reach the approximately 16.5 million drug-resistant epilepsy patients globally.

Epilepsy is a devastating chronic disorder characterized by a tendency of the brain to produce sudden abnormal bursts of electrical energy that disrupt brain functions and cause seizures. The goal for treating epilepsy is to reduce the number and intensity of seizures that a patient experiences, without causing treatment-related side effects. While antiepileptic drugs are considered first-line treatment and are effective at controlling seizures in a large portion of the epilepsy population, approximately one-third of epilepsy patients are considered drug-resistant because they do not achieve complete seizure control or cannot tolerate the side effects of these drugs. These drug-resistant epilepsy patients struggle with a variety of life-impacting challenges including psychological dysfunction, social stigmatization, reduced quality of life, and increased risk of mortality, and are disproportionately responsible for the approximately \$28 billion spent annually on epilepsy care in the United States.

Epilepsy is further classified into two main categories— focal epilepsy and generalized epilepsy. Approximately 60% of epilepsy patients have focal epilepsy, which is characterized by electrical discharges that originate in a specific part of the brain. The remaining 40% of patients have generalized epilepsy, which is characterized by widespread electrical discharges that involve the entire brain at once. Our paradigm-shifting RNS System is currently indicated in the United States for use in adult epilepsy patients, or patients who are 18 years of age or older, with drug-resistant focal epilepsy, which we believe represents an approximately \$26 billion total addressable market. While we are presently focused on this significant market opportunity, in the future we may seek regulatory approval to treat drug-resistant epilepsy in patients under the age of 18 and in generalized epilepsy, as well as in markets outside the United States. We do not currently believe we will need to modify our RNS System for potential use in patients under the age of 18 or in generalized epilepsy; however, we will need to conduct clinical studies and obtain FDA approval prior to marketing the RNS Systems for these indications. We also believe that our RNS System may be effective in treating other brain disorders including depression, impulse control disorders, memory disorders, and post-traumatic stress disorder. We will need to conduct additional studies to determine if any modifications to the RNS System are necessary to address these other brain disorders and to obtain FDA approval for any new indications.

Our commercial efforts are focused on the comprehensive epilepsy centers, or Level 4 CECs, in the United States that facilitate appropriate care for drug-resistant epilepsy patients, including procedures for implantation of epilepsy neuromodulation devices such as our RNS System. While most drug-resistant epilepsy patients begin their care at physician offices or community hospitals, we estimate that approximately 24,000 adult drug-resistant focal epilepsy patients are treated in Level 4 CECs in the United States each year. We estimate that this patient pool represents an annual core market opportunity of approximately \$1.1 billion for initial RNS System implants, and we expect that it will continue to grow as the number of Level 4 CECs and epilepsy specialists increases, and as more patients are referred to these CECs. In addition, our RNS System currently has an average battery life of approximately eight years, which, through the sale of replacement neuromodulation devices, provides a recurring revenue stream that is additive to our current \$1.1 billion annual market opportunity for initial implants.

Resective or ablative surgery that removes or destroys the brain tissue at the source of the seizure onset has historically been considered the best treatment option for drug-resistant focal epilepsy. However, resective or ablative surgery carries risk, including neurological risk, and only approximately half of resective or ablative surgery patients are seizure free two years after surgery. We estimate that only approximately 20% of drug-resistant focal epilepsy patients have a focus that is both safe to remove and likely to result in seizure control if removed, and are also willing to undergo the procedure.

There are currently two other neuromodulation devices, Vagus Nerve Stimulation, or VNS, and Deep Brain Stimulation, or DBS, that are also approved to address the approximately 80% of drug-resistant focal epilepsy patients who are not ideal candidates for resective or ablative surgery. However, we believe the technology attributes of these devices limit their utility in practice. Both VNS and DBS devices stimulate an anatomical target that is not specific to where seizures start and use the same treatment paradigm for all patients, regularly stimulating the vagus nerve in the case of VNS or one specific location deep in the brain in the case of DBS, using a non-varying schedule in an attempt to prevent seizures. These devices stimulate for multiple hours per day, increasing the occurrence of stimulation-related side effects such as memory impairment, depression, sleep disruption, and vocal disturbances. Additionally, neither of these devices record the brain electrical data known as intracranial electroencephalograms, or iEEGs, that we believe are important to physicians in helping guide the therapy decisions that improve patient results over time. We believe there is a significant unmet need for a personalized, targeted therapy that collects brain data and improves outcomes over time without causing stimulation-related side effects or presenting the neurocognitive risks that are associated with resective or ablative surgery.

We developed our RNS System to address the individualized nature of drug-resistant epilepsy and deliver a safe and effective therapy for focal onset seizures anywhere in the brain. Unlike other neuromodulation devices, our RNS System continuously monitors the brain's electrical activity, recognizes patient-specific abnormal patterns, and delivers treatment at the seizure source when needed, providing significant, sustained, and improving reductions in seizure frequency, including, in some cases, eliminating seizures, without stimulation-related side effects at therapeutic settings. As such, we believe our RNS System is superior in tolerability and efficacy to other neuromodulation approaches, gathering insights from individual patients' brain activity which help in making better treatment decisions and optimizing patient care. In addition, the non-destructive, reversible nature of the implant procedure makes it an attractive option for drug-resistant focal epilepsy patients, the majority of whom are not candidates for, or are unwilling to undergo, resective or ablative surgery.

The key efficacy and safety benefits of our RNS System are demonstrated by four multi-center FDA approved prospective studies that collectively include approximately 600 patients with up to nine years of follow-up, as well as multiple retrospective studies reporting real-world outcomes. Evidence generated from patients enrolled in our initial clinical studies demonstrated a 44% median reduction in seizure frequency at one year that improved to a 75% median reduction at nine years, with enduring improvements in quality of life and cognition. Importantly, the more recently published real-world results from a post-approval retrospective study showed a median seizure frequency reduction of 67% at one year ($p < 0.05$), which is consistent with the interim one year results of our ongoing prospective Post-Approval Study, increasing to 82% at three or more years, demonstrating the utility of our unique brain data set in driving improvements in therapy effectiveness across patient cohorts over time. Over the 2,500 patient implant years reported in our prospective studies, our RNS System has been shown to be well tolerated without any adverse stimulation-related side effects at therapeutic settings. We believe our extensive and growing body of clinical data is being used to improve patient outcomes, which we believe will support increased adoption.

We received Pre-Market Approval, or PMA, from the FDA for our RNS System in late 2013 and began the commercial rollout of our RNS System in early 2014. We market our RNS System in the United States through a direct sales organization primarily to the epileptologists and neurosurgeons who respectively prescribe and implant neuromodulation devices in the approximately 200 Level 4 CECs in the United States. As of December 31, 2020, our commercial organization of 21 Therapy Consultants and 21 Field Clinical Engineers have established a significant account base at these Level 4 CECs. Given the concentrated and underpenetrated nature of our target market, we believe there is a significant opportunity to efficiently grow our account base, drive higher utilization within these centers, and increase the number of drug-resistant patients referred to Level 4 CECs without significant salesforce expansion.

The implant procedure for our RNS System and the ongoing patient treatment provided by clinicians, including monitoring and programming, are reimbursed under well-established physician and hospital codes. In addition, we believe that our RNS System is currently the only neuromodulation system for epilepsy with reimbursement available for periodic in-person or remote review of brain activity data. Given the relatively young average age of our patient population, our payor mix has historically been more heavily weighted towards commercial payors. As of December 31, 2020, commercial payors have written positive coverage policies that address approximately 200 million covered lives in the United States. Medicare and Medicaid also routinely provide coverage for implantation of our RNS System and follow-up care. Based on our experience, less than 1% of potential RNS System patients have been unable to undergo an implant procedure with our RNS System due to lack of payor coverage. We believe the established, differentiated, and favorable reimbursement paradigm for our RNS System will continue to support its broad commercial adoption.

Our near-term research, development, and clinical efforts are focused on continuing to improve therapy effectiveness, enhance the patient and provider experience, and expand the population of patients that can be treated with our RNS System. Our near-term product development pipeline includes enhanced offerings that leverage our extensive brain activity database and our advanced data analysis capabilities. In the near-term, we also intend to pursue studies to support label expansion for our RNS System in additional epilepsy populations.

We have experienced considerable growth since we began commercializing our RNS System. Our revenue increased from \$28.5 million for the year ended December 31, 2018 to \$37.0 million for the year ended December 31, 2019, representing approximately 30% growth. The COVID-19 pandemic and the measures imposed to contain the pandemic impacted our business during 2020, with the most pronounced negative impact during the second quarter of the year. Revenue increased to \$41.1 million for the year ended December 31, 2020, representing year over year growth of 11.3%. Our net losses were \$30.0 million and \$24.3 million for the years ended December 31, 2019 and December 31, 2020, respectively.

Competitive Strengths

We are focused on transforming the lives of people suffering from epilepsy by developing, manufacturing, continuously improving, and commercializing our innovative and clinically-validated RNS System that we believe offers significant advances in the treatment of drug-resistant epilepsy. We believe our continued growth will be driven by the following competitive strengths:

- Novel and differentiated closed-loop, brain-responsive technology that provides targeted, personalized care;
- Unique data recording capability that supports an extensive database of detailed brain activity information;
- Compelling body of long-term clinical data that continues to demonstrate improved outcomes over time;
- Efficient commercial model supported by an established, specialized field team;
- Established, differentiated, and favorable reimbursement supporting commercial growth;
- Strategic approach to our intellectual property portfolio; and
- Experienced senior management team.

Our Market and Industry

Overview of Drug-Resistant Epilepsy

Epilepsy is a devastating chronic disorder characterized by a tendency of the brain to produce sudden abnormal bursts of electrical energy that disrupt brain functions and cause seizures. According to the World Health Organization, approximately 50 million people worldwide had epilepsy in 2019 and according to the Centers for Disease Control and Prevention, 3.4 million people in the United States were living with epilepsy in 2015, making it the fourth most common neurological disorder in the United States.

First line treatment for epilepsy is antiepileptic drugs, or AEDs. While AEDs can help control seizures for many individuals, approximately one third of patients do not achieve complete seizure control, which is defined as seizure freedom without life-impacting side effects associated with treatment. This population of epilepsy patients is referred to as drug-resistant and we estimate that there are approximately 1.2 million drug-resistant epilepsy patients in the United States.

Epilepsy can be classified into two categories— focal epilepsy and generalized epilepsy. Approximately 60% of epilepsy patients have focal epilepsy, which is characterized by electrical discharges that originate in a specific part of the brain. Focal epilepsy patients typically have one or two seizure foci, or sites in the brain from which the electrical discharge originates. Generalized epilepsy, which describes approximately 40% of epilepsy patients, is characterized by widespread electrical discharges that involve the entire brain at once.

Onset of epilepsy can occur at any age. Of the approximately 1.2 million patients in the United States with drug-resistant epilepsy, we estimate that approximately 80% are adults, or 18 years of age or older, of whom approximately 575,000 have focal epilepsy. The remaining approximately 20% of patients are pediatric, or under the age of 18, and we estimate that approximately 145,000 of these pediatric patients have focal epilepsy.

Today, most epilepsy patients in the United States begin their care at physician offices or community hospitals, in the care of primary care physicians or general neurologists. Patients who have drug-resistant epilepsy may then be referred for advanced treatment at the approximately 200 Level 4 CECs in the United States. In 2019, we estimate that approximately 50,000 drug-resistant epilepsy patients were admitted to, and treated at, Level 4 CECs, of which approximately 48% were adults with focal epilepsy.

Our Market Opportunity

Our paradigm-shifting RNS System is currently indicated for use in adult epilepsy patients with drug-resistant focal epilepsy and we believe that it is an attractive therapeutic option for these patients. We estimate that there are approximately 575,000 adult drug-resistant focal epilepsy patients in the United States, which reflects a total addressable market opportunity of approximately \$26 billion for our RNS System.

Our commercial efforts are focused on the Level 4 CECs in the United States that provide comprehensive epilepsy care. As such, we view our core annual market as the 50,000 drug-resistant epilepsy patients who are treated at Level 4 CECs each year, of which 48% are adult drug-resistant focal epilepsy patients. We estimate that this addressable patient pool of 24,000 patients represents an annual market opportunity of approximately \$1.1 billion for initial RNS System implants, and we expect that it will continue to grow as the number of Level 4 CECs increase, the number of epilepsy specialists grows, and as more patients are referred to Level 4 CECs. Our RNS System currently has a battery life of approximately eight years, which, through the sale of replacement neuromodulation devices, provides a recurring revenue stream that is additive to our current \$1.1 billion annual market opportunity.

Supported by evidence published in peer reviewed journals, we believe that our current RNS System may also be able to effectively treat patients under age 18 with drug-resistant focal epilepsy as well as drug-resistant generalized epilepsy patients and we intend to pursue clinical studies to support label expansion for these indications. We have FDA approval for an IDE study to treat drug-resistant focal epilepsy in adolescent patients ages 12 through 17 and expect to begin enrollment in 2021. In February 2021, our RNS System received Breakthrough Device Designation from the FDA for the treatment of idiopathic generalized epilepsy, or IGE. IGE is

a subset of generalized epilepsy, is understood to have a strong underlying genetic basis and constitutes as many as one third of all epilepsies. We believe that this breakthrough designation will help patients suffering from IGE have more timely access to our RNS System. In the second half of 2021, we also plan to seek IDE approvals to initiate clinical studies in generalized epilepsy.

Current Treatment Alternatives and Their Limitations

There are two primary treatment alternatives for drug-resistant focal epilepsy patients: (i) an ablative or resective surgery to remove or destroy the brain tissue associated with the seizure onset, or (ii) implantation of a neuromodulation device to stimulate seizure-causing brain circuits and prevent or abort seizures.

Resective and ablative surgery

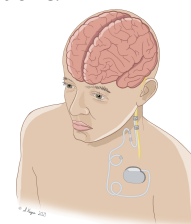
Surgery has been used to treat epilepsy for more than 100 years. Resective or ablative surgery is used in current clinical practice as a treatment alternative for the approximately 20% of drug-resistant epilepsy patients who are willing to have the surgery and have a discrete, single seizure focus that is determined to be safe to resect or ablate in a way that is likely to result in complete seizure control. Resective surgeries are invasive procedures that involve permanently removing the part of the brain that is primarily responsible for the seizure onset. Ablative surgeries, which use thermal energy to permanently destroy brain tissue, have emerged as a less invasive alternative to surgical resection.

While these surgical options have the potential to result in complete seizure control, studies have demonstrated that only approximately half of resective or ablative surgery patients are seizure-free two years after surgery and many experience impairment in some aspect of neurological function. The most common and successful type of resective surgery, temporal lobectomy, leaves 30 to 40% of patients with disabling seizures one year after surgery and many patients are left with neurological side effects, including impaired memory, reduced naming ability, and loss of some part of their visual field.

Implantable neuromodulation devices

In addition to our RNS System, there are two neuromodulation devices that are approved by the FDA to treat focal epilepsy: Vagus Nerve Stimulation, or the VNS System, marketed by LivaNova; and Deep Brain Stimulation, or the DBS System, marketed by Medtronic.

The VNS System provides scheduled extracranial stimulation delivered from a pectorally implanted pulse generator with the lead tunneled under the skin to the left vagus nerve in the neck next to the carotid artery. Therapy is typically delivered in a repeating pattern of 30 seconds of stimulation followed by five minutes without stimulation.



The DBS System relies on bilaterally implanted intracranial electrodes that are placed in each anterior thalamic nucleus, each located deep in the brain. The electrodes are attached to a pectorally implanted pulse generator using connecting wires that are tunneled under the scalp and skin of the neck and chest. DBS delivers non-responsive, sometimes referred to as open-loop, scheduled stimulation and has limited sensing and recording capability. Therapy is typically delivered in a repeating pattern of one minute of stimulation followed by five minutes without stimulation.



Published data from separate prospective FDA approved studies run by LivaNova and Medtronic in adults with focal epilepsy demonstrated that the VNS System and DBS System achieved median reductions in seizure frequency at one year of 35% and 44%, respectively. Both VNS and DBS devices stimulate a fixed anatomical target that is not

specific to where seizures start in the brain. They also use the same treatment paradigm for all patients and are intermittently stimulating the brain using a non-varying schedule in an attempt to prevent seizures rather than responding in real-time to the patient-specific electrical activity that precedes a seizure. As a result, both devices stimulate the brain for multiple hours per day, increasing the likelihood of stimulation side effects including voice alterations, hoarseness, throat pain, cough, difficulty swallowing, depression, memory impairment, and sleep disruption.

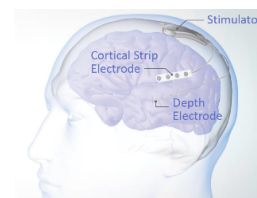
Additionally, neither of these devices record the brain electrical data known as intracranial electroencephalograms, or iEEGs, that we believe are important to physicians in helping guide the therapy decisions that improve patient results over time.

We believe our RNS System addresses the significant unmet need for an epilepsy treatment option that can improve outcomes without causing stimulation-related side effects for the large portion of drug-resistant focal epilepsy patients who are not ideal candidates for surgery or who do not want to undergo a destructive surgical procedure.

Our Solution

We developed our RNS System, which is a compilation of several of our products, to address the individualized nature of drug-resistant epilepsy with a differentiated technology that provides personalized, data-driven treatment. Our RNS System is the first and only closed-loop, brain-responsive neuromodulation device approved by the FDA for treatment of drug-resistant focal epilepsy. By continuously monitoring the brain's electrical activity, recognizing patient-specific abnormal electrical patterns, and responding in real-time with imperceptible electrical pulses to prevent seizures, we believe our RNS System addresses the primary unmet needs in epilepsy care today.

The implantable portion of our RNS System consists of a neurostimulator, which is placed within the patient's skull and our RNS System leads with electrodes that can be positioned in one or two seizure foci. The electrodes are used to sense electrical activity from the brain, provide targeted stimulation, and capture the iEEG signals that are recorded by the neurostimulator. Because our RNS System provides targeted, responsive stimulation only when abnormal electrical activity is detected, patients receive approximately three minutes of stimulation on average per day and do not experience stimulation-related side effects at therapeutic settings.



The external components of our RNS System include our Patient Remote Monitor, our Physician Tablet, and our Patient Data Management System, or PDMS.

Our Patient Remote Monitor consists of a handheld wand and a specially programmed laptop computer that collects and transmits data from the neurostimulator to the Patient Data Management System, a secure online database.

Our Physician Tablet allows the patient's managing physician to retrieve stored iEEG data, programmed parameters, detections, and stimulations from the neurostimulator for review and optimization of the patient's treatment protocol. Clinicians also utilize the Physician Tablet to program new detection and stimulation settings, as needed.

Our PDMS is a secure online database that collects data that have been recorded in our RNS System. These data, which include all programmed parameters, detections, stimulations, and stored iEEG activity for RNS System patients, can be accessed through our secure Physician Tablet or from any internet browser. Clinicians can use their patients' data to facilitate treatment decisions. We believe that we are able to continue to learn and innovate by leveraging our comprehensive data set, which includes approximately 6.6 million iEEG records, and our data analytics capabilities. This allows us to improve our products, creating actionable insights for clinicians who can help improve clinical outcomes for patients.

Key Clinical Advantages of our RNS System

We believe the key advantages of our RNS System relative to both alternative neuromodulation devices and resective or ablative surgery include:

Significant and improving seizure reduction in all areas of the brain. Our initial clinical studies demonstrated a 44% median reduction in seizure frequency at one year that improved to a 75% median reduction at nine years, with enduring improvements in quality of life and cognition. Importantly, the more recently published real-world results from a post-approval retrospective study showed a median seizure frequency reduction of 67% at one year ($p < 0.05$), which is consistent with the interim one-year results of our ongoing prospective Post-Approval Study, increasing to 82% at three or more years, demonstrating the utility of our unique brain data set in driving improvements in therapy effectiveness across patient cohorts over time.

Lack of stimulation-related side effects. Our RNS System stimulates the precise seizure targets and only when needed, resulting in a highly effective therapy with approximately three minutes of stimulation on average per day. Our clinical studies have collectively demonstrated that our RNS System therapy is well-tolerated with no adverse stimulation-related side effects at therapeutic settings.

Quality of life, cognition, and mood improvement. In our Pivotal Study, patients who began treatment less than ten years after epilepsy onset achieved statistically significant improvements in overall quality of life scores as well as in every subdomain of quality of life, including cognitive function, mental health, and physical health, that were tracked and maintained over the follow up periods ($p < 0.05$).

Low risk, reversible procedure. Our RNS System has a favorable safety profile relative to resective or ablative surgical procedures for epilepsy and a comparable risk profile to the implantation of other neuromodulation devices. The non-destructive RNS System implant procedure has not demonstrated a negative impact on neurological or cognitive function.

Reduction in sudden unexpected death in epilepsy, or SUDEP. Data from 707 patients across our clinical studies and post-market experience indicated that our RNS System was associated with a lower rate of dying from SUDEP relative to other treatment-resistant epilepsy groups.

Benefits to Other Stakeholders

In addition to offering important clinical benefits to patients, we believe our RNS System offers important distinctions for providers and payors.

Providers: We believe that our RNS System's differentiated ability to record iEEG data offers clinicians the opportunity to better manage and optimize treatment for their patients. Importantly, because our RNS System is the only neuromodulation device that records iEEG data, we believe it is also the only neuromodulation device with established reimbursement for data review during and between in-person clinician visits, which we believe is an important element of optimizing patient care.

Payors: We believe our RNS System has the potential to reduce the cost burden associated with drug-resistant epilepsy. We also believe that the unique ability for physicians to review their patients' RNS System data online can facilitate telehealth delivery, potentially reducing the overall cost of care, while improving the patient experience.

Our Growth Strategies

We expect that the near-term growth of our business will be driven primarily by new patients being treated with our RNS System. We believe the following strategies will contribute to growth in initial patient implants and advance our mission to dramatically improve clinical outcomes and quality of life for patients suffering from epilepsy and other disabling brain disorders:

- Drive adoption of our RNS System across all Level 4 CECs;

- Increase utilization of our RNS System within CECs by growing the number of epileptologists recommending our system, increasing utilization by prescribers, and driving increased patient referrals to Level 4 CECs;
- Broaden indications for our RNS System to include patients under age 18 and patients with generalized epilepsy;
- Expand into international markets; and
- Pursue additional indications, including outside of epilepsy.

Recent Operating Results (Preliminary and Unaudited)

The selected financial data presented below reflect our preliminary estimated unaudited financial results for the three months ended March 31, 2021, and actual unaudited financial results for the three months ended March 31, 2020. Our unaudited interim financial statements for the three months ended March 31, 2021 are not yet available. The information presented below reflects our preliminary estimates based on currently available information and is subject to change. We have provided ranges, rather than specific amounts, for the preliminary estimates of the unaudited financial data described below primarily because our financial closing procedures for the three months ended March 31, 2021 are not yet complete and, as a result, our final results upon completion of our closing procedures may vary from the preliminary estimates. See the sections titled “Risk Factors,” “Special Note Regarding Forward-Looking Statements,” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” for additional information regarding factors that could result in differences between the preliminary estimated ranges of our unaudited financial data presented below and the actual financial data we will report for the three months ended March 31, 2021.

The preliminary financial data for the three months ended March 31, 2021 presented below have been prepared by, and are the responsibility of, our management. PricewaterhouseCoopers LLP, our independent registered public accounting firm, has not audited, reviewed, compiled, or applied agreed-upon procedures with respect to the preliminary financial data. Accordingly, PricewaterhouseCoopers LLP does not express an opinion or any other form of assurance with respect thereto.

	Three Months Ended March 31,			
	2020 Actual	2021 Estimated		
		Low	High	
	(in thousands)			
Revenue	\$ 9,975	\$ 11,100	\$ 11,300	
Loss from operations	(5,458)	(3,500)	(4,000)	

Risks Associated With Our Business

Our business is subject to numerous risks and uncertainties, including those described in “Risk factors” and elsewhere in this prospectus. You should carefully read, consider, and evaluate these risks before making an investment. These risks include, among others, the following:

- Our sales, business, financial condition and results of operations have been and continue to be impacted by the COVID-19 pandemic;
- We currently rely on our RNS System, which can only be marketed in the United States for use in adults with drug-resistant focal epilepsy, and is recommended as well as implanted primarily at Level 4 CECs. If we are not successful in enhancing awareness of our RNS System, driving adoption across our current target population, increasing referrals to Level 4 CECs, and expanding the population of eligible patients, our sales, business, financial condition and results of operations will be negatively affected;
- Our commercial success will continue to depend on attaining significant market acceptance of our RNS System among patients, clinicians and hospital facilities, primarily Level 4 CECs and increasing the

number of patients treated at Level 4 CECs. If we are unable to successfully achieve substantial market acceptance and adoption of our RNS System, our sales, business, financial condition and results of operations would be harmed;

- We depend on a limited number of single-source suppliers and vendors in connection with the manufacture of our products, which makes us vulnerable to supply shortages and price fluctuations that could harm our business, financial condition, and results of operations;
- We may be unable to compete successfully with other treatment options for drug-resistant focal epilepsy, which could harm our sales, business, financial condition and results of operations;
- If adequate reimbursement becomes unavailable for the procedures to implant our RNS System and for clinicians to provide ongoing care for patients treated with our RNS System, it could diminish our sales or affect our ability to sell our RNS System profitably;
- Our operations are subject to pervasive and continuing FDA regulatory requirements, and failure to comply with these requirements could harm our business, financial condition and results of operations;
- If we are unable to obtain, maintain, protect, enforce and defend patent or other intellectual property protection for our products, or if the scope of the patent and other intellectual property protection obtained is not sufficiently broad, or as a result of our existing or any future out-licenses of our intellectual property, our competitors could develop and commercialize products competitive with ours, and our ability to continue to commercialize our RNS System, or our other products, may be harmed;
- Our collection, use, storage, disclosure, transfer and other processing of sensitive and personal information could give rise to significant costs, liabilities and other risks, including as a result of investigations, inquiries, litigation, fines, legislative and regulatory action and negative press about our privacy and data protection practices, which may harm our business, financial conditions, results of operations and prospects;
- We have a history of net losses, and we expect to continue to incur losses for the foreseeable future. If we do achieve profitability, we may not be able to sustain it; and
- We have identified a material weakness in our internal control over financial reporting. If we are unable to remediate this material weakness, or if we identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, we may not be able to accurately or timely report our financial condition or results of operations.
- Litigation and other legal proceedings may harm our business. For example, on April 20, 2021, after the registration statement to which this post-effective amendment relates was declared effective, we received correspondence from the United States Department of Treasury regarding an inquiry into unspecified matters that may fall under the jurisdiction of the Committee on Foreign Investment in the United States, or CFIUS. We do not at this time have additional information as to the substance of the inquiry and we intend to cooperate fully with CFIUS on the matter.

If we are unable to adequately address these and other risks we face, our business may be harmed.

Implications of being an emerging growth company and a smaller reporting company

As a company with less than \$1.07 billion in revenue during our last fiscal year, we qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. For as long as we are an emerging growth company, we may take advantage of certain reduced reporting requirements that are otherwise applicable to other public companies that are not emerging growth companies. These provisions include, but are not limited to:

- not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act;

- reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and the exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved; and
- being permitted to present only two years of audited financial statements and only two years of related management’s discussion and analysis of financial condition and results of operations disclosure in this prospectus.

We may choose to take advantage of some or all of these reduced burdens. We have taken advantage of many of these reduced burdens in this prospectus, and intend to do so in future filings. As a result, the information that we provide stockholders may be different than you might get from other public companies in which you hold equity. In addition, the JOBS Act provides that an emerging growth company can delay adopting new or revised accounting standards until those standards apply to private companies. We have elected to avail ourselves of this exemption.

We will remain an emerging growth company until the earliest to occur of: the last day of the fiscal year in which we have more than \$1.07 billion in annual revenue; the last day of the fiscal year in which we qualify as a “large accelerated filer;” the date on which we have, during the previous three-year period, issued more than \$1.0 billion in non-convertible debt securities; and the last day of the fiscal year in which the fifth anniversary of this offering occurs.

We are also a “smaller reporting company,” meaning that the market value of our stock held by non-affiliates plus the proposed aggregate amount of gross proceeds to us as a result of this offering is less than \$700 million and our annual revenue was less than \$100 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after this offering if either (i) the market value of our stock held by non-affiliates is less than \$250 million as of the last business day of the second fiscal quarter or (ii) our annual revenue is less than \$100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than \$700 million as of the last business day of the second fiscal quarter. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Corporate information

We were incorporated under the laws of the state of Delaware in November 1997 under the name NeuroPace, Inc. Our principal executive offices are located at 455 N. Bernardo Avenue, Mountain View, California 94043. Our telephone number is (650) 237-2700. Our website is www.neuropace.com. Information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus.

“NeuroPace,” “RNS,” the NeuroPace logo and our other registered or common law trade names, trademarks or service marks appearing in this prospectus are our property. Trade names, trademarks and service marks of other companies appearing in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and tradenames referred to in this prospectus appear without the ® and ™ symbols, but those references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights, or the right of the applicable licensor to these trademarks and tradenames.

THE OFFERING

Common stock offered by us	5,313,000 shares
Option to purchase additional shares of common stock from us	796,950 shares
Common stock to be outstanding after this offering	22,241,274 shares (or 23,038,224 shares if the underwriters exercise their option to purchase additional shares in full)
Use of proceeds	<p>We estimate that the net proceeds from the sale of 5,313,000 shares of common stock in this offering will be approximately \$75.6 million (or approximately \$87.4 million if the underwriters exercise their option to purchase additional shares in full), based upon an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.</p> <p>The principal purpose of this offering is to provide us with additional capital. We intend to use the net proceeds from this offering to expand our sales and marketing efforts, increase our research and development activities, conduct or sponsor clinical studies, expand internationally, and provide for working capital and other general corporate purposes. We will also use a portion of the net proceeds we receive from this offering to repay approximately \$4.0 million of principal indebtedness, plus any accrued interest, under our Paycheck Protection Program loan. We may use a portion of the net proceeds to acquire complementary products, technologies, intellectual property or businesses; however, we currently do not have any agreements or commitments to complete any such transactions and are not involved in negotiations regarding such transactions. See "Use of Proceeds" for additional information.</p>
Risk factors	See "Risk factors" and the other information included in this prospectus for a discussion of risks you should carefully read, consider, and evaluate these risks before investing in our common stock.
Proposed Nasdaq trading symbol	"NPCE"

The number of shares of common stock that will be outstanding after this offering is based on 16,928,274 shares of common stock outstanding as of December 31, 2020 (including our convertible preferred stock on an as-converted basis), and excludes:

- Six shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2020 with a weighted-average exercise price of \$57.20 per share, under our 2009 Stock Plan, or our 2009 Plan, which previously terminated and under which no new awards may be granted;
- 2,835,265 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2020 with a weighted-average exercise price of \$0.026 per share, under our 2020 Stock Plan, or our 2020 Plan, which plan will expire upon the execution of the underwriting agreement in this offering;
- 241,428 shares of common stock issuable upon the exercise of outstanding stock options granted after December 31, 2020 under our 2020 Stock Plan, with a weighted-average exercise price of \$4.3283 per share;
- 818,889 shares of common stock available for issuance pursuant to future grants under our 2020 Plan, which shares will cease to be available for issuance at the time our 2021 Equity Incentive Plan, or the 2021 Plan, becomes effective;
- 2,900,000 shares of common stock reserved for future issuance under our 2021 Plan, which will become effective upon the execution of the underwriting agreement for this offering, plus the number of shares subject to stock options or other stock awards that would have otherwise returned to our 2020 Stock Plan

(such as upon the expiration or termination of a stock award prior to vesting), as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan;

- 143,076 shares of our common stock, based upon an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, issuable upon the exercise of options that we will grant under our 2021 Plan, effective immediately following the execution of the underwriting agreement related to this offering, to each of our non-employee directors at an exercise price equal to the initial public offering price of this offering;
- 580,000 shares of common stock reserved for issuance pursuant to future grants under our 2021 Employee Stock Purchase Plan, or the ESPP, which will become effective upon the execution of the underwriting agreement for this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan;
- the net exercise of warrants to purchase 346,823 shares of Series B' convertible preferred stock, with an exercise price of \$6.51339 per share, outstanding as of December 31, 2020, prior to the closing of this offering that would otherwise expire upon the closing of this offering, which will result in the issuance of an aggregate of 205,635 shares of Series B' convertible preferred stock that will convert into an equal number of shares of common stock upon the closing of this offering (based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus); and
- the net exercise of warrants to purchase 219 shares of common stock, with an exercise price of \$2.60 per share, outstanding as of December 31, 2020, prior to the closing of this offering that would otherwise expire upon the closing of this offering, which will result in the issuance of an aggregate of 183 shares of common stock upon the closing of this offering (based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus).

Unless we specifically state otherwise, all information in this prospectus reflects and assumes:

- a 1-for-100 reverse stock split of our common stock and convertible preferred stock effected on August 18, 2020;
- a 1-for-2.6 reverse stock split of our common stock and convertible preferred stock effected on April 9, 2021;
- the conversion of 16,614,178 shares of convertible preferred stock outstanding as of December 31, 2020 into an equal number of shares of common stock upon the closing of this offering;
- no exercise of outstanding options or warrants, other than as provided for above;
- no exercise of the underwriters' option to purchase additional shares of common stock; and
- the filing and effectiveness of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws upon the closing of this offering.

SUMMARY FINANCIAL DATA

The following tables summarize our financial and other data. The summary statements of operations and comprehensive loss data for the years ended December 31, 2019 and 2020 and the balance sheet data as of December 31, 2020 have been derived from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected for any other period in the future. You should carefully read, consider, and evaluate the financial and other data set forth below in conjunction with our financial statements and the accompanying notes, the information in “Selected financial data” and the information in “Management’s discussion and analysis of financial condition and results of operations” contained elsewhere in this prospectus.

(in thousands, except share and per share amounts)

	Year Ended December 31,	
	2019	2020
Statements of operations data:		
Revenue	\$ 36,972	\$ 41,138
Cost of goods sold	10,508	10,866
Gross profit	26,464	30,272
Operating expenses		
Research and development	18,294	15,695
Selling, general and administrative	30,201	27,628
Total operating expenses	48,495	43,323
Loss from operations	(22,031)	(13,051)
Interest income	261	41
Interest expense	(9,485)	(11,486)
Other income (expense), net	1,282	218
Net loss	\$ (29,973)	\$ (24,278)
Net loss per share attributable to common stockholders, basic and diluted ⁽¹⁾	\$ (148.44)	\$ (117.85)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	201,925	204,068
Pro forma net loss per share, basic and diluted (unaudited) ⁽¹⁾		\$ (1.74)
Weighted-average shares outstanding used in computing pro forma net loss per share, basic and diluted (unaudited)		11,101,089

(1) See Note 12, “Net Loss per Share Attributable to Common Stockholders” to our financial statements included elsewhere in this prospectus for further information on the calculation of historical net loss per share attributable to common stockholders. The unaudited pro forma basic and diluted net loss per share for the year ended December 31, 2020, has been prepared to give effect to (1) an adjustment to the denominator in the pro forma basic and diluted net loss per share calculation to affect (a) the conversion of 8,234,768 shares of redeemable convertible preferred stock outstanding into an equal number of shares of common stock upon the closing of this offering as of the beginning of the period or the date of issuance, if later, (b) the assumed conversion of the Company’s outstanding 2019 and 2020 Convertible Notes, which converted in August 2020, into 8,379,410 shares of Series B’ redeemable convertible preferred stock, and the subsequent conversion to common stock on a one-to-one basis upon the closing of this offering as of the beginning of the period or the date of issuance, if later, (c) the issuance of 205,635 shares of Series B’ redeemable convertible preferred stock upon the net exercise of outstanding warrants to purchase 346,823 shares of Series B’ redeemable convertible preferred stock, with an exercise price of \$16.00 per share, immediately prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price and the conversion of such shares of Series B’ redeemable convertible preferred stock into an equal number of shares of common stock upon the closing of this offering, reflected as of the beginning of the period or the date of issuance, if later, (d) the issuance of 183 shares of common stock upon the net exercise of outstanding warrants to purchase 219 shares of common stock, with an exercise price of \$16.00 per share, immediately prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price reflected as of the beginning of the period or the date of issuance, if later, and (2) an adjustment to the numerator in the pro forma basic and diluted net loss per share calculation to (a) exclude the change in fair value resulting from the remeasurement of the Series B’ redeemable convertible preferred stock warrant liability, (b) exclude the change in fair value resulting from the remeasurement of the derivative instrument, (c) remove the effect of the interest expense related to the 2019 and 2020 Convertible Notes, in each case, immediately prior to the closing of this offering as of the beginning of the period or the date of issuance, if later, and (d) remove the effect of the interest expense related to the Paycheck Protection Program loan.

(in thousands)	As of December 31, 2020		
	Actual	Pro forma ⁽¹⁾	Pro forma as adjusted ^{(2),(3)}
Balance sheet data:			
Cash, cash equivalents and short-term marketable debt securities	\$ 38,079	\$ 38,079	\$ 109,769
Working capital ⁽⁴⁾	44,967	44,967	118,974
Total assets	55,950	55,950	127,156
Short-term debt	2,043	2,043	—
Long-term debt	50,821	50,821	48,787
Total liabilities	62,360	61,991	57,640
Convertible preferred stock	141,422	—	—
Accumulated deficit	(387,691)	(387,691)	(387,691)
Total stockholders' (deficit) equity	(147,832)	(6,041)	69,516

- (1) The pro forma balance sheet data gives effect to: (i) the conversion of 16,614,178 shares of convertible preferred stock outstanding as of December 31, 2020 into an equal number of shares of common stock upon the closing of this offering; (ii) the issuance of 205,635 shares of Series B' convertible preferred stock upon the net exercise of outstanding warrants as of December 31, 2020 to purchase 346,823 shares of Series B' convertible preferred stock, with an exercise price of \$6.51339 per share, prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and the conversion of such shares of Series B' convertible preferred stock into an equal number of shares of common stock upon the closing of this offering; (iii) the reclassification of the Series B' convertible preferred stock warrant liability to total stockholders' deficit as the warrants will be net exercised, (iv) the issuance of 183 shares of common stock upon the net exercise of outstanding warrants as of December 31, 2020 to purchase 219 shares of common stock, with an exercise price of \$2.60 per share, prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus; and (v) the filing and effectiveness of our amended and restated certificate of incorporation upon the closing of this offering.
- (2) Reflects (i) the pro forma adjustments described in footnote (1); (ii) the issuance and sale of 5,313,000 shares of common stock in this offering at the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us; and (iii) the repayment of approximately \$4.0 million of principal indebtedness, plus any accrued interest, under our Paycheck Protection Program loan.
- (3) Each \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) each of cash, cash equivalents, and short-term marketable debt securities, additional paid-in capital, total stockholders' equity and total capitalization by approximately \$4.9 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, an increase (decrease) of 1,000,000 shares of common stock offered by us would increase (decrease) each of cash, cash equivalents, and short-term marketable debt securities, additional paid-in capital, total stockholders' equity and total capitalization by approximately \$14.9 million, assuming the assumed initial public offering price of \$16.00 per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, remains the same, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. The pro forma and pro forma as adjusted information is illustrative only and we will adjust this information based on the actual initial public offering price and other terms of this offering determined at pricing.
- (4) We define working capital as current assets less current liabilities. See our audited financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities as of December 31, 2020.

RISK FACTORS

Investing in our common stock involves a high degree of risk and uncertainty. You should carefully read, consider, and evaluate the risks described below, as well as all of the other information contained in this prospectus, including “Management’s Discussion and Analysis of Results of Operations” and our financial statements and related notes, before investing in our common stock. While we believe that the risks and uncertainties described below are the material risks currently facing us, additional risks that we do not yet know of or that we currently think are immaterial may also arise and materially affect our business. If any of the following risks materialize, our business, financial condition and results of operations could be materially and adversely affected. In that case, the market price of our common stock could decline, and you may lose some or all of your investment.

Summary Risk Factors

Investing in our common stock involves a high degree of risk because our business is subject to numerous risks and uncertainties, as fully described below. The principal factors and uncertainties that make investing in our common stock speculative or risky include, among others:

- Our sales, business, financial condition and results of operations have been and continue to be impacted by the COVID-19 pandemic;
- We currently rely on our RNS System, which can only be marketed in the United States for use in adults with drug-resistant focal epilepsy, and is recommended as well as implanted primarily at Level 4 CECs. If we are not successful in enhancing awareness of our RNS System, driving adoption across our current target population, increasing referrals to Level 4 CECs, and expanding the population of eligible patients, our sales, business, financial condition and results of operations will be negatively affected;
- Our commercial success will continue to depend on attaining significant market acceptance of our RNS System among patients, clinicians and hospital facilities, primarily Level 4 CECs and increasing the number of patients treated at Level 4 CECs. If we are unable to successfully achieve substantial market acceptance and adoption of our RNS System, our sales, business, financial condition and results of operations would be harmed;
- We depend on a limited number of single-source suppliers and vendors in connection with the manufacture of our products, which makes us vulnerable to supply shortages and price fluctuations that could harm our business, financial condition, and results of operations;
- We may be unable to compete successfully with other treatment options for drug-resistant focal epilepsy, which could harm our sales, business, financial condition and results of operations;
- If adequate reimbursement becomes unavailable for the procedures to implant our RNS System and for clinicians to provide ongoing care for patients treated with our RNS System, it could diminish our sales or affect our ability to sell our RNS System profitably;
- Use of our RNS System requires appropriate neurosurgeon training for implantation and epileptologist training for programming and ongoing patient care, and inadequate training may lead to negative patient outcomes, which could harm our business, financial condition, and results of operations;
- We may not be able to achieve or maintain satisfactory pricing and margins for our RNS System, which could harm our business and results of operations;
- We intend to seek expanded FDA labeling for our RNS System and to be able to treat patients under the age of 18 with drug-resistant focal epilepsy, as well as patients with generalized drug-resistant epilepsy, but if we are unable to broaden the indications for our RNS System to include patients under the age of 18 as well as patients with generalized drug-resistant epilepsy, our growth potential could be harmed;

- If we fail to comply with U.S. federal and state fraud and abuse and other healthcare laws and regulations, including those relating to kickbacks and false claims for reimbursement, we could face substantial penalties and our business, financial condition and results of operations could be harmed;
- Regulatory compliance is expensive, complex and uncertain, and a failure to comply could lead to enforcement actions against us and other negative consequences for our business;
- Our operations are subject to pervasive and continuing FDA regulatory requirements, and failure to comply with these requirements could harm our business, financial condition and results of operations;
- If we are unable to obtain, maintain, protect, enforce and defend patent or other intellectual property protection for our products, or if the scope of the patent and other intellectual property protection obtained is not sufficiently broad, or as a result of our existing or any future out-licenses of our intellectual property, our competitors could develop and commercialize products competitive with ours, and our ability to continue to commercialize our RNS System, or our other products, may be harmed;
- Our collection, use, storage, disclosure, transfer and other processing of sensitive and personal information could give rise to significant costs, liabilities and other risks, including as a result of investigations, inquiries, litigation, fines, legislative and regulatory action and negative press about our privacy and data protection practices, which may harm our business, financial conditions, results of operations and prospects;
- We have a history of net losses, and we expect to continue to incur losses for the foreseeable future. If we do achieve profitability, we may not be able to sustain it;
- We have identified a material weakness in our internal control over financial reporting. If we are unable to remediate this material weakness, or if we identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, we may not be able to accurately or timely report our financial condition or results of operations;
- To support our continued operations and the growth of our business, we may need to seek additional capital through new equity or debt financings, which sources of additional capital may not be available to us on acceptable terms or at all. If we are unable to obtain, if needed, adequate financing or financing on terms satisfactory to us, it could harm our business and growth prospects;
- Our stock price may be volatile, and the value of our common stock may decline; and
- There has been no prior market for our common stock. An active market may not develop or be sustainable and investors may not be able to resell their shares at or above the initial public offering price.

Risks related to operational, commercial and manufacturing matters

Our sales, business, financial condition and results of operations have been and continue to be impacted by the COVID-19 pandemic.

The global spread of the COVID-19 pandemic and measures introduced by local, state and federal governments to contain the virus and mitigate its public health effects have significantly impacted the global economy and negatively impacted our business. Given the uncertainty around the duration and extent of the COVID-19 pandemic, we expect continued, lingering, and far-reaching adverse impacts to our business, results of operations, financial condition, and liquidity, but cannot accurately predict at this time the extent of the future potential impacts.

Multiple states and local jurisdictions have imposed and continue to maintain “shelter-in-place” and “safer-at-home” orders, quarantines, executive orders and similar government orders and restrictions for their residents to control the spread and ameliorate the impact of COVID-19. Additionally, the Centers for Disease Control and Prevention, or the CDC, and other federal agencies have and may continue to issue additional requirements and guidance relative to actions to be taken by individuals and corporations to reduce the spread of COVID-19. Such orders or restrictions, as well as the perceived need by individuals to continue such practices to avoid infection,

among other factors, continue to result in business closures, work stoppages, slowdowns and delays, work-from-home policies, travel restrictions and cancellation of events, among other effects. The states in which our RNS System is made, manufactured, distributed, sold, or implanted are and may continue to be in varying stages of addressing the COVID-19 pandemic. We continue to monitor our operations and government mandates. Our primary operations are in Mountain View, California, and as a result of various shelter-in-place and quarantine orders issued by Santa Clara County and the State of California starting in March 2020, most of our Mountain View-based employees have been telecommuting during the pandemic, which has impacted and may continue to impact certain of our operations over the near and long term. Similar restrictions and orders in other states have limited the ability of our remote sales force to work with physicians and hospitals during the pandemic, which has further impacted and may continue to impact certain of our operations, including our sales process, over the near and long term.

Certain U.S. governmental authorities and certain hospitals have recommended, and in certain cases required, that various elective procedures, including implant procedures for our RNS System, be suspended or canceled to avoid nonessential patient exposure to medical environments and potential infection with COVID-19 and to focus limited healthcare resources and personnel capacity toward the treatment of COVID-19 patients. In addition, hospitals delayed or canceled admissions for epilepsy diagnostic procedures. These actions have resulted in an adverse impact to our ability to sell our RNS System to new and existing customers, customer adoption of our RNS System, and customer use of our RNS System. The disruptions to our activities and operations have negatively impacted and may continue to negatively impact our business, operating results and financial condition. Our sales were particularly negatively impacted in the second quarter of 2020, and while we saw a significant upswing in sales in the third quarter of 2020, in part as a result of procedures completed on the backlog of patients that were not treated during the slowdown in procedures in the second quarter of 2020, there has been a dramatic increase in COVID-19 infections and deaths in the fourth quarter of 2020 and the beginning of 2021, which resulted in further adverse impact to sales of our RNS System, which we expect to continue in 2021.

The widespread pandemic has also had a significant negative effect on the U.S. and global economies and, if the COVID-19 pandemic results in a prolonged economic recession, it would continue to harm our sales, business, operating results, and financial condition.

The impact of COVID-19 on our sales and operations has resulted in changes to the way our resources are allocated, including reduced resources to conduct further clinical studies. Additionally, restrictions on the ability to travel, social distancing policies, orders and restrictions, including those described above, and fears of COVID-19 spreading within hospital facilities, continue to limit access to hospitals or other clinical study sites and create challenges for enrolling and monitoring patients in clinical studies, which has and may further impact our current and future clinical study plans.

Quarantines or government reaction or shutdowns for COVID-19 have disrupted and may disrupt our supply chain, especially for components we source from single-source suppliers. Travel and cargo restrictions may also disrupt our ability to distribute our RNS System or engage with our customers in the ordinary course of business. Any cargo restrictions related to raw materials used to manufacture our RNS System or its components may restrict our ability to manufacture and ship devices and harm our sales, business, operating results, and financial condition.

Our key personnel and other employees have and could continue to be affected by COVID-19. Illness, or the fear of illness, in our workforce as a result of COVID-19 have resulted and may result in reduced availability and productivity. In addition, we may take cost saving measures that lead to reductions in force, furloughs, or altered job responsibilities. These measures could reduce the efficiency of our operations or prove insufficient. Additionally, we have delayed and reduced, and may continue to delay or reduce, certain critical research, development, capital spending, and other projects as a result of COVID-19, which will delay the completion of such projects.

We rely on strong working relationships with epileptologists, neurosurgeons and other medical professionals, as well as the support of key opinion leaders, to market our RNS System. Our sales and marketing personnel rely significantly on in-person and onsite access to clinicians and hospital facilities, primarily Level 4 CECs and programming centers, which has been restricted as hospital facilities reduce access to essential personnel and patients. The COVID-19 pandemic has restrained, and will likely continue to restrain, access to clinicians and

hospital facilities by our sales and marketing team, which will harm our ability to contract with new Level 4 CECs or programming centers, expand our reach within Level 4 CECs and programming centers, and drive referrals to Level 4 CECs. These restrictions have harmed our sales and marketing efforts, and continued restrictions would have a negative impact on adoption of our RNS System and, as a result, a negative impact on our sales, results of operations and financial condition.

Limited supplies of personal protective equipment and COVID-19 testing supplies may further reduce onsite access for our personnel and may delay the lifting of restrictions on elective procedures, including implant procedures for our RNS System.

We currently rely on our RNS System, which can only be marketed in the United States for use in adults with drug-resistant focal epilepsy, and is recommended as well as implanted primarily at Level 4 CECs. If we are not successful in enhancing awareness of our RNS System, driving adoption across our current target population, increasing referrals to Level 4 CECs, and expanding the population of eligible patients, our sales, business, financial condition and results of operations will be negatively affected.

Our business currently depends entirely on our ability to successfully market our RNS System, which includes increasing the number of patients treated at Level 4 CECs, increasing adoption of our RNS System across Level 4 CECs, and driving utilization by clinicians within Level 4 CECs. Currently, our RNS System can only be marketed for use in adults with drug-resistant focal epilepsy in the United States. Additionally, our RNS System is primarily recommended and implanted at Level 4 CECs, which provide advanced diagnosis and management of epilepsy. Therefore, we are dependent on widespread market adoption of our RNS System within a limited number of accounts. We are aiming to expand the population of patients we can treat with our RNS System, as well as the number of physicians that can prescribe and the number of centers at which neurosurgeons can implant our RNS System, but there can be no assurance that we will succeed.

The commercial success of our RNS System will continue to depend on a number of factors, including the following:

- the degree to which drug-resistant epilepsy remains a chronic and debilitating condition;
- the actual and perceived effectiveness, safety and reliability, and clinical benefit, of our RNS System, especially relative to alternative neuromodulation devices such as VNS or DBS;
- the prevalence and severity of any adverse patient events involving our RNS System;
- the degree to which clinicians, patients and hospital facilities, primarily Level 4 CECs, adopt our RNS System;
- the continued effects of the COVID-19 pandemic;
- the availability, relative cost and perceived advantages and disadvantages of alternative technologies or treatment methods for epilepsy;
- the results of additional clinical and other studies relating to the health, safety, economic or other benefits of our RNS System;
- whether key thought leaders in the medical community accept that our clinical efficacy and safety results are sufficiently meaningful to influence their decision to adopt our RNS System over other neuromodulation therapies;
- the extent to which we are successful in educating clinicians, patients, and hospital facilities about the benefits of our RNS System;
- our reputation among clinicians, patients and hospital facilities, primarily Level 4 CECs;

- the strength of our marketing and distribution infrastructure, including our ability to drive adoption and utilization of our RNS System at Level 4 CECs, as well as our ability to develop and maintain relationships with programming centers;
- our ability to obtain, maintain, protect, enforce and defend our intellectual property rights, including in and to our RNS System;
- our ability to maintain compliance with all legal and regulatory requirements, including those applicable to our RNS System;
- our ability to continue to maintain a commercially viable manufacturing process at our manufacturing facility that is compliant with current Good Manufacturing Practices, or cGMP, and Quality Systems Regulations, or QSR;
- our ability to maintain our contractual relationships with our vendors and component suppliers, including single-source vendors and suppliers, through which we obtain critical components for our RNS System;
- the continued coverage of and adequate payment for the implantation procedure and for clinicians to provide ongoing care for patients implanted with our RNS System by third party payors, including both private and government payors; and
- our ability to continue to attract and retain key talent.

If we fail to successfully market and sell our RNS System cost-effectively and maintain and expand our market share, our sales, business, financial condition and results of operations will be negatively affected.

Our commercial success will continue to depend on attaining significant market acceptance of our RNS System among patients, clinicians and hospital facilities, primarily Level 4 CECs and increasing the number of patients treated at Level 4 CECs. If we are unable to successfully achieve substantial market acceptance and adoption of our RNS System, our sales, business, financial condition and results of operations would be harmed.

Our commercial success will depend in large part on the further acceptance by clinicians, patients and hospital facilities, primarily Level 4 CECs, of our RNS System as safe, useful, and cost-effective, and increasing the number of patients treated at Level 4 CECs. We cannot predict how quickly, if at all, additional clinicians, patients, and hospital facilities will adopt our RNS System over competing neuromodulation devices or surgical treatment options at Level 4 CECs that are appropriate for implant of our RNS System. For example, clinicians may be reluctant to use our RNS System due to familiarity with neuromodulation devices that are more established. Clinicians, patients, and hospital facilities may continue to prefer resective or ablative surgery or alternative neuromodulation therapies such as VNS and DBS. Moreover, we cannot predict how quickly, if at all, those currently suffering from epilepsy but who are not being treated will seek treatment or utilize Level 4 CECs for treatment. Our ability to grow sales of our RNS System and drive market acceptance will depend on successfully educating clinicians, patients, and hospital facilities of the relative benefits of our RNS System.

Additionally, patients rely on their healthcare providers, including epileptologists and neurosurgeons to recommend a course of treatment. If we are unable to successfully achieve substantial market acceptance and adoption of our RNS System by additional clinicians, patients, and hospital facilities, patients may be reluctant to use our products over alternative neuromodulation therapies. If we are unable to successfully drive patient interest in our RNS System, our business, financial condition and results of operations would be harmed.

Our commercial success will depend on a continued flow of patient referrals to Level 4 CECs from treating primary care physicians, neurologists, and other healthcare providers and from caregiver support and encouragement around physician referrals and self-referrals to Level 4 CECs. If we are unable to successfully achieve an increased patient referral pipeline into Level 4 CECs, our sales, business, financial condition and results of operations would be harmed.

Our commercial success will depend in large part on continued referrals of appropriate patients from treating primary care physicians, neurologists, and other healthcare providers to epileptologists, neurosurgeons, and other

clinicians, primarily at Level 4 CECs. We estimate that of the approximately 575,000 adults with drug-resistant focal epilepsy in the United States, approximately 24,000 adult drug-resistant focal epilepsy patients are treated in Level 4 CECs annually. We cannot predict how quickly, if at all, we can build that pipeline through our sales and marketing efforts and whether primary care physicians, neurologists, and other healthcare providers, as well as caregivers will support patient referrals to epileptologists and neurosurgeons at Level 4 CECs over other therapy options.

Primary care physicians, neurologists, and other healthcare providers may continue to prefer traditional treatments, such as additional attempts to treat with new therapeutic drugs that become available from time to time, including for fear of losing management of the patient's care. If we are unable to educate clinicians to follow national guidelines, which recommend that patients whose seizures have not been brought under control after three months of care by a primary care physician or after 12 months of seeing a general neurologist be referred to a Level 3 or Level 4 CEC, we may be unable to successfully build our patient pipeline. This could harm our business, financial condition and results of operations.

Various factors outside our direct control, including the COVID-19 pandemic, may negatively impact our manufacturing of our RNS System, which could harm our business, financial condition, and results of operations.

We manufacture our RNS System at our manufacturing facility in Mountain View, California. This facility supports our production operations, including manufacturing, quality control, and raw material and finished goods storage. We believe that we currently have adequate manufacturing capacity and supplies for our products sufficient to meet our demand forecasts. If demand for our RNS System increases more rapidly than we anticipate, if we encounter problems with one or more of our suppliers, or if we secure regulatory approval to commercialize our products in additional geographies or indications, we may need to either expand our manufacturing capabilities, qualify new suppliers, or outsource to other manufacturers.

Our manufacturing and distribution operations are subject to regulatory requirements of the FDA's Quality System Regulation, or QSR, for medical devices sold in the United States. Manufacturers of medical device products often encounter difficulties in production, including difficulties with production costs and yields, quality control, quality assurance testing, shortages of qualified personnel, as well as compliance with strictly enforced FDA requirements, other federal and state regulatory requirements, and foreign regulations, to the extent applicable. If we fail to manufacture our products in compliance with QSR, or if our manufacturing facility suffers disruptions, supply chain issues, machine failures, slowdowns or disrepair, we may not be able to fulfill customer demand and our business would be harmed. Further, we typically do not maintain more than several months of inventory on hand and we manufacture our products using near term demand forecasts. As a result, deviations from our forecasts could cause us to fail to meet demand for our products.

Since we produce our products in one manufacturing facility, any contamination of the controlled environment, equipment malfunction, supply issues, personnel issues, including human error, or failure to strictly follow procedures can significantly reduce our yield. A drop in yield can increase our cost to manufacture our products or, in more severe cases, require us to halt the manufacture of our products until the problem is resolved. Identifying and resolving the cause of a drop in yield can require substantial time and resources. In addition, if demand for our products shifts such that our manufacturing facility is operated below our forecasts for an extended period, we may adjust our manufacturing operations to reduce fixed costs, which could lead to uncertainty and delays in manufacturing times and quality during any transition period.

The manufacturing, sterilization and distribution of our products are technically challenging. Changes that our suppliers may make, or additional requirements from regulatory agencies, outside of our direct control can have an impact on our processes, on quality and on the successful or timely delivery of our products to our customers. Mistakes and mishandling may occur, which can affect supply and delivery. As a result, our dependence on third-

party, including single source, suppliers, subjects us to a number of risks that could impact our ability to manufacture our products and harm our business, financial condition, and results of operations, including:

- interruption of supply resulting from modifications to, or discontinuation of, a supplier's operations, including due to the COVID-19 pandemic;
- delays in product shipments resulting from uncorrected defects, reliability issues or a supplier's failure to produce components that consistently meet our quality specifications;
- delays in analytical results or failure of analytical techniques that we depend on for quality control and release of our products;
- price fluctuations due to a lack of long-term supply arrangements with our suppliers for key components;
- inability to obtain adequate supply in a timely manner or on commercially reasonable terms;
- difficulty identifying and qualifying alternative suppliers for components in a timely manner;
- inability of suppliers to comply with applicable provisions of the QSR or other applicable laws or regulations enforced by the FDA and other Federal and state regulatory authorities;
- delays in regulatory approvals of any changes to manufacturing, including the use of new suppliers;
- latent defects that may become apparent after our products have been released and that may result in an adverse event or a recall of such products;
- inclusion of vendors of raw materials not in compliance with regulatory requirements;
- natural or other disasters, global pandemics, labor disputes, financial distress, lack of raw material supply, issues with facilities and equipment or other forms of disruption to business operations affecting our manufacturer or its suppliers;
- production delays related to the evaluation and testing of our products or the use of components from alternative suppliers;
- failure to complete sterilization on time or in compliance with the required regulatory standards; and
- delays in delivery by our suppliers of components, materials, or services due to changes in demand from us or their other customers.

The occurrence of any of these issues could significantly harm our ability to manufacture our products and maintain sufficient quality standards, which would negatively impact our sales, business, financial condition, and results of operations.

We depend on a limited number of single-source suppliers and vendors in connection with the manufacture of our RNS System, which makes us vulnerable to supply shortages and price fluctuations that could harm our business, financial condition, and results of operations.

We source and rely upon materials, components, and sub-assemblies of our RNS System, as well as manufacturing services from approved suppliers, most of which are single source suppliers. For example, Micro Systems Technologies Management AG and Greatbatch Ltd are single source suppliers of several key components of our products, including printed circuit assemblies and batteries. In addition, certain of our suppliers are not under long-term contracts with us.

These components, materials, and services, which also include silicone adhesive, integrated circuits, and other components, are critical and there are relatively few alternative sources of supply. We believe our single source suppliers are capable of continuing to meet our specifications and maintaining quality, but any significant problem experienced by one of our single source suppliers may result in a delay or interruption in the supply of components,

materials, or services to us. Our suppliers may experience manufacturing delays or issues, stop producing our components, materials, or services, increase the prices they charge us, or elect to terminate their relationships with us. In any of these cases, we could face a delay of several months to identify, perform appropriate testing, and qualify alternative suppliers and service providers with regulatory authorities, as we do not currently have supplier transition plans. In addition, the failure of our third-party suppliers and service providers to maintain acceptable quality requirements could result in the recall of our products. If one of our suppliers fails to maintain acceptable quality requirements, we may have to identify and qualify a new supplier. Although we require our third-party suppliers to supply us with materials, components and services that meet our specifications and comply with applicable provisions of the FDA's QSR and other applicable legal and regulatory requirements in our agreements and contracts, and we perform incoming inspection, testing or other acceptance activities to ensure the materials and components meet our requirements, there is a risk that our suppliers will not always act consistent with our best interests, and may not always supply components that meet our requirements or supply components in a timely manner.

The number of third-party suppliers with the necessary manufacturing and regulatory expertise and facilities is limited and certification of a new supplier may be complex and time consuming. Any delay or interruption would likely lead to a delay or interruption in our manufacturing operations. The inclusion of substitute components must meet our product specifications and could require us to qualify the new supplier with the appropriate regulatory authorities, including the FDA. The added time and cost to arrange for alternative suppliers could harm our business. New manufacturers of any planned product would be required to qualify under applicable regulatory requirements and would need to have sufficient rights under applicable intellectual property laws to the method of manufacturing the planned product. Obtaining the necessary FDA or international approvals or other qualifications under applicable regulatory requirements and ensuring non-infringement of third-party intellectual property or other proprietary rights could result in a significant interruption of supply and could require the new manufacturer to bear significant additional costs that may be passed on to us.

If we fail to optimize our sales and marketing capabilities and develop widespread brand awareness cost-effectively, our growth will be impeded and our business may suffer.

We are actively expanding our presence in the United States through additional sales and education efforts to drive adoption of our RNS System at Level 4 CECs and increase utilization of our RNS System within new and existing accounts. We also plan to explore regulatory and reimbursement approval pathways to expand our presence in international territories.

We take a measured approach to optimize our sales infrastructure to grow our customer base and our business. Identifying and recruiting qualified personnel and training them on the use of our RNS System, on applicable federal and state laws and regulations and on our internal policies and procedures, requires significant time, expense and attention, particularly given our strategy of having each Therapy Consultant, or sales representative, cover many accounts. It can take significant time before our Therapy Consultants are fully trained and productive and before they have established relationships with their target accounts. Our business may be harmed if our efforts to optimize do not generate a corresponding increase in revenue or result in a decrease in our operating margin. 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.

We dedicate significant financial and other resources to our customer outreach and training programs, which may require us to incur significant upfront costs. For example, we may need to conduct additional physician trainings across hospital facilities, including Level 4 CECs. Our sales force may also need to develop additional efficiencies and approaches to address potential growth as we expand into additional existing Level 4 CECs, new Level 4 CECs and the increasing number of epileptologists recommending, and neurosurgeons implanting, our RNS System within each Level 4 CEC. Our business would be harmed if our programs and associated expenditures do not generate a corresponding increase in revenue.

In addition, we believe that developing and maintaining awareness of our brand in a cost-effective manner is critical to achieving broad acceptance of our products and attracting new customers. Brand promotion activities may

not generate customer 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 realize a sufficient return on our brand-building efforts, or to achieve the widespread brand awareness that is critical for broad adoption of our RNS System.

We may be unable to compete successfully with other treatment options for drug-resistant focal epilepsy, which could harm our sales, business, financial condition and results of operations.

Our industry is competitive and has been evolving rapidly with not only existing treatment options, but also the introduction of new products and technologies as well as the market activities of industry participants. Our RNS System is indicated for adult patients with drug-resistant focal epilepsy in the United States and we primarily market our device to customers, primarily consisting of the clinicians within Level 4 CECs that treat these patients. In our target patient population, there are two primary treatment options (i) an ablative or resective surgery, or (ii) implantation of a neuromodulation device. Patients may also choose not to actively seek additional treatment for epilepsy or may choose to try new therapeutic drugs that become available from time to time. We estimate that approximately 80% of drug-resistant focal epilepsy patients are either not ideal candidates for ablative or resective surgery or are unwilling to undergo a destructive surgical procedure and we compete primarily with two manufacturers of neuromodulation devices for the treatment of these patients. Our primary competitors are LivaNova plc, which manufactures the VNS System, and Medtronic plc, which manufactures the DBS System. Third-party payors may encourage the use of competitors' products or other neuromodulation therapies due to lower costs of competing products or alternatives. Additionally, treating physicians, including epileptologists and neurosurgeons may promote the use of other competitors' products or alternative therapies. Further, as existing competitors and other companies develop new or improved products, we cannot predict what the standard of care will be in the future.

Our primary competitors are large, well-capitalized companies with significant market share and resources. They have more established sales and marketing programs than we do and have greater name recognition. These competitors also have long operating histories and may have more established relationships with potential customers. In addition to competing for market share, competitors may develop or acquire patents or other rights that may limit our ability to compete.

The medical device industry is intensely competitive, subject to rapid change and significantly affected by new product introductions and other market activities of industry participants. There can be no assurance that other companies or institutions will not succeed in developing or marketing devices and products that are more effective or safer than our RNS System or that would render our RNS System obsolete or noncompetitive.

We believe that the clinical advantages of our RNS System and our focus on neuromodulation will be important factors in our future success. Our continued success depends on, among other things, our ability to:

- continue to demonstrate safety and efficacy in our Post-Approval Study and in ongoing commercial use;
- expand the number of Level 4 CECs implanting our RNS System and increase utilization across these Level 4 CECs;
- drive awareness to increase the number of drug-resistant epilepsy patients referred to Level 4 CECs;
- maintain adequate reimbursement for implant procedures and for clinicians to provide ongoing care of patients treated with our RNS System;
- attract and retain skilled research, development, sales, marketing and clinical personnel;
- continue to innovate in order to improve therapy effectiveness and enhance the patient and provider experience;
- obtain and maintain regulatory clearances and approvals, including for expanded indications;
- cost-effectively manufacture, market and sell our RNS System;

- obtain, maintain, protect, enforce and defend our intellectual property rights and operate our business without infringing, misappropriating or otherwise violating the intellectual property rights of others;
- acquire products or technologies complementary to or necessary for our business; and
- source materials, components, and sub-assemblies from suppliers on a cost-effective and timely basis.

Adoption of our RNS System depends on positive clinical data as well as clinician acceptance of the data and our products, and negative clinical data or perceptions among these clinicians would harm our sales, business, financial condition, and results of operations.

The rate of adoption and sales of our products are heavily influenced by clinical data. Although we have positive clinical data across four multi-center FDA approved prospective clinical studies going out as far as nine years, there can be no assurance that clinical data will continue to be positive for our ongoing studies, such as our Post-Approval Study. Additionally, there can be no assurance that future clinical studies, including those to continue demonstrating the efficacy of our products in currently approved patient populations and those to support label retention and expansion for our products will demonstrate safety and effectiveness. Unfavorable or inconsistent clinical data from ongoing or future clinical studies conducted by us, our competitors, or third parties, the negative interpretation of our clinical data internally and externally, including by customers, competitors, patients, and regulators, or findings of new or more frequent adverse events, could harm our business, financial condition, and results of operations.

The rate of adoption and sales of our products are also influenced by clinician perceptions. Negative perceptions of our products by clinicians, including due to negative clinical data, could result in decreased adoption or use of our products, which would harm our business, financial condition, and results of operations. Additionally, if key opinion leaders who support our products cease to recommend our products, our business, financial condition and results of operations will be harmed. Further, if we cannot maintain strong working relationships with clinicians and continue to receive their advice and input, the marketing of our products could suffer, which could harm our business, financial condition and results of operations. The COVID-19 pandemic and related restrictions on access to clinicians have impacted, and will likely continue to impact, our ability to maintain such relationships. Finally, although we have demonstrated the safety, effectiveness and clinical advantages of our products in pivotal clinical studies, neuromodulation is still a relatively new approach to treating drug-resistant focal epilepsy. The results of clinical studies of the products conducted to date and from commercial use do not necessarily predict future results. Any negative long-term results or adverse events from use of our products that arise in the future could harm our business, financial condition, and results of operations.

Our future success also depends upon patients having an understanding of how to properly use our RNS System and an experience with our products that meets their expectations in order to increase clinician demand for our products as a result of positive feedback and word-of-mouth. Patients may be dissatisfied if their expectations of the procedure and results are not met or if they are not adequately trained on use of our RNS System. Patients may be dissatisfied if they experience adverse events or insufficient reduction in frequency of seizures. If the results of our products do not meet the expectations of the patients, or the patient experiences adverse events, it could discourage the patient from referring our products to others. Dissatisfied patients may express negative opinions through social media, advocacy, or other publicity. Any failure to meet patient expectations and any resulting negative publicity could harm our reputation and future sales.

If adequate reimbursement becomes unavailable for the procedures to implant our RNS System and for clinicians to provide ongoing care for patients treated with our RNS System, it could diminish our sales or affect our ability to sell our RNS System profitably.

The implant procedure for our RNS System and the ongoing patient care provided by clinicians, including monitoring and programming, are reimbursed under well-established physician and hospital codes. Our ability to increase sales of our RNS System depends, in significant part, on the availability of adequate financial coverage and reimbursement from third-party payors, including governmental payors (such as the Medicare and Medicaid programs in the United States), managed care organizations, and private health insurers. Third-party payors decide which treatments they will cover and establish reimbursement rates for those treatments. We do not bill any third-

party payors for our RNS System. Instead, our RNS System is bundled as part of the payment received by healthcare providers for the procedures in which our RNS System is used.

We expect our RNS System will continue to be purchased by hospital facilities, primarily Level 4 CECs, and other providers who will then seek reimbursement from third-party payors for brain-responsive neuromodulation for drug resistant focal epilepsy. While third-party payors currently cover and provide reimbursement for both implant procedures of our RNS System as well as for clinicians providing ongoing patient care, we can give no assurance that these third-party payors will continue to provide coverage and adequate reimbursement, or that current reimbursement levels for implant procedures as well as clinician-provided ongoing patient care will continue.

Furthermore, the overall amount of reimbursement available for brain-responsive neuromodulation for drug resistant focal epilepsy could decrease in the future. Changes in reimbursement may not necessarily impact our sales. Additionally, we cannot be sure that the reimbursement amounts available for brain-responsive neuromodulation for drug resistant focal epilepsy will not reduce or otherwise negatively impact the demand for our marketed RNS System. Failure by Level 4 CECs and other users of our RNS System to obtain coverage and adequate reimbursement for the implant procedures or for clinicians providing ongoing patient care would cause our business, financial condition, and results of operations to suffer.

Use of our RNS System requires appropriate neurosurgeon training for implantation and epileptologist training for programming and ongoing patient care, and inadequate training may lead to negative patient outcomes, which could harm our business, financial condition, and results of operations.

The successful use of our RNS System depends in part on the training and skill of the neurosurgeon performing the implant procedure as well as the clinician, typically an epileptologist, performing the subsequent programming of our RNS System and monitoring the patient response. Clinicians could experience difficulty with the technique necessary to successfully implant and program our RNS System, and monitor patients if they do not receive appropriate training. Moreover, epileptologists and neurosurgeons rely on their previous medical training and experience when recommending or implanting our RNS System, and we cannot guarantee that all neurosurgeons will have the necessary implantation skills to properly perform the procedure. We cannot be certain that physicians or healthcare providers that use our RNS System have received sufficient training, and physicians or healthcare providers who have not received adequate training may nonetheless attempt to use our RNS System with their patients. If neurosurgeons or epileptologists implant or utilize our RNS System incorrectly, or without adhering to or completing all relevant training, their patient outcomes may not be consistent with the outcomes achieved in our clinical studies. Adverse safety outcomes that arise from improper or incorrect use of our RNS System may negatively impact the perception of patient benefit and safety of our RNS System, notwithstanding results from our clinical studies. These results could limit adoption of our RNS System in treatment for drug-resistant focal epilepsy, which would harm our sales, business, financial condition, and results of operations.

We are highly dependent on our senior management team and key personnel, and our business could be harmed if we are unable to attract and retain personnel necessary for our success.

We are highly dependent on our senior management and key personnel. Our success will depend on our ability to retain senior management and to attract and retain qualified personnel in the future, including sales and marketing professionals, engineers, scientists, clinical trial specialists and other highly skilled personnel and to integrate current and additional personnel in all departments. The loss of members of our senior management, marketing professionals, engineers, scientists and clinical trial specialists could result in delays in product development and harm our business.

Competition for skilled personnel in our market is intense and may limit our ability to hire and retain highly qualified personnel on acceptable terms, or at all. To induce valuable employees to remain at our company, in addition to salary and cash incentives, we have issued stock options that vest over time. The value to employees of stock options that vest over time may be significantly affected by fluctuations in our stock price that are beyond our control, and may at any time be insufficient to counteract more lucrative offers from other companies. Despite our efforts to retain valuable employees, members of our management and other key personnel may terminate their employment with us on short notice. Our employment arrangements with our employees provide for at-will

employment, which means that any of our employees could leave our employment at any time, with or without notice. We also do not maintain “key man” insurance policies on the lives of these individuals or the lives of any of our other employees.

We rely on our own direct sales force to market and sell our RNS System, and if we are unable to optimize our sales force, it could harm our business. Our operating results are directly dependent upon the sales and marketing efforts of our sales and customer support team. If our employees fail to adequately promote, market and sell our products, our sales could significantly decrease. As we launch new products, expand our product offerings and increase our marketing efforts with respect to existing products, we will need to expand the reach of our marketing and sales networks. Our future success will depend largely on our ability to continue to hire, train, retain and motivate skilled employees with significant technical knowledge in various areas. An inability to attract, hire, train and retain employees will harm our sales, business, financial condition, and results of operations.

We expect to increase the size of our organization in the future, and we may experience difficulties in managing this growth. If we are unable to manage the anticipated growth of our business, our future revenue and operating results may be harmed.

As of December 31, 2020, we had 152 employees. As our sales and marketing strategies develop and as we transition into operating as a public company, we expect to need additional managerial, operational, sales, marketing, financial and other personnel. Future growth would impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- managing our internal development efforts effectively, while complying with our contractual obligations to contractors and other third parties; and
- improving our operational, financial and management controls, reporting systems and procedures.

Our future financial performance and our ability to successfully market and sell our RNS System will depend, in part, on our ability to effectively manage any future growth, and our management may also have to divert a disproportionate amount of attention away from day-to-day activities in order to devote a substantial amount of time to managing these growth activities.

As demand for our RNS System increases, we will need to continue to scale our capacity at our manufacturing facility, expand customer service, billing and systems processes and enhance our internal quality assurance program. We cannot be certain that any increases in scale, related improvements and quality assurance will be successfully implemented or that appropriate personnel will be available to facilitate the growth of our business. If we encounter difficulty meeting market demand, quality standards or physician expectations, our reputation will be harmed and our business will suffer. Additionally, additional growth may result in higher fixed costs and may slow our ability to reduce costs in the face of a sudden decline in demand for our products.

We may not be able to achieve or maintain satisfactory pricing and margins for our RNS System, which could harm our business and results of operations.

Manufacturers of medical devices have a history of price competition, and we can give no assurance that we will be able to maintain satisfactory prices for our RNS System at the levels we have historically achieved. The pricing of our products could be impacted by several factors, including pressure to reduce prices by our customers due to a decline in the amount that third-party payors reimburse for implant procedures using our RNS System for clinicians providing ongoing patient care. A decline in the amount that third-party payors reimburse our customers for ongoing patient care could also make it difficult for programming centers to conduct ongoing patient support without a corresponding reduction in prices for our products. If we are forced to lower the price we charge for our RNS System, our gross margins will decrease, which will harm our ability to invest in and grow our business. If we are unable to maintain our prices, or if our costs increase and we are unable to offset such increase with an increase in our prices, our margins could erode, which could harm our business and results of operations.

Our results of operations may be harmed if we are unable to accurately forecast customer demand for our products.

We do not maintain large amounts of excess inventory at any given time. To ensure adequate supply, we must forecast inventory needs and manufacture our products based on our estimates of future demand. Our ability to accurately forecast demand for our products could be negatively affected by many factors, including our failure to accurately manage our expansion strategy, product introductions by competitors, an increase or decrease in customer demand for our products or for competitor products, our failure to accurately forecast customer adoption of new products, unanticipated changes in general market conditions or regulatory matters and weakening of economic conditions or consumer confidence in future economic conditions, as well as the ongoing COVID-19 pandemic. Inventory levels in excess of customer demand may result in inventory write-downs or write-offs, which would cause our gross margin to be adversely affected and could impair the strength of our brand. Conversely, if we underestimate customer demand for our products, our manufacturing team may not be able to deliver products to meet our requirements, and this could result in damage to our reputation and customer relationships. In addition, if we experience a significant increase in demand, additional supplies of components, materials, or services, or additional manufacturing capacity may not be available when required on terms that are acceptable to us, or at all, which may negatively affect our business, financial condition, and results of operations.

We intend to seek expanded FDA labeling for our RNS System to be able to treat patients under the age of 18 with drug-resistant focal epilepsy, as well as patients with generalized drug-resistant epilepsy, but if we are unable to broaden the indications for our RNS System to include these patients, our growth potential could be harmed.

Our products are subject to extensive regulation by the FDA in the United States. Before a new medical device or a new intended use for an existing medical device can be marketed in the United States, we must first submit and receive either 510(k) clearance pursuant to Section 510(k) of the Food, Drug and Cosmetic Act, or the FDCA, or approval of a premarket approval, or PMA, application from the FDA, unless an exemption applies.

If clinical studies do not produce results necessary to support regulatory clearance or approval to expand our indications to include patients under the age of 18 with drug-resistant focal epilepsy or patients with generalized drug-resistant epilepsy, we will be unable to obtain and maintain necessary approvals to expand our indications to include these patients in accordance with our expected timelines, which could harm our growth potential. Furthermore, we could incur substantial costs and the attention of management could be diverted throughout this process.

We may expand sales of our RNS System internationally in the future, but we may experience difficulties in obtaining regulatory clearance or approval or in successfully marketing our RNS System internationally even if approved. A variety of risks associated with marketing our RNS System internationally could harm our growth potential.

While our RNS System is not yet approved for sale outside the United States, we may pursue regulatory and reimbursement approval pathways in markets outside of the United States. Sales of our RNS System outside of the United States will be subject to foreign regulatory requirements governing clinical studies and marketing approval, as well as additional post-approval requirements. We would incur substantial expenses in connection with any international expansion. Additional risks related to operating in foreign countries include:

- differing regulatory requirements in foreign countries, including with respect to data privacy and security;
- differing reimbursement regimes in foreign countries, including price controls;
- unexpected changes in tariffs, trade barriers, price and exchange controls and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;

- foreign currency fluctuations, which could result in increased operating expenses or reduced revenue;
- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential liability under the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, or comparable foreign regulations;
- challenges enforcing our contractual and intellectual property rights as well as intellectual property theft or compulsory licensing, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States; and
- business interruptions resulting from geopolitical actions, including war and terrorism.

These and other risks associated with international operations may harm our ability to attain or maintain profitable operations internationally, which would harm our growth potential.

In addition, there can be no guarantee that we will receive approval to sell our RNS System in every international market we target, nor can there be any guarantee that any sales would result even if such approval is received. Approval in the United States, or in any other jurisdiction, does not ensure approval in other jurisdictions. Obtaining foreign approvals could result in significant delays, difficulties and costs for us and require additional studies and additional expenses. Regulatory requirements can vary widely from country to country and could delay the introduction of our RNS System in those countries. If we fail to comply with these regulatory requirements or to obtain and maintain required approvals, our target market will be reduced and our ability to generate revenue will be diminished. Our inability to successfully enter all our desired international markets and manage business on a global scale could harm our growth potential.

Further, there are foreign privacy laws and regulations that impose restrictions on the collection, use, storage, disclosure, transfer and other processing of personal data, including health information. For example, the European Union General Data Protection Regulation, or the GDPR, imposes stringent data protection requirements, including, for example, more robust disclosures to individuals, a strengthened individual data rights regime, shortened timelines for data breach notifications, limitations on retention of information, increased requirements pertaining to special categories of data, such as health data, and additional obligations regarding third-party processors in connection with the processing of the personal data. Our failure to comply with the GDPR or other applicable foreign privacy laws or regulations or significant changes in the laws and regulations restricting our ability to obtain or use required patient information could significantly impact our business and our future business plans.

Risks related to government regulation and our industry

If we fail to comply with U.S. federal and state fraud and abuse and other healthcare laws and regulations, including those relating to kickbacks and false claims for reimbursement, we could face substantial penalties and our business, financial condition and results of operations could be harmed.

Healthcare providers play a primary role in the distribution, recommendation, ordering and purchasing of any medical device for which we have or obtain marketing clearance or approval. Through our arrangements with healthcare professionals and hospital facilities, we are exposed to broadly applicable anti-fraud and abuse, anti-kickback, false claims and other healthcare laws and regulations that may constrain our business, our arrangements and relationships with customers, and how we market, sell and distribute our marketed medical devices. We have a compliance program, code of conduct and associated policies and procedures, but it is not always possible to identify and deter misconduct by our employees, contractors, and other third parties, including our customers, and the precautions we take to detect and prevent noncompliance may not be effective in protecting us from governmental investigations for failure to comply with applicable fraud and abuse or other healthcare laws and regulations.

In the United States, we are subject to various state and federal anti-fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute and federal civil False Claims Act, or the FCA. Our relationships with

physicians, other health care professionals and hospitals are subject to scrutiny under these laws. There are also similar laws in other countries that we may become subject to if we expand internationally.

The laws that may affect our ability to operate include, among others:

- the Anti-Kickback Statute, which prohibits, among other things, knowingly and willingly soliciting, offering, receiving or paying remuneration, directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward either the referral of an individual, or the purchase, order or recommendation of, items or services for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs;
- federal civil and criminal false claims laws, including the FCA, and civil monetary penalties laws, which prohibits, among other things, persons or entities from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment of government funds and knowingly making, using or causing to be made or used, a false record or statement to get a false claim paid or to avoid, decrease or conceal an obligation to pay money to the federal government;
- the Health Insurance Portability & Accountability Act of 1996, or HIPAA, which applies to our customers and some of their downstream vendors and contractors, imposes criminal and civil liability for, among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors, or knowingly and willfully falsifying, concealing or covering up a material fact or making a materially false, fictitious or fraudulent statement or representation, or making or using any false writing or document knowing the same to contain any materially false, fictitious or fraudulent statement or entry in connection with the delivery of or payment for healthcare benefits, items or services;
- various state laws governing the privacy and security of personal information, including the California Consumer Privacy Act, or the CCPA, which became effective on January 1, 2020, and regulates the processing of personal information of California residents and increases the privacy and security obligations of covered companies handling such personal information. The CCPA requires covered companies to, amongst other things, provide new and additional disclosures to California residents, and affords such residents new abilities to access their personal information and opt out of certain sales of personal information; and
- the federal Physician Payments Sunshine Act, also known as Open Payments, which requires manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program to report annually, with certain exceptions to the Centers for Medicare & Medicaid Services, or CMS, information related to payments or other "transfers of value" made to physicians, as defined by such law, and teaching hospitals, and requires applicable manufacturers and group purchasing organizations to report annually to CMS ownership and investment interests held by physicians and their immediate family members.

State and federal regulatory and enforcement agencies continue to actively investigate violations of healthcare laws and regulations, and the U.S. Congress continues to strengthen the arsenal of enforcement tools. Most recently, the Bipartisan Budget Act of 2018, or the BBA, increased the criminal and civil penalties that can be imposed for violating certain federal health care laws, including the Anti-Kickback Statute. Enforcement agencies also continue to pursue novel theories of liability under these laws. In particular, government agencies have increased regulatory scrutiny and enforcement activity with respect to manufacturer reimbursement support activities and patient care programs, including bringing criminal charges or civil enforcement actions under the Anti-Kickback Statute, federal civil FCA and HIPAA's healthcare fraud and privacy provisions.

Achieving and sustaining compliance with applicable federal and state anti-fraud and abuse laws may prove costly. If we or our employees are found to have violated any of the above laws we may be subjected to substantial criminal, civil and administrative penalties, including imprisonment, exclusion from participation in federal healthcare programs, such as Medicare and Medicaid, and significant fines, monetary penalties, forfeiture, disgorgement and damages, contractual damages, reputational harm, administrative burdens, diminished profits and

future earnings and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our financial results. Any action or investigation against us for the violation of these healthcare fraud and abuse laws, even if successfully defended, could result in significant legal expenses and could divert our management's attention from the operation of our business. Companies settling federal civil FCA, Anti-Kickback Statute or civil monetary penalties law cases also may be required to enter into a Corporate Integrity Agreement with the OIG, in order to avoid exclusion from participation (such as loss of coverage for their products) in federal healthcare programs such as Medicare and Medicaid. Corporate Integrity Agreements typically impose substantial costs and operational burdens on companies to ensure compliance. Defending against any such actions can be detrimental to our reputation and brand and can otherwise be costly, time-consuming and may require significant personnel resources, and may harm our business, financial condition and results of operations.

In addition, the medical device industry's relationship with physicians is under increasing scrutiny by the OIG, the U.S. Department of Justice, or the DOJ, the state attorney generals and other foreign and domestic government agencies. Our failure to comply with requirements governing the industry's relationships with physicians or an investigation into our compliance by the OIG, the DOJ, state attorney generals and other government agencies, could harm our business, financial condition and results of operations.

Our employees, independent contractors, consultants, commercial partners and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could harm our business, financial condition and results of operations.

We are exposed to the risk that our employees, independent contractors, consultants, commercial partners and vendors may engage in fraudulent or illegal activity. Misconduct by these parties could include intentional, reckless or negligent conduct or disclosure of unauthorized activities to us that violates: (i) the laws of the FDA and other similar foreign regulatory bodies, including those laws requiring the reporting of true, complete and accurate information to such regulators; (ii) manufacturing standards; (iii) healthcare fraud and abuse laws in the United States and similar foreign fraudulent misconduct laws; or (iv) laws that require the true, complete and accurate reporting of financial information or data. These laws may impact, among other things, future sales, marketing and education programs. In particular, the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commissions, certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical studies.

We have adopted a code of conduct, employee handbook, and compliance policies, but it is not always possible to identify and deter misconduct by our employees and other third parties, and the precautions we take to detect and prevent these activities may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant fines or other sanctions, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, disgorgement, imprisonment, reporting and oversight obligations, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, diminished profits and future earnings and curtailment of operations, any of which could adversely affect our ability to operate our business and our results of operations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could result in integrity issues, or a negative impact to our reputation or brand. Whether or not we are successful in defending against any such actions or investigations, we could incur substantial costs, including legal fees, and divert the attention of management in defending ourselves against any of these claims or investigations, which could harm our business, financial condition and results of operations.

Regulatory compliance is expensive, complex and uncertain, and a failure to comply could lead to enforcement actions against us and other negative consequences for our business.

The FDA and similar agencies regulate our products as medical devices. Complying with these regulations is costly, time-consuming, complex and uncertain. For instance, before a new medical device, or a new intended use for an existing device, can be marketed in the United States, a company must first submit and receive either 510(k) clearance or approval of a PMA from the FDA, unless an exemption applies. FDA regulations and regulations of similar agencies are wide-ranging and include, among other things, oversight of:

- product design, development, manufacturing (including suppliers) and testing;
- laboratory, preclinical and clinical studies;
- product safety and effectiveness;
- product labeling;
- product storage and shipping;
- record keeping;
- pre-market clearance or approval;
- marketing, advertising and promotion;
- product sales and distribution;
- product changes;
- product recalls; and
- post-market surveillance and reporting of deaths or serious injuries and certain malfunctions.

Our products are subject to extensive regulation by the FDA and if we expand internationally in the future may be subject to extensive regulation by non-U.S. regulatory agencies. Further, improvements of our existing products, any potential new products, and new indications for use of our current products will be subject to extensive regulation, and we may require permission from regulatory agencies and ethics boards to conduct clinical studies, as well as clearance or approval from the FDA prior to commercial sale. In order to commercialize and distribute our products in markets outside of the United States, it will require approval from non-U.S. regulatory agencies.

The FDA and foreign regulatory bodies can delay, limit or deny clearance or approval of a device for many reasons, including:

- our inability to demonstrate to the satisfaction of the FDA or the applicable regulatory entity or notified body that our products are safe or effective for their intended uses;
- the disagreement of the FDA or the applicable foreign regulatory body with the design or implementation of our clinical studies or the interpretation of data from clinical studies;
- serious and unexpected adverse device effects experienced by participants in our clinical studies;
- the data from our preclinical studies and clinical studies may be insufficient to support clearance or approval, where required;
- our inability to demonstrate that the clinical and other benefits of the device outweigh the risks;
- the manufacturing process or facilities we use may not meet applicable requirements; and

- the potential for approval policies or regulations of the FDA or applicable foreign regulatory bodies to change significantly in a manner rendering our clinical data or regulatory filings insufficient for clearance or approval.

Failure to comply with applicable U.S. requirements regarding, for example, promoting, manufacturing or labeling our RNS System, may subject us to a variety of administrative or judicial actions and sanctions, such as Form 483 observations, warning letters, untitled letters, product recalls, product seizures, and total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution. Any enforcement action by the FDA and other comparable non-U.S. regulatory agencies could harm our business, financial condition and results of operations.

Our failure to comply with applicable regulatory requirements could result in enforcement action by the FDA or state agencies, which may include any of the following actions:

- untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- removal from FDA's Voluntary Improvement Program pilot;
- unanticipated expenditures to address or defend such actions;
- form 483s, or other compliance or enforcement notices, communications or correspondence, including customer notifications for repair, replacement or refunds;
- recall, detention or seizure of our RNS System;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying our requests for 510(k) clearance or PMA of new products or modified products;
- operating restrictions;
- seizure or detention of products;
- withdrawing 510(k) clearances or PMAs that have already been granted;
- refusal to grant export approval for our RNS System;
- criminal prosecution; or
- civil penalties.

If any of these events were to occur, it would have a negative impact on our business, financial condition and results of operations.

The FDA also regulates the advertising and promotion of our RNS System to ensure that the claims we make are consistent with our regulatory clearances and approvals, that there are adequate and reasonable data to substantiate the claims and that our promotional labeling and advertising is neither false nor misleading in any respect. If the FDA 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. Additionally, our manufacturing facility is required to comply with extensive requirements imposed by the FDA, including ensuring that quality control and manufacturing procedures conform to the QSR. As such, we will be subject to continual review and inspections to assess compliance with the QSR and adherence to commitments made in any 510(k) or PMA application.

The 510(k) or PMA process can be expensive, lengthy and unpredictable and we will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control. We may not be able to obtain necessary clearances or approvals or may be unduly delayed in doing so, which would negatively affect our business, financial condition and results of operations. 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 PMA approval to market our RNS System, our approval can be revoked if safety or efficacy problems develop.

Our operations are subject to pervasive and continuing FDA regulatory requirements, and failure to comply with these requirements could harm our business, financial condition and results of operations.

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 PMA from the FDA, unless an exemption applies. In the 510(k) clearance process, before a device may be marketed, the FDA must determine that a proposed device is substantially equivalent to a legally-marketed predicate device, which includes a device that has been previously cleared through the 510(k) process, a device that was legally marketed prior to May 28, 1976 (pre-amendments device), a device that was originally on the U.S. market pursuant to an approved PMA and later down-classified, or a 510(k)-exempt device.

In the process of obtaining PMA approval, which was required for our RNS System, the FDA must determine that a proposed device is safe and effective for its intended use based, in part, on extensive data, including, but not limited to, technical, preclinical, clinical study, manufacturing and labeling data. The PMA process is typically required for devices that are deemed to pose the greatest risk, such as life-sustaining, life-supporting or implantable device

The FDA and state and international authorities have broad enforcement powers. The medical device industry is now experiencing greater scrutiny and regulation by federal, state and foreign governmental authorities. Companies in our industry are subject to more frequent and more intensive reviews and investigations, often involving the marketing, business practices and product quality management. Such reviews and investigations may result in: civil and criminal proceedings; the imposition of substantial fines and penalties; the receipt of warning letters, untitled letters, demands for recalls or the seizure of our products; the requirement to enter into corporate integrity agreements, stipulated judgments or other administrative remedies; and result in our incurring substantial unanticipated costs and the diversion of key personnel and management's attention from their regular duties, any of which may harm our business, financial condition and results of operations, and may result in greater and continuing governmental scrutiny of our business in the future.

Additionally, federal, state and foreign governments and entities have enacted laws and issued regulations and other standards requiring increased visibility and transparency of interactions with healthcare providers. For example, Open Payments requires us to annually report to CMS payments and other transfers of value to U.S. physicians and certain other clinicians and U.S. teaching hospitals, with the reported information made publicly available on a searchable website. Failure to comply with these legal and regulatory requirements could impact our business, and we have had and will continue to spend substantial time and financial resources to develop and implement enhanced structures, policies, systems and processes to comply with these legal and regulatory requirements, which could harm our business, financial condition and results of operations.

Modifications to our products may require new 510(k) clearances or pre-market approvals or may require us to recall or cease marketing our products until clearances or approvals are obtained, which could harm our business, financial condition and results of operations.

In the United States, our RNS System is marketed pursuant to a PMA order issued by the FDA. Any modifications to a PMA-approved device that could significantly affect its safety or effectiveness, including significant design and manufacturing changes, or that would constitute a major change in its intended use, manufacture, design, components, or technology requires approval of a new PMA application or PMA supplement. However, certain changes to a PMA-approved device do not require submission and approval of a new PMA or PMA supplement and may only require notice to FDA in a PMA 30-Day Notice, Special PMA Supplement - Changes Being Effectuated or PMA Annual Report. The FDA requires every manufacturer to make this determination in the first instance, but the FDA may review any manufacturer's decision. The FDA may not agree with our decisions regarding whether new approvals are necessary. If the FDA disagrees with our determination and requires us to seek new PMA approvals for modifications to our previously approved products for which we have concluded

that new approvals are unnecessary, we may be required to cease marketing or to recall the modified product until we obtain clearance or approval, and we may be subject to significant regulatory fines or penalties.

For products that have received 510(k) clearance, such as our Burr Hole Cover product, modifications that could significantly affect safety and effectiveness, such as changes to the intended use or technological characteristics, may require new 510(k) clearances or PMAs 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, supplemental approval or clearance; however, the FDA can review a manufacturer's decision. Any modification to an FDA-cleared device that could 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 if such modification put the device into Class III, possibly a PMA. We may not be able to obtain additional 510(k) clearances or PMAs for new products or for modifications to, or additional indications for, our products in a timely fashion, or at all. Delays in obtaining required future clearances or approvals would adversely affect 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 our RNS System in the past and expect to make additional modifications in the future that we believe do not or will not require additional clearances or approvals. If the FDA disagrees and requires new clearances or approvals for these modifications, we may be required to recall and to stop selling or marketing such products as modified, which could harm our operating results and require us to redesign such products. In these circumstances, we may be subject to significant enforcement actions. The FDA may also change its clearance and approval policies, adopt additional regulations or revise existing regulations, or take other actions which may impact our ability to modify our currently approved or cleared products on a timely basis. Any of these actions could harm our business, financial condition and results of operations.

Our products may be subject to recalls after receiving FDA approval or clearance, which could divert managerial and financial resources, harm our reputation and our business.

The FDA has the authority to require the recall of our products because of any failure to comply with applicable laws and regulations, or defects in design or manufacture. A government mandated or voluntary product recall by us could occur because of, for example, component failures, device malfunctions or other adverse events, such as serious injuries or deaths, or quality-related issues, such as manufacturing errors or design or labeling defects. Any future recalls of our products could divert managerial and financial resources, harm our reputation and negatively impact our business.

If we initiate a correction or removal of one of our products to reduce a risk to health posed by the device, 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 and our customers regarding the quality and safety of our products. Furthermore, the submission of these reports has been and could be used by competitors against us and could harm our reputation, which could cause customers to delay purchase decisions, cancel orders or decide not to purchase our products and could cause patients to lose trust in and decide not to implant our RNS System.

If any of our products cause or contribute to a death or a serious injury or malfunction in certain ways, we will be required to report under applicable medical device reporting regulations, or MDRs, which can result in voluntary corrective actions or agency enforcement actions and harm our reputation, business, financial condition and results of operations.

Under MDRs, medical device manufacturers are required to report to the FDA information that a device has or may have caused or contributed to a death or serious injury or has malfunctioned in a way that would likely cause or contribute to death or serious injury if the malfunction of the device or one of our similar devices were to recur. If we fail to report events required to be reported to the FDA within the required timeframes, or at all, the FDA could take enforcement action and impose sanctions against us. Any such adverse event involving our products also could result in future voluntary corrective actions, such as recalls or customer notifications, or agency action, such as inspection or enforcement action. Any corrective action, whether voluntary or involuntary, as well as defending

ourselves in a lawsuit, would be costly, distract management from operating our business, could be used by competitors against us, and may harm our reputation, business, financial condition and results of operations.

From time to time, we engage outside parties to perform services related to certain of our clinical studies. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to complete our clinical studies on our planned timelines, or at all, and may incur significant additional costs.

From time to time, we engage consultants to help design, monitor and analyze the results of certain of our clinical studies and trials. The consultants we engage may interact with clinical investigators to enroll patients in our clinical studies. We depend on these consultants and clinical investigators to conduct clinical studies and trials and monitor and analyze data from these studies and trials under the investigational plan and protocol for the study or trial and in compliance with applicable regulations and standards, such as the FDA's Good Clinical Practice, or GCP, guidelines and FDA human subject protection regulations. We may face delays in completing our clinical studies if these parties do not perform their obligations in a timely, compliant or competent manner. If these third parties do not successfully carry out their duties or meet expected deadlines, or if the quality, completeness or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical study protocols or for other reasons, our clinical studies or trials may need to be extended, delayed or terminated or may otherwise prove to be unsuccessful, and we may have to conduct additional studies, which would significantly increase our costs.

Healthcare reform initiatives and other administrative and legislative proposals may harm our business, financial condition, results of operations and cash flows in our key markets.

There have been and continue to be proposals by the federal government, state governments, regulators and third-party payors to control or manage the increased costs of healthcare and, more generally, to reform the U.S. healthcare system. Certain of these proposals could limit the prices we are able to charge for our products or the coverage and reimbursement available for our products and could limit the acceptance and availability of our products. The adoption of proposals to control costs could harm our business, financial condition and results of operations.

There likely will continue to be legislative and regulatory proposals at the federal and state levels directed at containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future or their full impact. 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 products;
- our ability to generate revenue and achieve or maintain profitability; and
- the availability of capital.

Further, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several U.S. Congressional inquiries and proposed and enacted federal legislation designed to bring transparency to product pricing and reduce the cost of products and services under government healthcare programs. Additionally, individual states in the United States have also increasingly passed legislation and implemented regulations designed to control product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures. Moreover, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what products to purchase and which suppliers will be included in their healthcare programs. Adoption of price controls and other cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures may prevent or limit our ability to generate revenue and attain profitability.

Various new healthcare reform proposals are emerging at the federal and state level. It is also possible that additional governmental action will be taken in response to the COVID-19 pandemic. Any new federal and state healthcare initiatives that may be adopted could limit the amounts that federal and state governments will pay for healthcare products and services, and could harm our business, financial condition and results of operations.

Our collection, use, storage, disclosure, transfer and other processing of sensitive and personal information could give rise to significant costs, liabilities and other risks, including as a result of investigations, inquiries, litigation, fines, legislative and regulatory action and negative press about our privacy and data protection practices, which may harm our business, financial conditions, results of operations and prospects.

In the course of our operations, we collect, use, store, disclose, transfer and otherwise process an increasing volume of sensitive, and personal information, including detailed recordings of iEEGs from patients as well as information from our employees and third parties with whom we conduct business. The collection, use, storage, disclosure, transfer and other processing of personal information is increasingly subject to a wide array of federal, state and foreign laws, rules, regulations, and standards regarding data privacy and security, including comprehensive laws of broad application, such as the CCPA and the GDPR, that are intended to protect the privacy of personal information that is collected, used, stored, disclosed, transferred or otherwise processed in or from the governing jurisdiction. As we seek to expand our business, we are, and may increasingly become, subject to various laws, rules, regulations and standards, as well as contractual obligations, relating to data privacy and security in the jurisdictions in which we operate or in the jurisdictions where our patients may be. When conducting clinical studies, we face risks associated with collecting trial participants' data, especially health data, in a manner consistent with applicable laws and regulations, such as GCP guidelines or FDA human subject protection regulations.

In many cases, these laws, rules, regulations and standards apply not only to third-party transactions, but also to transfers of information between or among us, any of our affiliates and other parties with whom we conduct business. These laws, rules, regulations and standards may be interpreted and applied differently over time and from jurisdiction to jurisdiction, and it is possible that they will be interpreted and applied in ways that may harm our business, financial condition and results of operations. The regulatory framework for data privacy and security worldwide is continuously evolving and developing and, as a result, interpretation and implementation standards and enforcement practices are likely to remain uncertain for the foreseeable future.

We are subject to many diverse laws and regulations relating to data privacy and security. In the United States, various federal and state regulators have adopted, or are considering adopting, laws and regulations concerning personal information and data security. Additionally, our customers may be subject to additional federal and state privacy and security laws, rules, regulations and standards, including HIPAA, that they may require us to comply with through contractual obligations. This patchwork of legislation and regulation may give rise to conflicts or differing views of personal privacy rights. For example, certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, foreign or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. Additionally, new privacy rules are being enacted in the United States and globally, and existing ones are being updated and strengthened. For example, the CCPA, which became effective on January 1, 2020, regulates the processing of personal information of California residents and increases the privacy and security obligations of covered companies handling such personal information. The CCPA requires covered companies to, amongst other things, provide new and additional disclosures to California consumers and provide such consumers new data protection and privacy rights, including the ability to access their personal information and opt out of certain sales of personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches that result in the loss of personal information. This private right of action may increase the likelihood of, and risks associated with, data breach litigation. The CCPA was amended in September 2018 and November 2019, and it is possible that further amendments will be enacted, but even in its current form it remains unclear how various provisions of the CCPA will be interpreted and enforced. Moreover, a new privacy law, the California Privacy Rights Act, or the CPRA – a consumer privacy ballot initiative that amends and expands the CCPA – was recently passed. The CPRA affords California residents significantly more control over their personal information, imposes heightened compliance obligations on covered companies, and establishes a new enforcement agency dedicated to consumer privacy. The CPRA's substantive provisions become effective January 1, 2023, and new regulations are expected to be introduced by July 1, 2022. While aspects of the CPRA and its interpretation remain to be determined in practice, they create further uncertainty and may result in additional costs and expenses in an effort to comply. Further, all 50 states have passed laws regulating the actions that a business must take if it experiences a data breach, such as prompt disclosure to affected customers. In addition to data breach notification laws, some states have enacted statutes and rules requiring businesses to reasonably protect certain types of personal information they hold

or to otherwise comply with certain specified data security requirements for personal information. We are also subject to the supervisory and enforcement authority of the Federal Trade Commission with regard to the collection, use, sharing, and disclosure of certain data collected from or about individuals. State laws are changing rapidly and there is discussion in Congress of a new federal data protection and privacy law to which we would become subject if it is enacted. All of these evolving compliance and operational requirements impose significant costs that are likely to increase over time, may require us to modify our data processing practices and policies, divert resources from other initiatives and projects, and could restrict the way products and services involving data are offered, all of which may harm our business, financial condition and results of operations.

In the event we expand our operations internationally, we may become subject to additional foreign data privacy and security laws, rules, regulations, requirements, and standards, which in the European Union, for instance, have been significantly reformed. On May 25, 2018, the GDPR entered into force and became directly applicable in all European Union member states. The GDPR implements more stringent operational requirements than its predecessor legislation. For example, the GDPR requires companies to make more detailed disclosures to data subjects, requires disclosure of the legal basis on which companies can process personal data, makes it harder for companies to obtain valid consent for processing, requires the appointment of data protection officers when sensitive personal data, such as health data, is processed on a large scale, provides more robust rights for data subjects, introduces mandatory data breach notification through the European Union, imposes additional obligations on companies when contracting with service providers and requires companies to adopt appropriate privacy governance including policies, procedures, training and data audits. The GDPR permits data protection authorities to impose large penalties for violations of the GDPR, including potential fines of up to €20 million or four percent of annual global revenues, whichever is greater. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. If we become subject to the GDPR and do not comply with our obligations under the GDPR, we could be exposed to significant fines. Compliance with the GDPR will be a rigorous and time-intensive process that may increase our cost of doing business or require us to change our business practices, and despite those efforts, there is a risk that we may be subject to fines and penalties, litigation, and reputational harm in connection with our European activities. In addition, we may be the subject of litigation or adverse publicity, which could negatively affect our business, financial condition and results of operations.

We expect that there will continue to be new proposed laws and regulations concerning data privacy and security, and we cannot yet determine the impact such future laws, rules, regulations and standards may have on our business. New laws, amendments to or re-interpretations of existing laws, regulations, standards and other obligations may require us to incur additional costs and restrict our business operations. Because the interpretation, scope, and application of laws, regulations, standards and other obligations relating to data privacy and security are still uncertain, it is possible that these laws, regulations, standards and other obligations may be interpreted and applied in a manner that is inconsistent with our data processing practices and policies or the features of our products and services. If so, in addition to the possibility of fines, lawsuits, regulatory investigations, public censure, other claims and penalties, and significant costs for remediation and damage to our reputation, we could be materially and adversely affected if legislation or regulations are expanded to require changes in our data processing practices and policies or if governing jurisdictions interpret or implement their legislation or regulations in ways that negatively impact our business, financial condition and results of operations. We may be unable to make such changes and modifications in a commercially reasonable manner, or at all. In addition to government regulation, privacy advocates and industry groups have and may in the future propose self-regulatory standards from time to time. These and other industry standards may legally or contractually apply to us, or we may elect to comply with such standards. Any inability to adequately address data privacy or security-related concerns, even if unfounded, or to comply with applicable laws, regulations, standards and other obligations relating to data privacy and security, could result in additional cost and liability to us, harm our reputation and brand, damage our relationships with consumers and harm our business, financial condition and results of operations.

We make public statements about our use and disclosure of personal information through our privacy policies, information provided on our website and press statements. Although we endeavor to comply with our public statements and documentation, we may at times fail to do so or be alleged to have failed to do so. The publication of

our privacy policies and other statements that provide promises and assurances about data privacy and security can subject us to potential government or legal action if they are found to be deceptive, unfair or misrepresentative of our actual practices. Any concerns about our data privacy and security practices, even if unfounded, could damage the reputation of our business and harm our business, financial condition and results of operations.

Complying with these numerous, complex and often changing laws, rules, regulations, and standards is expensive and difficult. Any failure or perceived failure by us or our service providers to comply with our posted privacy policies or with any applicable or potentially applicable federal or state laws, rules, regulations, standards, certifications or orders relating to data privacy, security or consumer protection, or any compromise of security that results in the theft, unauthorized access, acquisition, use, disclosure, or misappropriation of personal information or other user data, could result in significant fines or penalties, negative publicity or proceedings or litigation by governmental agencies or consumers, including class action privacy litigation in certain jurisdictions, which would subject us to significant awards, penalties or judgments, one or all of which could require us to change our business practices or increase our costs and could materially and adversely affect our business, financial condition and results of operations. In addition, if our practices are not consistent, or viewed as not consistent, with applicable legal and regulatory requirements, including changes in laws, regulations and standards or new interpretations or applications of existing laws, regulations and standards, we may also become subject to audits, inquiries, whistleblower complaints, adverse media coverage, investigations, criminal or civil sanctions, all of which may harm our business, financial condition and results of operations.

Significant disruptions in our information technology systems, whether through breaches or failures of our systems, unauthorized access or otherwise, may result in both an adverse impact to our products, as well as the unauthorized use, disclosure, modification or misappropriation of patient personal information, the occurrence of fraudulent activity, or other data security-related incidents, all of which could have a material and adverse impact on our business, financial condition and results of operations.

We are increasingly dependent on complex information technology systems for the efficient functioning of our business, including the manufacture, distribution and maintenance of our products, as well as for accounting, data storage, compliance, purchasing and inventory management purposes. Further, our products collect, use, store, disclose, transfer, and otherwise process sensitive patient data, such as detailed recordings of iEEGs to help clinicians make more informed treatment decisions and optimize their patients' care. These data are recorded by our RNS System and can be viewed by the physician during regular patient visits using the Physician Tablet or on demand through a secure website. We also collect, use, store, disclose, transfer, and otherwise process a growing volume of other personal information and confidential, proprietary and sensitive data, which may include procedure-based information and sensitive healthcare data, credit card, and other financial information, insurance information, and other potentially personally identifiable information. Our information technology systems or those of our service providers may be subject to computer viruses, phishing, social engineering, denial or degradation of service attacks, ransomware, malware attacks or other threats, cyberattacks, or dishonest acts by computer hackers or terrorists, failures during the process of upgrading or replacing software, databases or components thereof, power outages, damage or interruption from fires or other natural disasters, hardware failures, telecommunication failures and user errors, among other malfunctions. Technological interruptions or threats would disrupt our operations, including the ability of our clinicians to use our products as intended to treat patients, the ability of patients to safely and securely upload their data using and into our products, as well as our ability to adequately manufacture our products, timely ship and track product orders, project inventory requirements, manage our supply chain and otherwise adequately service our customers. Additionally, any of these incidents could result in the theft, unauthorized access, acquisition, use, disclosure, modification, or misappropriation of personal information of patients that use our products, trial participants, employees, third parties with whom we conduct business, as well as other confidential, proprietary, and sensitive data, and can also result in fraudulent activity, system disruptions or shutdowns.

The occurrence of any actual or attempted breach, failure of security or fraudulent activity, the reporting of such an incident, whether accurate or not, or our failure to make adequate or timely disclosures to the public or law enforcement agencies following any such event, whether due to delayed discovery or a failure to follow existing protocols, could result in claims made against us or our service providers, which could result in state and/or federal litigation and related financial liabilities, as well as criminal penalties or civil liabilities, regulatory actions from state and/or federal governmental authorities, and significant fines, orders, sanctions, litigation and claims against us by

consumers or third parties and related indemnification obligations. Actual or perceived security breaches or failures could also cause financial losses, increased costs, interruptions in the operations of our businesses, misappropriation of assets, significant damage to our brand and reputation with customers, patients, employees, and third parties with whom we do business, and result in adverse publicity, loss of consumer confidence, distraction to our management, and reduced sales and profits, any or all of which could harm our business, financial condition and results of operations.

Our systems are also subject to compromise from internal threats, such as theft, misuse, unauthorized access or other improper actions by employees, service providers and other third parties with otherwise legitimate access to our systems and website. Data security-related incidents and fraudulent activity are increasing in frequency and evolving in nature. We rely on a framework of security processes, procedures, tools, and controls designed to protect our information and assets but, given the unpredictability of the timing, nature and scope of data security-related incidents and fraudulent activity, there can be no assurance that any security procedures and controls that we or our service providers have implemented will be sufficient to prevent data security-related incidents or other fraudulent activity from occurring. Furthermore, because the methods of attack and deception change frequently, are increasingly complex and sophisticated, and can originate from a wide variety of sources, including third parties such as service providers and even nation-state actors, despite our reasonable efforts to ensure the integrity of our systems and website, it is possible that we may not be able to anticipate, detect, appropriately react and respond to, or implement effective preventative measures against, all security breaches and failures and fraudulent activity. In the event we experience significant disruptions, we may be unable to repair our systems in an efficient and timely manner.

We also face risks associated with security breaches affecting third parties with whom we are affiliated or otherwise conduct business. Due to applicable laws and regulations or contractual obligations, we may be held responsible for any breach, failure or fraudulent activity attributed to our service providers as they relate to the information we share with them. In addition, while we take precautions in selecting service providers, because we do not control our service providers and our ability to monitor their data security is limited, we cannot ensure the security measures they take will be sufficient to protect our information. Any of the foregoing could harm our business, financial condition and results of operations.

As data security-related threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities, or to protect against, respond to and recover from any potential, attempted, or existing security breaches. In addition, our remediation efforts may not be successful. The inability to implement, maintain and upgrade adequate safeguards could have a material and adverse impact on our business, financial condition and results of operations. Moreover, there could be public announcements regarding any data security-related incidents and any steps we take to respond to or remediate such incidents, and if securities analysts or investors perceive these announcements to be negative, it could, among other things, have a substantial adverse effect on the price of our common stock. Any of the foregoing could harm our business, financial condition and results of operations.

We currently maintain a cybersecurity insurance policy and business interruption coverage to mitigate certain potential losses but this insurance is limited in amount, and we cannot be certain that such potential losses will not exceed our policy limits, or will cover all potential claims to which we are exposed and may not be adequate to indemnify us for all liability that may be imposed. Therefore, failure to maintain or protect our information systems and data integrity effectively could harm our business, financial condition, and results of operations.

We face potential liability related to the privacy of health information we obtain.

We may maintain, use, and share sensitive health information that we receive directly from patients that use our products, throughout the clinical study process, in the course of our research collaborations, and from healthcare providers in the course of using our products and systems. Most healthcare providers, including hospitals from which we obtain patient health information, are subject to privacy and security regulations promulgated under HIPAA, as amended by the HITECH. We are not currently classified as a covered entity or business associate under HIPAA and thus are not subject to its requirements or penalties. However, any person may be prosecuted under HIPAA's criminal provisions either directly or under aiding-and-abetting or conspiracy principles. Consequently,

depending on the facts and circumstances, we could face substantial criminal penalties if we knowingly receive, maintain, use, or transfer individually identifiable health information from a HIPAA-covered healthcare provider or research institution that has not satisfied HIPAA's requirements for disclosure of individually identifiable health information. Furthermore, certain health privacy laws, data breach notification laws, consumer protection laws and genetic testing laws may apply directly to our operations or those of our collaborators and may impose restrictions on our collection, use and dissemination of individuals' health information. As such, we may be subject to state laws requiring notification of affected individuals and state regulators in the event of a breach of personal information, including certain health information, which is a broader class of information than the health information protected by HIPAA. To the extent we engage in clinical studies outside the United States, we may implicate foreign data privacy and security laws and regulations, including the GDPR and legislation of the European Union member states implementing it.

If we do business in international markets in the future, any failure by us or our third-party contractors to comply with the strict rules on the transfer of personal data outside of the European Union and the United Kingdom into the United States in accordance with such laws and regulations may result in the imposition of criminal and administrative sanctions on such contractors, which could adversely affect our business.

Moreover, patients about whom we or our contractors or collaborators obtain or share health information, as well as the providers who share this information with us or whom we share this data with, may have statutory or contractual rights that limit our ability to use and disclose the information. We may be required to expend significant capital and other resources to ensure ongoing compliance with applicable privacy and data security laws. Claims that we have violated individuals' privacy rights or breached our contractual obligations, even if we are not found liable, could be expensive and time consuming to defend and could result in adverse publicity that could negatively affect our business, financial condition and results of operations. If we or third-party contractors or consultants fail to comply with applicable federal, state or local regulatory requirements, we could be subject to a range of regulatory actions that could affect our or our contractors' ability to develop and commercialize our products and could harm or prevent sales of our products, or could substantially increase the costs and expenses of developing, commercializing and marketing our products. Any threatened or actual government enforcement action could also generate adverse publicity and require that we devote substantial resources that could otherwise be used in other aspects of our business.

Additionally, data collection, privacy and security have become the subject of increasing public concern and changing preferences towards data collection, privacy and security could adversely affect patient willingness to consent to our collection of their health information. Patients may be reluctant or unwilling to consent to the collecting of their health information, and patients that have opted-in to the collection of their health information may revoke their consent at any time, including as a result of these concerns or as a result of changes to our data policies that we have implemented or may implement in the future. In particular, the success of our business depends in part on our ability to lawfully obtain health information from our patients. If patients choose not to consent to the collection of their health information as a result of these concerns, or our consent practices are found to be unlawful, this could negatively impact the growth potential for our business.

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

Our research, development and manufacturing operations involve the use of hazardous substances, and we are subject to a variety of federal, state and local environmental laws and regulations relating to the storage, use, handling, generation, manufacture, treatment, discharge and disposal of hazardous substances. Our products may also contain hazardous substances, and they are subject laws and regulations relating to labeling requirements and to their sale, collection, recycling, treatment, storage and disposal. Compliance with these laws and regulations may be expensive and noncompliance could result in substantial fines and penalties. Environmental laws and regulations also impose liability for the remediation of releases of hazardous substances into the environment and for personal injuries resulting from exposure to hazardous substances, and they can give rise to substantial remediation costs and to third-party claims, including for property damage and personal injury. Liability under environmental laws and regulations can be joint and several and without regard to fault or negligence, and they tend to become more stringent over time, imposing greater compliance costs and increased risks and penalties associated with violations.

We cannot be certain that violations of these laws and regulations, or releases of or exposure to hazardous substances, will not occur in the future or have not occurred in the past, including as a result of human error, accidents, equipment failure or other causes. The costs of complying with environmental laws and regulations, and liabilities that may be imposed for violating them, or for remediation obligations or responding to third-party claims, could negatively affect our business, financial condition and results of operations.

Future clinical studies may be delayed, suspended or terminated for many reasons, which will increase our expenses and delay the time it takes to support label expansion for additional indications.

We plan to continue to develop and execute clinical studies to support label retention for our products and label expansion for our products into additional epilepsy populations. We may also develop and execute clinical studies for new products or for label expansion for our current products into patient populations suffering from other neurologic conditions. We do not know whether future clinical studies will begin on time, need to be redesigned, enroll an adequate number of patients or be completed on schedule, if at all. The commencement and completion of clinical studies to support label retention and expansion for additional indications or for new products may be delayed, suspended or terminated as a result of many factors, including:

- the delay or refusal of regulators or Institutional Review Boards, or IRBs, to authorize us to commence a clinical study at a prospective trial site;
- changes in regulatory requirements, policies and guidelines;
- delays or failure to reach agreement on acceptable terms with prospective clinical research organizations, or CROs, and clinical study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- delays in patient enrollment and variability in the number and types of patients available for clinical studies, including due to COVID-19, and delays in or the inability to monitor enrolled patients, including due to COVID-19;
- the inability to enroll a sufficient number of patients in studies to observe statistically significant treatment effects in the trial;
- having clinical sites deviate from the trial protocol or dropping out of a study;
- safety or tolerability concerns that could cause us to suspend or terminate a trial if we find that the participants are being exposed to unacceptable health risks;
- regulators or IRBs requiring that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or safety concerns, among others;
- lower than anticipated retention rates of patients and volunteers in clinical studies;
- our CROs or clinical studies sites failing to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, deviating from the protocol or dropping out of a trial;
- delays relating to adding new clinical study sites; and
- exceeding budgeted costs due to difficulty in accurately predicting costs associated with clinical studies.

We could also encounter delays if a clinical study is suspended or terminated by us, by the IRBs or the Ethics Committees of institutions at which such studies are being conducted, by the Data Safety Monitoring Board for such trial or by the FDA or other regulatory authorities. Such authorities may suspend or terminate a clinical study due to a number of factors, including failure to conduct the clinical study in accordance with regulatory requirements, including GCP regulations, or our clinical protocols, inspection of the clinical study operations or trial site by the FDA resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to

demonstrate safety and effectiveness, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical study.

In addition, we may encounter delays if the FDA concludes that our financial relationships with investigators result in a perceived or actual conflict of interest that may have affected the interpretation of a study, the integrity of the data generated at the applicable clinical study site or the utility of the clinical study itself. Principal investigators for our clinical studies may serve as scientific advisors or consultants to us from time to time and receive cash compensation and/or stock options in connection with such services. If these relationships and any related compensation to or ownership interest by the clinical investigator carrying out the study result in perceived or actual conflicts of interest, or if the FDA concludes that the financial relationship may have affected interpretation of the study, the integrity of the data generated at the applicable clinical study site may be questioned and the utility of the clinical study itself may be jeopardized, which could result in the delay or rejection by the FDA. Any such delay or rejection could prevent us from supporting label retention and expansion for our RNS System.

Risks related to our intellectual property

If we are unable to obtain, maintain, protect, enforce and defend patent or other intellectual property protection for our products, or if the scope of the patent and other intellectual property protection obtained is not sufficiently broad, or as a result of our existing or any future out-licenses of our intellectual property, our competitors could develop and commercialize products similar to or competitive with our products, our ability to continue to commercialize our RNS System, or our other products, may be harmed.

As with other medical device companies, our success depends in large part on our ability to obtain, maintain, protect, enforce and defend a proprietary position for our products, which will depend upon our success in obtaining and maintaining effective patent and other intellectual property protection in the United States and other countries into which we may expand our business in the future that covers our RNS System and any other products, their manufacturing processes and their intended methods of use. Furthermore, our success will also depend on our ability to enforce and defend those patents, as well as our other intellectual property. In some cases, we may not be able to obtain patents covering our products which are sufficient to prevent third parties, such as our competitors, from utilizing our products, or our competitors may have rights under current or future out-licenses of our intellectual property, which could result in our competitors developing and commercializing products similar to or competitive with our products. Any failure to obtain, maintain, protect, enforce or defend patent and other intellectual property protection with respect to our RNS System or other aspects of our business could harm our business, competitive position, financial condition and results of operations.

Changes in either the patent laws or their interpretation in the United States and other countries may diminish our ability to protect our inventions, obtain, maintain, protect, enforce, and defend our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our patents. Additionally, we cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection from competitors or other third parties.

The patent prosecution process 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 or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output in time to obtain patent protection in one, several, or all geographies. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, suppliers, consultants, advisors and other third parties, any of these parties may breach the agreements and disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our inventions and the prior art allow our inventions to be patentable over the prior art. Furthermore, the publication of discoveries in scientific literature often lags behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. As such, we cannot be certain that we were the first to make the inventions claimed in any of our patents or pending

patent applications, or that we were the first to file for patent protection of such inventions. Moreover, in some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from or license to third parties, including by way of our cross-license with Medtronic, and we are therefore reliant on our licensors or licensees. Therefore, these and any of our patents and patent applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. Furthermore, our license agreements may be terminated by the licensor. Defects of form in the preparation or filing of our patents or patent applications may exist, or may arise in the future, for example, with respect to proper priority claims, inventorship and the like, although we are unaware of any such defects that we believe are of importance. If we or any of our current or future licensors or licensees fail to obtain, maintain, protect, enforce or defend such patents and other intellectual property rights, such rights may be reduced or eliminated. If any of our current or future licensors or licensees are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised. If there are material defects in the form, preparation or prosecution of our patents or patent applications, such patents or applications may be invalid and unenforceable. Any of these outcomes could impair our ability to prevent competition from third parties, which may harm our business.

The strength of patent rights generally, and particularly the patent position of medical device companies, involves complex legal and scientific questions, can be uncertain, and has been the subject of much litigation in recent years. This uncertainty includes changes to the patent laws through either legislative action to change statutory patent law or court action that may reinterpret existing law or rules in ways affecting the scope or validity of issued patents. Our current or future patent applications may fail to result in issued patents in the United States or foreign countries with claims that cover our products, including our RNS System. Even if patents do successfully issue from our patent applications, third parties may challenge the validity, enforceability or scope of such patents, which may result in such patents being narrowed, invalidated or held unenforceable. Any successful challenge to our patents could deprive us of exclusive rights necessary for the successful commercialization of our products, including our RNS System. Furthermore, even if they are unchallenged, our patents may not adequately protect our RNS System or any other products we develop, provide exclusivity for these products or prevent others from designing around our claims. If the scope of any patent protection we obtain is not sufficiently broad, or if we lose any of our patent protection, our ability to prevent our competitors from commercializing similar or identical products could be adversely affected. If the breadth or strength of protection provided by the patents we hold or pursue with respect to our products is challenged, it could dissuade companies from collaborating with us to develop, or threaten our ability to commercialize, our products.

Patents have a limited lifespan. In the United States, the natural expiration of a utility patent is generally 20 years after its effective filing date and the natural expiration of a design patent is generally 14 years after its issue date, unless the filing date occurred on or after May 13, 2015, in which case the natural expiration of a design patent is generally 15 years after its issue date. However, the actual protection afforded by a patent varies from country to country, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of regulatory-related extensions, the availability of legal remedies in a particular country and the validity and enforceability of the patent. Various extensions may be available; however, the life of a patent, and the protection it affords, is limited. Without patent protection for our products, we may be open to competition. Further, if we encounter delays in our development efforts, the period of time during which we could market our products under patent protection would be reduced and, given the amount of time required for the development, testing and regulatory review of planned or future products, patents protecting such products might expire before or shortly after such products are commercialized. For information regarding the expiration dates of patents in our patent portfolio, see “Business—Intellectual Property.” Our issued patents are expected to expire between April 2021 and August 2038 without taking into account all possible patent term adjustments, extensions, or abandonments, and assuming payment of all appropriate maintenance, renewal, annuity, and other governmental fees. As our patents expire, the scope of our patent protection will be reduced, which may reduce or eliminate any competitive advantage afforded by our patent portfolio. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

Moreover, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if patent applications we license or own, currently or in the

future, issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents that we own may be challenged, narrowed, circumvented or invalidated by third parties. Consequently, we do not know whether our RNS System or our other products will be protectable or remain protected by valid and enforceable patents. Our competitors or other third parties may be able to circumvent our patents by developing similar or alternative products in a non-infringing manner, which could harm our business, financial condition and results of operations.

Some of our patents and patent applications may be co-owned or cross-licensed with third parties. If we give up, do not pursue, or are unable to obtain an exclusive license to any such third-party co-owners' or licensee's interest in such patents or patent applications, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we may need the cooperation of any such co-owners of our patents in order to enforce such patents against third parties, and such cooperation may not be provided to us. Any of the foregoing could harm our business, financial condition and results of operations.

We may not be successful in obtaining necessary rights to any products or processes we may develop through acquisitions and in-licenses.

We may find it necessary or prudent to acquire or obtain licenses to intellectual property or proprietary rights held by third parties that we may identify as necessary or important to our business operations. However, we may be unable to acquire or secure such licenses to any intellectual property or proprietary rights from third parties that we identify as necessary for our RNS System or any future products we may develop. The acquisition or licensing of third-party intellectual property or proprietary rights is a competitive area, and our competitors may pursue strategies to acquire or license third party intellectual property or proprietary rights that we may consider attractive or necessary. Our competitors may have a competitive advantage over us due to their size, capital resources and greater development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to acquire or license third party intellectual property or proprietary rights on terms that would allow us to make an appropriate return on our investment or at all. If we are unable to successfully acquire or license required third-party intellectual property or proprietary rights or maintain the existing licenses to intellectual property rights we have, we may have to abandon development of the relevant product, which could harm our business, financial condition and results of operations.

Patents covering our products, including our RNS System could be found invalid or unenforceable if challenged in court or before administrative bodies in the United States or abroad, which could harm our business, financial condition and results of operations.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. We may be subject to a third-party preissuance submission of prior art to the U.S. Patent and Trademark Office, or the USPTO, or become involved in opposition, derivation, revocation, reexamination, post-grant and inter partes review, or IPR, or interference proceedings or other similar proceedings challenging our patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, such patent rights, allow third parties to commercialize our products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, we may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge our priority of invention or other features of patentability with respect to our patents and patent applications. Such challenges may result in loss of patent rights, in loss of exclusivity, or in patent claims being narrowed, invalidated or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical products or limit the duration of the patent protection of our products. Such proceedings also may result in substantial cost and require significant time from our management, even if the eventual outcome is favorable to us.

In addition, if we initiate legal proceedings against a third party to enforce a patent covering our products, the defendant could counterclaim that such patent is invalid or unenforceable. In patent litigation in the United States,

defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO or made a misleading statement during prosecution. Defenses of these types of claims, regardless of their merit, would involve substantial litigation expense, would result in reputational harm, and would be a substantial diversion of employee resources from our business. Third parties may also raise claims challenging the validity or enforceability of our patents before administrative bodies in the United States or abroad, even outside the context of litigation, including through re-examination, post-grant review, IPR, interference proceedings, derivation proceedings and equivalent proceedings in foreign jurisdictions (such as opposition proceedings). Such proceedings could result in the revocation of, cancellation of or amendment to our patents in such a way that they no longer cover our products. The outcome for any particular patent following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant or other third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection for the patents raised in such a claim. Such a loss of patent protection would harm our business, financial condition and results of operations.

The medical device industry is characterized by patent litigation and in the future we could become subject to patent or other intellectual property litigation that could be costly, result in the diversion of management's time and efforts, require us to pay damages or prevent us from marketing our existing or future products.

Patent litigation is prevalent in the medical device and diagnostic sectors. Our commercial success depends in part upon our ability and that of our suppliers to manufacture, market, sell, and use our proprietary products without infringing, misappropriating or otherwise violating the intellectual property or proprietary rights of third parties. We may in the future become party to, or be threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our products. Additional third parties may assert infringement claims against us based on existing or future intellectual property rights, regardless of merit. If we are found to infringe a third party's intellectual property rights, we could be required to incur costs to obtain a license from such third party to continue developing and marketing our products. We may also elect to enter into such a license in order to settle pending or threatened litigation. However, we may not be able to obtain any required license on commercially reasonable terms, or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors access to the same technologies licensed to us, and could require us to pay significant royalties and other fees. We could be forced, including by court order, to cease commercializing the infringing product. In addition, we could be found liable for monetary damages, which may be significant. If we are found to have willfully infringed a third-party patent, we could be required to pay treble damages and attorneys' fees. A finding of infringement could prevent us from commercializing our planned products in commercially important territories, or force us to cease some of our business operations, which could harm our business and cause brand and reputational harm. We could also be forced to redesign those products that contain the allegedly infringing intellectual property, which could be costly, disruptive and infeasible. Many of our employees were previously employed at, and many of our current advisors and consultants are employed by, universities or other biotechnology, medical device, healthcare, or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, advisors and consultants do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we, or these employees, have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such employee's former employer. Furthermore, although these agreements may be difficult to enforce, we may in the future be subject to claims that these individuals are violating non-compete agreements with their former employers. These and other claims that we have misappropriated the confidential information or trade secrets of third parties can have a similar negative impact on our business to the infringement claims discussed above.

Even if we are successful in defending against intellectual property claims, litigation or other legal proceedings relating to such claims may cause us to incur significant expenses, cause reputational harm, and could distract our technical and management personnel from their normal responsibilities. If we fail in defending any such claims, in addition to paying monetary damages or other settlements, we may lose valuable intellectual property rights or

personnel, which could harm our business, financial condition and results of operations. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial negative impact on the price of our common shares. Such litigation or proceedings could substantially increase our operating losses and reduce our resources available for development activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their substantially greater financial resources. Uncertainties resulting from the initiation and continuation of litigation or other intellectual property related proceedings could harm our business, financial condition and results of operations.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Obtaining and maintaining our patent protection depends on compliance with various procedural measures, document submissions, fee payments and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other government fees on patents and patent applications will be due to be paid to the USPTO and various government patent agencies outside of the United States over the lifetime of our patents and applications. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment and other similar provisions during the patent application process. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in the abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could harm our business, financial condition and results of operations.

Certain of our patents are, and our future owned and in-licensed patents may be, discovered through government funded programs and thus may subject to federal regulations such as “march-in” rights, certain reporting requirements and a preference for U.S.-based companies. Compliance with such regulations may limit our exclusive rights, and limit our ability to contract with non-U.S. manufacturers.

Certain of our patents are, and our future owned and in-licensed patents may be, discovered through government funded programs. As a result, the U.S. government may have certain rights to intellectual property embodied in our current or future products pursuant to the Bayh-Dole Act of 1980, or the Bayh-Dole Act, and implementing regulations, which are amended from time to time. These U.S. government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right to require us or our licensors to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if it determines that: (i) adequate steps have not been taken to commercialize the invention; (ii) government action is necessary to meet public health or safety needs; or (iii) government action is necessary to meet requirements for public use under federal regulations, which are also referred to as “march-in rights.” The U.S. government also has the right to take title to these inventions if we, or the applicable licensor, fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. These time limits have recently been changed by regulation, and may change in the future. Intellectual property generated under or in collaboration with a government funded program is also subject to certain reporting requirements, compliance with which may require us or the applicable licensor to expend substantial resources. In addition, the U.S. government requires that any products embodying the subject invention or produced through the use of the subject invention be manufactured substantially in the United States. The manufacturing preference requirement can be waived if the owner of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible. This preference for U.S. manufacturers may limit our future ability to contract with non-U.S. product manufacturers for products covered by such intellectual property. If the U.S. government decides to exercise these rights, it is not

required to engage us as its contractor in connection with doing so. These rights may permit the U.S. government to disclose our confidential information to third parties. To the extent any of our current or future intellectual property is generated through the use of U.S. government funding, the provisions of the Bayh-Dole Act may similarly apply. Any exercise by the government of any of the foregoing rights could harm our business, financial condition, results of operations and prospects.

If we fail to comply with our obligations in any current or future agreements under which we license intellectual property rights from third parties or otherwise experience disruptions to our business relationships with our licensors, we could lose license rights that are important to our business.

We are and may become party to license or collaboration agreements with third parties to advance our research or allow commercialization of our products. Such agreements may impose numerous obligations, such as development, diligence, payment, commercialization, funding, milestone, royalty, sublicensing, insurance, patent prosecution, enforcement and other obligations on us and may require us to meet development timelines, or to exercise certain efforts to develop and commercialize licensed products, in order to maintain the licenses. In spite of our best efforts, our licensors might conclude that we have materially breached such license agreements and might therefore terminate the license agreements, thereby removing or limiting our ability to develop and commercialize products and technologies covered by these license agreements.

Any termination of these licenses could result in the loss of significant rights and could harm our ability to commercialize our products, and competitors or other third parties would have the freedom to seek regulatory approval of, and to market, products identical to ours. We may further be required to cease our development and commercialization of certain of our products. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

Disputes may also arise between us and our licensors regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- whether and the extent to which our technology and processes infringe, misappropriate or otherwise violate intellectual property rights of the licensor that are not subject to the license agreement;
- our right to sublicense patent and other rights to third parties under collaborative development relationships;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our products, and what activities satisfy those diligence obligations;
- the priority of invention of any patented technology; and
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our future licensors and us and our partners.

In addition, the agreements under which we may license intellectual property or technology from third parties are likely to be complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our sales, business, financial condition or results of operations. Moreover, if disputes over intellectual property that we may license prevent or impair our ability to maintain future license agreements on acceptable terms, we may be unable to successfully develop and commercialize the affected products, which could have a material adverse effect on our sales, business, financial conditions or results of operations.

If we are unable to obtain patent term extension under the Hatch-Waxman Amendments, our business may be materially harmed.

Depending upon the timing, duration and specifics of FDA marketing approval of our products, one or more of the U.S. patents we own or license may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years for a patent covering an approved product as compensation for effective patent term lost during product development and the FDA regulatory review process. However, even if, at the relevant time, we have an issued patent covering our product, we may not be granted an extension if we were, for example, to fail to exercise due diligence during the testing phase or regulatory review process, to fail to apply within applicable deadlines or prior to expiration of relevant patents or otherwise to fail to satisfy applicable requirements. Moreover, the time period of the extension or the scope of patent protection afforded could be less than we request. Only one patent per approved product can be extended, the extension cannot extend the total patent term beyond 14 years from approval and only those claims covering the approved product, a method for using it or a method for manufacturing it may be extended. If we are unable to obtain patent term extension or restoration or the term of any such extension is less than we request, the period during which we can enforce our patent rights for the applicable product will be shortened and our competitors may obtain approval of competing products following our patent expiration. As a result, our ability to generate revenues could be adversely affected. Further, if this occurs, our competitors may take advantage of our investment in development and studies by referencing our clinical and preclinical data and launch their product earlier than might otherwise be the case. If we do not have adequate patent protection or other exclusivity for our products, our business, financial condition or results of operations could be adversely affected.

We have limited foreign intellectual property rights and may not be able to protect our intellectual property and proprietary rights throughout the world, which could harm our business, financial condition and results of operations.

We have limited intellectual property rights outside the United States. Filing, prosecuting and defending patents on our products in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as in the United States. While we do not currently operate or sell our products outside of the United States, these products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Patent protection must ultimately be sought on a country-by-country basis, which is an expensive and time-consuming process with uncertain outcomes. Accordingly, we may choose not to seek patent protection in certain countries, and we will not have the benefit of patent protection in such countries, which may impede on our ability to grow outside of the United States.

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

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or

government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition and results of operations may be harmed.

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

Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act, or the America Invents Act, enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the USPTO after March 2013, but before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we could continue incurring costs without being certain that we were the first to file any patent application related to our products or invent any of the inventions claimed in our patents or patent applications.

The America Invents Act also includes a number of significant changes that affect the way patent applications are prosecuted and also may affect patent litigation. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, inter partes review and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in U.S. federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Additionally, USPTO proceedings provide a venue for challenging the validity of patents at a cost must lower than district court litigation and on much faster timelines. This lower-cost, faster and potentially more potent tribunal for challenging patents could itself increase the likelihood that our own patents will be challenged. Therefore, the America Invents 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. In addition, future actions by the U.S. Congress, the federal courts and the USPTO could cause the laws and regulations governing patents to change in unpredictable ways. Any of the foregoing could harm our business, financial condition and results of operations.

In addition, recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the validity and enforceability of patents, once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. We cannot predict how this and future decisions by the courts, the U.S. Congress or the USPTO may impact the value of our patents. Any similar adverse changes in the patent laws of other jurisdictions could also harm our business, financial condition, results of operations and prospects.

We may be subject to claims, including third-party claims of intellectual property infringement, misappropriation or other violations against us or our collaborators, challenging the ownership or inventorship of our intellectual property and, if unsuccessful in any of these proceedings, we may be required to obtain licenses from third parties, which may not be available on commercially reasonable terms, or at all, or to cease the development, manufacture and commercialization of one or more of our products.

The medical device industry is highly competitive and dynamic. Due to the focused research and development that is taking place by several companies, including us and our competitors, in this field, the intellectual property landscape is in flux, and it may remain uncertain in the future. As such, we may be subject to claims that current or former employees, collaborators or other third parties have an interest in our patents, trade secrets or other intellectual property as an inventor or co-inventor. Additionally, we could become subject to significant intellectual property-related litigation and proceedings relating to our or third-party intellectual property and proprietary rights. For example, we may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our products, or could face third-party claims of intellectual property infringement, misappropriation or other violations, including by a licensor from whom we've licensed certain intellectual property.

Litigation may be necessary to defend against these and other claims challenging inventorship of our patents, trade secrets or other intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our products. If we were to lose exclusive ownership of such intellectual property, other owners may be able to license their rights to other third parties, including our competitors. We also may be required to obtain and maintain licenses from third parties, including parties involved in any such disputes. Such licenses may not be available on commercially reasonable terms, or at all, or may be non-exclusive. If we are unable to obtain and maintain such licenses, we may need to cease the development, manufacture and commercialization of one or more of our products. The loss of exclusivity or the narrowing of our patent claims could limit our ability to stop others from using or commercializing similar or identical technology and products. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could harm our business, financial condition and results of operations.

Additionally, our commercial success depends in part on our and any potential future collaborators' ability to develop, manufacture, market and sell any products that we may develop and use our proprietary technologies without infringing, misappropriating or otherwise violating the patents and other intellectual property or proprietary rights of third parties. It is uncertain whether the issuance of any third-party patent would require us or any potential collaborators to alter our development or commercial strategies, obtain licenses or cease certain activities. The medical device industry is characterized by extensive litigation regarding patents and other intellectual property rights, as well as administrative proceedings for challenging patents, including interference, inter partes or post-grant review, derivation and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions.

Third parties, including our competitors, may currently have patents or obtain patents in the future and claim that the manufacture, use or sale of our products infringes upon these patents. We have not conducted an extensive search of patents issued or assigned to other parties, including our competitors, and no assurance can be given that patents containing claims covering our products, parts of our products, technology or methods do not exist, have not been filed or could not be filed or issued. In addition, because patent applications can take many years to issue and because publication schedules for pending patent applications vary by jurisdiction, there may be applications now pending of which we are unaware and which may result in issued patents which our current or future products infringe. Also, because the claims of published patent applications can change between publication and patent grant, there may be published patent applications that may ultimately issue with claims that we infringe. Unintentionally abandoned patents or applications can also be revived, so there may be recently revived patents or applications of which we are unaware. As the number of competitors in our market grows and the number of patents issued in this area increases, the possibility of patent infringement claims against us escalates. Moreover, we may face claims from non-practicing entities, or NPEs, which have no relevant product revenue and against whom our own patent

portfolio may have no deterrent effect. Third parties, including NPEs, may in the future claim, that our products infringe or violate their patents or other intellectual property rights.

In the event that any third-party claims that we infringe their patents or that we are otherwise employing their proprietary technology without authorization and initiates litigation against us, even if we believe such claims are without merit, there is no assurance that a court would find in our favor on questions of infringement, validity, enforceability or priority. A court of competent jurisdiction could hold that these third-party patents are valid, enforceable and infringed by our products, which could harm our ability to commercialize any product we may develop and any other technologies covered by the asserted third-party patents. In order to successfully challenge the validity of any such U.S. patent in federal court, we would need to overcome a presumption of validity. As this burden is a high one requiring us to present clear and convincing evidence as to the invalidity of any such U.S. patent claim, there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent. If we are found to infringe third-party intellectual property rights, including patents, and we are unsuccessful in demonstrating that such patents or other intellectual property rights are invalid or unenforceable, such third parties may be able to block our ability to commercialize the applicable products or technology unless we obtain a license under the applicable patents, or until such patents expire or are finally determined to be held invalid or unenforceable. Such a license may not be available on commercially reasonable terms, or at all. Even if we are able to obtain a license, the license would likely obligate us to pay significant license fees and/or royalties, and the rights granted to us might be non-exclusive, which could result in our competitors gaining access to the same technology. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, we may be unable to commercialize our products, or such commercialization efforts may be significantly delayed, which could in turn significantly harm our business.

Defense of infringement claims, regardless of their merit or outcome, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, and may impact our reputation. In the event of a successful claim of infringement against us, we may be enjoined from further developing or commercializing the infringing products and/or have to pay substantial damages for use of the asserted intellectual property, including treble damages and attorneys' fees were we found to willfully infringe such intellectual property. Claims that we have misappropriated the confidential information or trade secrets of third parties could harm our business, financial condition and results of operations. We also might have to redesign our infringing products or technologies, which may be impossible or require substantial time and monetary expenditure.

Engaging in litigation, including to defend against third-party infringement claims is very expensive, particularly for a company of our size, and time-consuming. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial negative impact on our common stock price. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of litigation or administrative proceedings more effectively than we can because of greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings against us could impair our ability to compete in the marketplace. The occurrence of any of the foregoing could harm our business, financial condition and results of operations.

We may become involved in lawsuits to protect or enforce our patents and other intellectual property rights, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents, or the patents of any current or future licensing partners, or we may be required to defend against claims of infringement. Our ability to enforce our patent rights against competitors who infringe our patents depends on our ability to detect such infringement. It may be difficult to detect infringers who do not advertise the components that are used in their products. Moreover, it may be difficult or impossible to obtain evidence of infringement in a competitor's or potential competitor's product. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded if we were to prevail may not be commercially meaningful.

In addition, our patents or the patents of our licensing partners also may become involved in inventorship, priority or validity disputes. For example, although we try to ensure that our employees, consultants and advisors are not in breach of any past contractual obligations and do not use the proprietary information or know-how of others in the work that they do for us, we may in the future become subject to claims that we or these individuals have, inadvertently or otherwise, used or disclosed intellectual property, including trade secrets or other proprietary information, of their former university or employer. Additionally, we may be subject to claims from third parties challenging intellectual property rights we regard as our own, based on claims that our agreements with employees or consultants obligating them to assign intellectual property to us are ineffective or in conflict with prior or competing contractual obligations to assign inventions to a previous employer, or to another person or entity. Furthermore, while it is our policy to require all employees and contractors to execute agreements assigning relevant intellectual property to us, we may also be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. These assignment agreements may not be self-executing or adequate in scope, and may be breached or challenged, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. We may not have adequate remedies for any such breaches, and such claims could harm our business, financial condition and results of operations.

To counter or defend against such claims can be expensive and time-consuming and it may be necessary or we may desire to enter into a license to settle any such claims; however, there can be no assurance that we would be able to obtain a license on commercially reasonable terms, if at all. In an infringement proceeding, a court may decide that our patent is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover such technology. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during litigation.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our management and other personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial negative impact on our common stock price. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could harm our ability to compete in the marketplace, including ability to hire new employees or contract with independent sales representatives. Additionally, we may lose valuable intellectual property rights or personnel. Any of the foregoing could harm our business, financial condition and results of operations.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be harmed.

Our registered and unregistered trademarks or trade names may be challenged, infringed, circumvented, declared generic or determined to be violating or infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build or sustain name recognition among potential partners, customers and patients in our markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to continue to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement or dilution claims brought by owners of other trademarks. Over the long term, if we are unable to establish name recognition based on our trademarks, trade names, domain names or other intellectual property, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade secrets, domain names or other intellectual property may be ineffective, could result in

substantial costs, diversion of resources, or adverse impact to our brand and could harm our business, financial condition and results of operations.

Intellectual property rights do not necessarily address all potential threats, and limitations in intellectual property rights could harm our business, financial condition and results of operations.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, may evolve, and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to our products or utilize similar technology but that are not covered by the claims of our patents or that incorporate certain technology in our products that is in the public domain;
- our intellectual property strategy may be limited, we may not seek protection for intellectual property that may ultimately become relevant to our business or our invention disclosure process may prove insufficient to encourage inventors to come forward with protectable intellectual property;
- we, or our current or future licensors or collaborators, might not have been the first to make the inventions covered by the applicable issued patent or pending patent application that we own now or may own or license in the future;
- we, or our current or future licensors or collaborators, might not have been the first to file patent applications covering certain of our or their inventions;
- we, or our current or future licensors or collaborators, may fail to meet our obligations to the U.S. government regarding any future patents and patent applications funded by U.S. government grants, leading to the loss or unenforceability of patent rights;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our current or future pending patent applications will not lead to issued patents;
- it is possible that there are prior public disclosures that could invalidate our patents, or parts of our patents;
- it is possible that there are unpublished applications or patent applications maintained in secrecy that may later issue with claims covering our products or technology similar to ours;
- it is possible that our patents or patent applications omit individuals that should be listed as inventors or include individuals that should not be listed as inventors, which may cause these patents or patents issuing from these patent applications to be held invalid or unenforceable;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors or other third parties;
- the claims of our patents or patent applications, if and when issued, may not cover our products or technologies;
- the laws of foreign countries may not protect our proprietary rights or the rights of current or future licensors or collaborators to the same extent as the laws of the United States;
- the inventors of our patents or patent applications may become involved with competitors, develop products or processes that design around our patents, or become hostile to us or the patents or patent applications on which they are named as inventors;

- our competitors or other third parties might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we have engaged in scientific collaborations in the past and will continue to do so in the future and our collaborators may develop adjacent or competing products that are outside the scope of our patents;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; or
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Any of the foregoing could harm our business, financial condition and results of operations.

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

In addition to patent protection, we also rely on other proprietary rights, including protection of trade secrets, know-how and other confidential or proprietary information that is not patentable or that we elect not to patent. However, such information can be difficult to protect, and some courts, for instance, are less willing or unwilling to protect trade secrets. To maintain the confidentiality of our trade secrets and proprietary information, we rely heavily on confidentiality provisions that we have in contracts with our employees, consultants, collaborators, suppliers, customers, and others upon the commencement of their relationship with us. We cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technology and processes. Furthermore, we may not be able to prevent the unauthorized disclosure or use of our technical knowledge or other trade secrets by such third parties, despite the existence generally of these confidentiality restrictions. These contracts may not provide meaningful protection or equitable remedies 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 such third parties 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 or other proprietary rights, 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 or other proprietary rights have or will be adequate. Trade secret violations are often a matter of state law, and the criteria for protection of trade secrets can vary among different jurisdictions. In addition, the laws of many foreign countries will not protect our intellectual property or other proprietary 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 foreign markets or require costly efforts to protect our products.

We also license rights to use certain proprietary information and technology from third parties. The use of such proprietary information and technology is therefore subject to the obligations of the applicable license agreement between us and the owner. For example, the software we developed for our RNS System includes the use of open source software that is subject to the terms and conditions of the applicable open source software licenses that grant us permission to use such software. The owner of any such proprietary information or technology also might not enforce or otherwise protect its rights in the proprietary information or technology with the same vigilance that we would, which would allow competitors to use such proprietary information and technology without having to adhere to a license agreement with the owner.

To the extent our intellectual property or other proprietary information 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 products or technology. Our competitors could purchase our products and attempt to reverse engineer or replicate some or all of the competitive advantages we derive from our development efforts or design around our protected products or technology. Our failure to secure, protect and enforce our intellectual property rights could substantially harm the value of our products, 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, substantially and adversely impact our sales and commercial operations and harm our business. Additionally, 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, financial condition and results of operations.

Further, it is possible that others will independently develop the same or similar technology or product 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 otherwise obtain our trade secrets or independently develop technology or products similar to and potentially competing with our products, our competitive market position could be materially and adversely affected. In addition, some courts 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.

We also seek to preserve the integrity and confidentiality of our data and other confidential information by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations, systems and tools, agreements or security measures may be breached, whereby detecting the disclosure or misappropriation of confidential information and enforcing a claim that a party illegally disclosed or misappropriated confidential information is difficult, expensive and time-consuming, and the outcome is unpredictable. Further, we may not be able to obtain adequate remedies for any breach.

Our inability to use software licensed from third parties, or our use of open source software under license terms that interfere with our proprietary rights, could disrupt our business.

Our products, including our RNS System, includes the use of open source software that is subject to the terms and conditions of the applicable open source software licenses that grant us permission to use such software. Although we monitor our use of open source software, the terms of many open source licenses to which we are subject have not been interpreted by U.S. or foreign courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to provide our technology to our customers. Moreover, we cannot ensure that we have not incorporated additional open source software in our products in a manner that is inconsistent with the terms of the applicable license or our current policies and procedures. In the future, we could be required to seek licenses from third parties in order to continue offering our solutions, which licenses may not be available on terms that are acceptable to us, or at all. Claims related to our use of open source software could also result in litigation, require us to purchase costly licenses or require us to devote additional research and development resources to change the software underlying our technology, any of which would have a negative effect on our business, financial condition and operating results and may not be possible in a timely manner. We and our customers may also be subject to suits by parties claiming infringement due to the reliance by our products on certain open source software, and such litigation could be costly for us to defend or subject us to injunctions enjoining us from the sale of our products that contain open source software.

Alternatively, we may need to re-engineer our products or discontinue using portions of the functionality provided by our products. In addition, the terms of open source software licenses may require us to provide software that we develop using such software to others on unfavorable terms, such as by precluding us from charging license fees, requiring us to disclose our source code, requiring us to license certain of our own source code under the terms of the applicable open source license or requiring us to provide notice on our products using such code. Any such restriction on the use of our own software, or our inability to use open source or third-party software, could result in disruptions to our business or operations, or delays in our development of future products or enhancements of our existing products, such as our RNS System, which could impair our business.

Risks related to financial matters

We have a history of net losses, and we expect to continue to incur losses for the foreseeable future. If we do achieve profitability, we may not be able to sustain it.

We have incurred losses since our inception and expect to continue to incur losses for the foreseeable future. For the years ended December 31, 2019 and 2020, we reported net losses of \$30.0 million and \$24.3 million, respectively. As a result of these losses, as of December 31, 2020, we had an accumulated deficit of approximately \$387.7 million. We expect to continue to incur significant business expenses as we continue to enhance our efforts to promote our brand, increase sales, improve therapy effectiveness, enhance the patient and provider experience, and expand the population of eligible patients. In addition, we expect our selling, general and administrative expenses to increase following this offering due to the additional costs associated with being a public company. The net losses that we incur may fluctuate significantly from period to period. We will need to generate significant additional revenue and improve our gross margins in order to achieve and sustain profitability. It is possible that we will not achieve profitability or that, even if we do achieve profitability, we may not remain profitable for any substantial period of time. Our failure to achieve or maintain profitability could negatively impact the value of our common stock.

We have received funding under the Coronavirus Aid, Relief and Economic Security Act, or the CARES Act.

In April 2020, we executed a note in favor of Silicon Valley Bank evidencing an unsecured loan, or PPP loan, in the aggregate principal amount of approximately \$4.0 million, which was made pursuant to the Paycheck Protection Program, or the PPP. The PPP was established under the CARES Act, which was enacted on March 27, 2020, and is administered by the U.S. Small Business Administration, the SBA. We have used all proceeds from the loan to retain employees, maintain payroll and make lease and utility payments and we intend to use a portion of the proceeds from this offering to repay this loan.

The PPP loan application required us to certify, among other things, that the current economic uncertainty made the PPP loan request necessary to support our ongoing operations. In 2020, the SBA, in consultation with the Department of Treasury, issued new guidance requiring borrowers to consider their ability to access other sources of liquidity before certifying in their loan applications that current economic uncertainty makes this loan request necessary to support the ongoing operations. The SBA further stated that it is unlikely that a public company with substantial market value and access to capital markets will be able to make the required certification in good faith. We made the certification in good faith after analyzing our financial situation and access to capital and believe that we have satisfied all eligibility criteria for the PPP loan. However, the SBA guidance and criteria are subject to interpretation, including by the new administration, and while we intend to use proceeds from this offering to repay the loan, if we are found to be ineligible, we could be subject to significant penalties. If we become subject to penalties, it could result in harm to its business, results of operation and financial condition.

We are party to an existing Term Loan Agreement, which contain restrictive covenants that restrict activities we may engage in, and if we are unable to comply with these covenants then the lenders could declare an event of default wherein we may need to immediately repay the amounts due under the Term Loan Agreement.

In September 2020, we entered into a new Term Loan Agreement, or the New Term Loan, pursuant to which the lender has made available to us an aggregate principal amount not to exceed \$60.0 million, of which, as of December 31, 2020, we have drawn \$50 million and the remainder may be drawn only if we meet certain financial thresholds. The New Term Loan contains customary affirmative and restrictive covenants, including with respect to our ability to enter into fundamental transactions, incur additional indebtedness, grant liens, pay any dividend or make any distributions to our holders, make investments, merge or consolidate with any other person or engage in transactions with our affiliates, as well as financial maintenance covenants, including minimum liquidity and annual revenue covenants. If we fail to comply with the covenants or payments specified in the New Term Loan, the lenders could declare an event of default, which would give it the right to terminate its commitment to provide additional loans and declare all borrowings outstanding, together with accrued and unpaid interest and fees, to be immediately due and payable. In addition, borrowings under the New Term Loan are secured by substantially all of our properties, rights and assets, including intellectual property.

To support our continued operations and the growth of our business, we may need to seek additional capital through new equity or debt financings, which sources of additional capital may not be available to us on acceptable terms or at all. If we are unable to obtain, if needed, adequate financing or financing on terms satisfactory to us, it could harm our business and growth prospects.

Our operations have consumed substantial amounts of cash since inception and we intend to continue to make significant investments to support our continued business operations and growth, respond to business challenges or opportunities, enhance our products, expand the population of eligible patients, and potentially acquire complementary businesses and technologies. For the years ended December 31, 2019 and 2020, our net cash used in operating activities was \$25.0 million and \$21.6 million, respectively. As of December 31, 2020, we had \$38.1 million of cash, cash equivalents and short-term investments and \$9.6 million in current liabilities.

Our future capital requirements may be significantly different from our current estimates and will depend on many factors, including our growth rate, the growth of sales and marketing activities, the expansion of the population of eligible patients, geographies we may choose to enter and commercialize in, updates to our products, potential introduction of new products, either developed internally or acquired, the continued oversight of regulatory agencies, and the continuing market acceptance of our products. Accordingly, we may need to engage in equity or debt financings or collaborative arrangements to secure additional funds. If we raise additional funds through further issuances of equity or convertible debt securities, our existing stockholders could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our common stock. Any debt financing secured by us in the future could involve additional restrictive covenants relating to our capital-raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. In addition, during times of economic instability, it has been difficult for many companies to obtain financing in the public markets or to obtain debt financing, and we may not be able to obtain additional financing, if needed, on commercially reasonable terms, if at all. If we are unable to obtain adequate financing or financing on terms satisfactory to us, if needed, it could harm our business and growth prospects.

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

In general, under Section 382 of the U.S. Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its pre-change net operating losses, or NOLs, to offset future taxable income. A Section 382 “ownership change” generally occurs if one or more stockholders or groups of stockholders who own at least 5% of our 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. As of December 31, 2020, we had \$115.1 million of federal net operating loss carryforwards and \$99.5 million of state and local net operating loss carryforwards. The federal and state NOL carryforwards begin expiring in 2021 and 2028, for federal and state purposes, respectively. As of December 31, 2020, the amount of federal NOL carryforwards that does not expire is \$62.5 million (subject to certain utilization limitations). We have conducted a Section 382 study and determined that we experienced an ownership change in 2016 which resulted in permanent limitation of our pre-change NOL and research and development credit carryforwards. In addition, future changes in our stock ownership, some of which are outside of our control, could result in an additional ownership change under Section 382 of the Code, further limiting our ability to utilize NOLs arising prior to such ownership change in the future. There is also a risk that due to statutory or regulatory changes, such as suspensions on the use of NOLs (including California legislation enacted in June 2020 that limits the ability to use California net operating losses to offset California income for tax years beginning after 2019 and before 2023), or other unforeseen reasons, our existing NOLs could expire or otherwise be unavailable to offset future income tax liabilities.

We have identified a material weakness in our internal control over financial reporting. If we are unable to remediate this material weakness, or if we identify additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls, we may not be able to accurately or timely report our financial condition or results of operations.

In the course of preparing our financial statements for 2019 and 2020, we identified a material weakness in our internal control over financial reporting. 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 our annual or interim financial statements may not be prevented or detected in a timely manner. We did not design controls to address segregation of duties over the review and approval of account reconciliations and manual journal entries. This material weakness could result in a misstatement of account balances or disclosures that would result in a material misstatement to the annual or interim financial statements that would not be prevented or detected.

We are in the process of implementing measures designed to improve our internal control over financial reporting and remediate the control deficiencies that led to the material weakness, including hiring additional accounting personnel and implementing improved accounting and financial reporting procedures and controls and more formal accounting policies.

We cannot be certain that the measures we have taken to date, and actions we may take in the future, will be sufficient to remediate the control deficiencies that led to our material weakness in our internal control over financial reporting or that they will prevent or avoid potential future material weaknesses. In addition, neither our management nor an independent registered public accounting firm has performed an evaluation of our internal control over financial reporting because no such evaluation has been previously required. If we are unable to successfully remediate our existing or any future material weaknesses in our internal control over financial reporting, or identify any additional material weaknesses, the accuracy and timing of our financial reporting may be negatively impacted, we may be unable to maintain compliance with securities law requirements regarding timely filing of periodic reports in addition to applicable stock exchange listing requirements, investors may lose confidence in our financial reporting, and our stock price may decline as a result.

Our history of recurring losses and anticipated expenditures raises substantial doubts about our ability to continue as a going concern. Our ability to continue as a going concern requires that we obtain sufficient funding to finance our operations.

We have incurred operating losses to date and it is possible we may never generate a profit. Our financial statements included elsewhere in this prospectus have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the ordinary course of business. These financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of these uncertainties related to our ability to operate on a going concern basis.

We have concluded that our recurring losses from operations and need for additional financing to fund future operations raise substantial doubt about our ability to continue as a going concern. Similarly, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements as of and for the year ended December 31, 2020 with respect to this uncertainty. If we are unable to raise sufficient capital when needed, our business, financial condition and results of operations will be harmed, and we will need to significantly modify our operational plans to continue as a going concern. If we are unable to continue as a going concern, we might have to liquidate our assets and the values we receive for our assets in liquidation or dissolution could be significantly lower than the values reflected in our financial statements.

Other risks facing our company

The estimates of market opportunity and forecasts of market and revenue growth included in this prospectus, including growth in the number of Level 4 CECs, epileptologists and neurosurgeons, may prove to be inaccurate, and even if the market in which we compete achieves the forecasted growth, our business could fail to grow at similar rates, if at all.

Market opportunity estimates and growth forecasts are subject to significant uncertainty. Our estimates of the annual total addressable markets for our RNS System are based on a number of internal and third-party estimates and assumptions, including, without limitation, our assumptions relative to the number of adults with drug-resistant focal epilepsy in the United States who are treated at Level 4 CECs each year; the number of neuromodulation procedures annually in the United States; the growth in number of Level 4 CECs, epileptologists, and neurosurgeons; the growth in number of patients referred to Level 4 CECs; and the potential growth of our market opportunity with the expansion of treatment to patients under age 18. While we believe our assumptions and the data underlying our estimates are reasonable, these assumptions and estimates may not be correct and the conditions supporting our assumptions or estimates may change at any time, including as a result of the COVID-19 pandemic, thereby reducing the predictive accuracy of these underlying factors. As a result, our estimates of the annual total addressable market for our RNS System may prove to be incorrect. If the actual annual total addressable market for our RNS System is smaller than we have estimated, it may impair our sales growth and have an adverse impact on our business. Alternatively, if the actual annual total addressable market for our RNS System is bigger than we have estimated, we may not be ready to manage such growth, which may impair our sales and have an adverse impact on our business.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit or halt the marketing and sale of our products. The expense and potential unavailability of insurance coverage for liabilities resulting from our products could harm our business and our ability to sell our products, including our RNS System.

We face an inherent risk of product liability as a result of the marketing and sale of our products. Although we have established internal procedures designed to minimize risks that may arise from quality issues, there can be no assurance that we will eliminate or mitigate occurrences of these issues and associated liabilities. For example, we may be sued if our RNS System causes or is perceived to cause injury or is found to be otherwise unsuitable during manufacturing, marketing, sale, or distribution. Any such product liability claim may include, but not be limited to, allegations of defects in manufacturing, defects in design, defects in clinical study design or performance, a failure to warn of dangers inherent in the product, negligence, strict liability or a potential breach of implied or expressed warranties. In addition, we may be subject to claims against us even if the apparent injury is due to the actions of others or the pre-existing health of the patient. For example, we rely on healthcare providers to properly and correctly implant and use our RNS System as part of a patient's treatment protocol. If these healthcare providers are not properly trained, are negligent in implanting or using our RNS System or implant or use our RNS System "off-label," the capabilities or reputation of our RNS System may be diminished or the patient may suffer critical injury. While we believe that we clearly describe the limitations of our label, we cannot prevent an epileptologist from referring a patient for an RNS System implant for off-label indications, prevent a neurosurgeon from implanting our RNS System for off-label applications, or having our RNS System programmed based on off-label considerations. In addition, we cannot guarantee that healthcare providers are adequately trained prior to incorporating our RNS System into their practice. Complications resulting from the use of our products, including use of our RNS System off-label or use by healthcare providers who have not been trained appropriately, or at all, may expose us to product liability claims and harm our reputation. We may also be subject to claims that are caused by the activities of our suppliers and vendors, such as those who provide us with components, materials, or services, which may have an impact on our products and result in product liability claims brought against us.

If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit or halt commercialization of our products. Even a successful defense would require

significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our products;
- injury to our brand or reputation;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- increased insurance premiums;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- regulatory investigations, product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources; and
- the inability to market and sell our products.

We believe we have adequate product liability insurance, but it may not prove to be adequate to cover all liabilities that we may incur. Insurance coverage is increasingly expensive. We currently carry product liability insurance in the amount of \$5.0 million in the aggregate. In the future, we may not be able to maintain or obtain insurance at a reasonable cost or in an amount adequate to satisfy any liability that may arise. Our insurance policy contains various exclusions, and we may be subject to a product liability claim for which we have no coverage. The potential inability to obtain sufficient product liability insurance at an acceptable cost to protect against product liability claims could prevent or inhibit the marketing and sale of products we may develop. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts, which would harm our business, financial condition and results of operations. In addition, 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 patient-focused brand, negatively impact our reputation in the industry, significantly increase our expenses and reduce product sales.

Some of our customers may also have difficulty in procuring or maintaining liability insurance to cover their operations, including their use of our products. Medical malpractice carriers are withdrawing coverage in certain states or substantially increasing premiums. If this trend continues or worsens, our customers may discontinue using our products and potential additional customers may opt against purchasing our products due to the cost or inability to procure insurance coverage.

The failure of third parties to meet their contractual, regulatory and other obligations could adversely affect our business.

We rely on suppliers, vendors, partners, consultants, and other third parties to research, develop, and partake in both the manufacturing and commercialization of our products, as well as manage certain parts of our business. Using these third parties poses a number of risks, such as:

- they may not perform to our standards or legal requirements;
- they may not produce reliable results;
- they may not perform in a timely manner;

- they may not maintain confidentiality of our proprietary information;
- disputes may arise with respect to ownership of rights to products developed with our partners; and
- disagreements could cause delays in, or termination of, the research, development or commercialization of our products or result in litigation or arbitration.

Moreover, some third parties may be located in markets subject to political and social risk, corruption, infrastructure problems and natural disasters, in addition to country-specific privacy and data security risk given current legal and regulatory environments. Failure of third parties to meet their contractual, regulatory and other obligations may materially affect our business.

Future legislation, potential changes in federal regulatory agency leadership, and new policies and priorities under the Biden Administration may adversely impact our company.

With a new Congress having taken office in January 2021, Democrats retain control of the U.S. House of Representatives and have taken control of the U.S. Senate. This means unified Democratic control of both chambers of Congress and the White House. We anticipate that Congress will devote substantial attention in 2021 to healthcare matters, through greater oversight of the FDA. Although the prospects for the enactment of major legislation in 2021 are not certain at this time, the enactment of more targeted measures may be more likely due to the increased possibility of bipartisan support for consideration of such measures. It is too early to know what any such legislation may be, as the relevant Congressional committees are still in the process of being organized for the new Congress and their respective agendas are in early planning stages. In addition, although it is too early to know the details of the new administration's proposed safety protocols, the new administration could impose new or modified COVID-19 programs and restrictions, including more stringent shelter-in-place" and "safer-at-home" orders, quarantines, executive orders and similar government orders and restrictions to control the spread and ameliorate the impact of COVID-19. Additionally, the new administration may propose COVID-19-related fiscal and tax measures and/or revise or create new regulatory requirements that would apply to us or our customers, thereby impacting our business, operations and profitability. Moreover, changes in the leadership and senior staffs of the FDA could impact the rulemaking, supervision, examination and enforcement priorities and policies of the agency. The potential impact of any changes in agency personnel, policies and priorities on the medical device sector, including us, cannot be predicted at this time.

In addition, the new administration is expected to bring an increased focus on enforcement of federal consumer protection laws and appoint consumer-oriented regulators. It is possible that regulators in the new administration could promulgate rulemakings and bring enforcement actions that materially impact our business and the business of our customers. These regulators may, for example, augment requirements that apply to the medical device approval process, impose additional clinical studies requirements, or change privacy rules that impact how we maintain, use, and share sensitive healthcare data, and could otherwise revise or create new regulatory requirements that apply to us.

We may not be able to respond quickly or effectively to regulatory, legislative, and other developments, and these changes may in turn impair our ability to offer our current or planned products, or increase our cost of doing business. In addition, if our practices are not consistent or viewed as not consistent with legal and regulatory requirements, we may become subject to audits, inquiries, whistleblower complaints, adverse media coverage, investigations, or criminal or civil sanctions, all of which may have an adverse effect on our reputation, business, financial condition and results of operations.

Risks related to this offering and ownership of our common stock

Immediate and substantial dilution in the net tangible book value of the shares of common stock purchased in this offering.

The assumed initial public offering price of our common stock is substantially higher than the pro forma net tangible book value per share of our common stock immediately after this offering. If you purchase shares of our common stock in this offering, you will suffer immediate dilution of \$12.90 per share, or \$12.50 per share if the

underwriters exercise their option to purchase additional shares in full, representing the difference between our pro forma as adjusted net tangible book value per share after giving effect to the sale of common stock in this offering and the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus. See “Dilution.” If outstanding options or warrants are exercised in the future, you will experience additional dilution.

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

We will have broad discretion over the use of proceeds from this offering. Investors may not agree with our decisions, and our use of the proceeds may not yield any return on your investment. We currently intend to use the net proceeds from this offering to expand our sales and marketing efforts, increase our research and development activities, conduct or sponsor clinical studies, expand internationally, and provide for working capital and other general corporate purposes. We also intend to use a portion of the net proceeds we receive from this offering to repay up to approximately \$4.0 million of principal indebtedness, plus any accrued interest, under our Paycheck Protection Program loan. Our failure to apply the net proceeds of this offering effectively could impair our ability to pursue our growth strategy or could require us to raise additional capital. In addition, pending their use, the proceeds of this offering may be placed in investments that do not produce income or that may lose value.

Purchases of shares of common stock in this offering by our existing stockholders and their affiliated entities may further reduce the public float for our common stock.

To the extent certain of our existing stockholders and their affiliated entities purchase shares of our common stock in this offering, such purchases would reduce the non-affiliate public float of our shares, meaning the number of shares of our common stock that are not held by officers, directors and our principal stockholders. A reduction in the public float could reduce the number of shares that are available to be traded at any given time, thereby adversely impacting the liquidity of our common stock and depressing the price at which you may be able to sell shares of common stock purchased in this offering.

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

Sales of a substantial number of shares of our common stock in the public market following the closing of this offering, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. We are unable to predict the effect that such sales may have on the prevailing market price of our common stock.

Based on 16,928,274 shares outstanding as of December 31, 2020, upon the closing of this offering, we will have outstanding a total of 22,241,274 shares of common stock, assuming no exercise of the underwriters’ option to purchase additional shares and no exercise of outstanding options or warrants, and after giving effect to the conversion of all outstanding shares of convertible preferred stock into shares of common stock upon the closing of this offering. All of our executive officers and directors and the holders of substantially all the shares of our capital stock not acquired as part of this public offering are subject to lock-up agreements that restrict their ability to transfer shares of our common stock, stock options and other securities convertible into, exchangeable for, or exercisable for our common stock during the period ending on, and including, the 180th day after the date of this prospectus, subject to specified exceptions. J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC may, in their discretion, permit our stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements. All of our shares will become eligible for sale after the lock-up agreements expire, of which 15,789,944 shares are held by directors, executive officers and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act, and may also be subject to vesting requirements.

As of December 31, 2020, there were approximately 2,835,271 shares of common stock subject to outstanding stock options. We intend to register all of the shares of common stock issuable upon exercise of outstanding stock options, and upon exercise of settlement of any options or other equity incentives we may grant in the future, for public resale under the Securities Act. Accordingly, these shares will be able to be freely sold in the public market

upon issuance as permitted by any applicable vesting requirements, subject to the lock-up agreements and, for our affiliates, volume limitations described above.

In addition, holders of 17,075,296 shares of common stock, shares of common stock issuable upon the conversion of outstanding shares of convertible preferred stock and shares issuable upon the exercise of outstanding warrants have rights, subject to some conditions, to require us to file registration statements for the public resale of the common stock issuable upon conversion of such shares or to include such shares in registration statements that we may file on our behalf or for other stockholders. See “Shares eligible for future sale.”

Concentration of ownership of our common stock among our executive officers, directors and principal stockholders may prevent new investors from influencing significant corporate decisions.

Based on the number of shares of common stock outstanding as of March 31, 2021 and including the shares to be sold in this offering, upon the closing of this offering, our executive officers, directors and current beneficial owners of 5% or more of our common stock will, in the aggregate, beneficially own approximately 72.51% of our common stock (assuming no exercise of the underwriters’ option to purchase additional shares of common stock). These stockholders, acting together, will be able to significantly influence all matters requiring stockholder approval, including the election and removal of directors and any merger or other significant corporate transactions. The interests of this group of stockholders may not coincide with the interests of other stockholders.

Some of these persons or entities may have interests different than investors purchasing shares in this offering. For example, because many of these stockholders purchased their shares at prices substantially below the price at which shares are being sold in this offering and have held their shares for a longer period, they may be more interested in selling our company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders.

We do not intend to pay dividends for the foreseeable future and, as a result, stockholder ability to achieve a return on their investment will depend on appreciation in the price of our common stock.

We have never declared or paid any cash dividends on our capital stock, and we do not intend to pay any cash dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors and may be restricted by the terms of any then-current credit facility, including the New Term Loan. Accordingly, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments.

We are an emerging growth company and a smaller reporting company, and our compliance with the reduced reporting and disclosure requirements applicable to emerging growth companies and smaller reporting companies could make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act, and we expect to take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including the auditor attestation requirements of Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved and extended adoption period for accounting pronouncements.

Even after we no longer qualify as an emerging growth company, we may still qualify as a “smaller reporting company,” which would allow us to continue to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements.

We cannot predict whether investors will find our common stock less attractive as a result of our reliance on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We will remain an emerging growth company until the earliest of (i) the end of the fiscal year following the fifth anniversary of the completion of this offering, (ii) the first fiscal year after our annual gross revenues exceed \$1.07 billion, (iii) the date on which we have, during the immediately preceding three-year period, issued more than \$1.00 billion in non-convertible debt securities, or (iv) the end of any fiscal year in which the market value of our common stock held by non-affiliates exceeds \$700 million as of the end of the second quarter of that fiscal year.

Anti-takeover provisions in our charter documents to be in effect upon the closing of this offering and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our amended and restated certificate of incorporation and amended and restated bylaws to be in effect upon the closing of this offering may have the effect of delaying or preventing a change of control or changes in our management without the consent of our board of directors. Our amended and restated certificate of incorporation and amended and restated bylaws will include provisions that:

- provide for a classified board of directors whose members serve staggered terms;
- authorize our board of directors to issue, without further action by the stockholders, shares of undesignated convertible preferred stock with terms, rights, and preferences determined by our board of directors that may be senior to our common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the chairperson of our board of directors, or our chief executive officer;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors;
- prohibit cumulative voting in the election of directors;
- provide that our directors may be removed for cause only upon the vote of the holders of at least 66 2/3% of our outstanding shares of common stock;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum; and
- require the approval of our board of directors or the holders of at least 66 2/3% of our outstanding shares of common stock entitled to vote at an election of directors to adopt, to amend our bylaws and certain provisions of our certificate of incorporation.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally, subject to certain exceptions, 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. Any delay or prevention of a change of control transaction or changes in our management could cause the market price of our common stock to decline.

Our amended and restated certificate of incorporation that will be in effect upon the closing of this offering will provide that the Court of Chancery of the State of Delaware or, under certain circumstances, the federal district courts of the United States of America will be the exclusive forums for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.

Our amended and restated certificate of incorporation that will be in effect upon the closing of this offering will provide that the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) is the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of fiduciary duty;
- any action arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation, or our amended and restated bylaws; and
- any action asserting a claim against us that is governed by the internal-affairs doctrine.

These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act or any claim for which the federal district courts of the United States of America have exclusive jurisdiction. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims.

Our stockholders cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock will be deemed to have notice of, and consented to, the provisions of our amended and restated certificate of incorporation described in the preceding sentences.

To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation to be in effect upon the closing of this offering will further provide that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation to be in effect upon the closing of this offering. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive forum provisions 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 lawsuits against us and our directors, officers and other employees. If a court were to find either exclusive-forum provision in our amended and restated certificate of incorporation to be in effect upon the closing of this offering to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving the dispute in other jurisdictions, all of which could harm our business and financial condition.

General risk factors

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics or pandemics, and other natural or man-made disasters or business interruptions, for which we are predominantly self-insured. Our ability to obtain

components for our products could be disrupted if the operations of our suppliers were affected by a man-made or natural disaster or other business interruption. In addition, our corporate headquarters and manufacturing facility is located in Mountain View, California, near major earthquake faults and fire zones. Should our facilities be significantly damaged or destroyed, it could take months to relocate or rebuild, during which time our manufacturing would cease or be delayed and our RNS System may be unavailable. Moreover, the use of a new facility or new manufacturing, quality control, or environmental control equipment or systems generally requires FDA review and approval of a PMA supplement. Because of the time required to authorize manufacturing in a new facility under FDA regulatory requirements, we may not be able to resume production on a timely basis even if we are able to replace production capacity. While we maintain property and business interruption insurance, such insurance has limits and would only cover the cost of rebuilding and relocating and, to some extent, lost revenue, but not general damage or losses caused by earthquakes or losses we may suffer due to our products being replaced by competitors' products. The inability to perform our manufacturing activities, combined with our limited inventory of materials and components and manufactured products, may cause physicians to discontinue using our products or harm our reputation, and we may be unable to reestablish relationships with such physicians in the future. Consequently, a catastrophic event at our facility could harm our business, financial condition, and results of operations.

Litigation and other legal proceedings may harm our business.

We are involved in, and from time to time in the future we may become involved in, legal proceedings relating to patent and other intellectual property matters, product liability claims, employee matters, tort or contract claims, federal regulatory investigations, private rights of action, securities class action and other legal proceedings or investigations, which could have a negative impact on our reputation, business and financial condition and divert the attention of our management from the operation of our business. For example, on April 20, 2021, after the registration statement to which this post-effective amendment relates was declared effective, we received correspondence from the United States Department of Treasury regarding an inquiry into unspecified matters that may fall under the jurisdiction of the Committee on Foreign Investment in the United States, or CFIUS. We do not at this time have additional information as to the substance of the inquiry and we intend to cooperate fully with CFIUS on the matter.

Litigation is inherently unpredictable and can result in excessive or unanticipated verdicts, judgements, and/or injunctive relief that affect how we operate our business. We could incur judgments or enter into settlements of claims for monetary damages or for agreements to change the way we operate our business, or both. There may be an increase in the scope of these or other matters or there may be additional lawsuits, claims, proceedings or investigations in the future, which could harm our business, financial condition and results of operations. Adverse publicity about regulatory or legal action against us, irrespective of outcome, could damage our reputation and brand image, undermine our customers' confidence and reduce long-term demand for our products, even if the regulatory or legal action is unfounded or not material to our operations.

Our stock price may be volatile, and the value of our common stock may decline.

The market price of our common stock may be highly volatile and may fluctuate or decline substantially as a result of a variety of factors, some of which are beyond our control or are related in complex ways, including:

- actual or anticipated fluctuations in our financial condition and results of operations;
- variance in our financial performance from expectations of securities analysts or investors;
- changes in the coverage decisions, reimbursement or pricing of our products;
- changes in our projected operating and financial results;
- changes in laws or regulations applicable to our products;
- announcements by us or our competitors of significant business developments, acquisitions, or new offerings;
- publicity associated with issues related to our products;

- our involvement in regulatory investigations or litigation;
- future sales of our common stock or other securities, by us or our stockholders, as well as the anticipation of lock-up releases;
- changes in senior management or key personnel;
- the trading volume of our common stock;
- changes in the anticipated future size and growth rate of our market;
- general economic, regulatory, and market conditions, including economic recessions or slowdowns;
- the impact of the COVID-19 pandemic;
- changes in the structure of healthcare payment systems; and
- developments or disputes concerning our intellectual property or other proprietary rights.

Broad market and industry fluctuations, as well as general economic, political, regulatory, and market conditions, may negatively impact the market price of our common stock. In addition, given the relatively small expected public float of shares of our common stock on the Nasdaq Global Market, the trading market for our shares may be subject to increased volatility. In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us, because medical device companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our reputation and our business.

There has been no prior market for our common stock. An active market may not develop or be sustainable and investors may not be able to resell their shares at or above the initial public offering price.

There has been no public market for our common stock prior to this offering. The initial public offering price for our common stock will be determined through negotiations between the underwriters and us and may vary from the market price of our common stock following this offering. If you purchase shares of our common stock in this offering, those shares may not be able to be resold at or above the initial public offering price, if at all. An active or liquid market in our common stock may not develop after this offering or, if it does develop, it may not be sustainable.

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

Our stock price and trading volume will be heavily influenced by the way analysts and investors interpret our financial information and other disclosures. If securities or industry analysts do not publish research or reports about our business, delay publishing reports about our business or publish negative or unfavorable reports about our business, regardless of accuracy, our common stock price and trading volume could decline.

The trading market for our common stock will depend, in part, on the research and reports that securities or industry analysts publish about us or our business. We do not have any control over these analysts. We expect that only a limited number of analysts will cover our company following our initial public offering. If the number of analysts that cover us declines, demand for our common stock could decrease and our common stock price and trading volume may decline.

Even if our common stock is actively covered by analysts, we do not have any control over the analysts or the measures that analysts or investors may rely upon to forecast our future results. Over-reliance by analysts or investors on any particular metric to forecast our future results may result in forecasts that differ significantly from our own.

Regardless of accuracy, unfavorable interpretations of our financial information and other public disclosures could have a negative impact on our stock price. If our financial performance fails to meet analyst estimates, for any of the reasons discussed above or otherwise, or one or more of the analysts who cover us downgrade our common stock or change their opinion of our common stock, our reputation may be adversely impacted and our stock price would likely decline.

As a result of being a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting and any failure to maintain the adequacy of these internal controls may negatively impact investor confidence in our company and, as a result, the value of our common stock.

We will be required pursuant to Section 404 of the Sarbanes-Oxley Act to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. In addition, our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting in our first annual report required to be filed with the Securities and Exchange Commission, or the SEC, following the date we are no longer an emerging growth company. We have not yet commenced the costly and challenging process of compiling the system and processing documentation necessary to perform the evaluation required under Section 404. We currently do not have an internal audit group, and we will need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge and compile the system and process documentation necessary to perform the evaluation needed to comply with Section 404. Any failure to maintain effective internal control over financial reporting could severely inhibit our ability to accurately report our financial condition or results of operations. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness in our internal control over financial reporting, our reputation could be negatively impacted, we could lose investor confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, we could be subject to sanctions or investigations by the Nasdaq Global Market, the SEC or other regulatory authorities and our access to the capital markets could be restricted in the future.

Our operating results may fluctuate across periods, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our quarterly and annual operating results may fluctuate across periods, which makes it difficult for us to predict our future operating results. Accordingly, the results of any one quarter or period should not be relied upon as an indication of future performance. Our quarterly and annual operating results may fluctuate due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the level of demand for our products and any future products, which may vary significantly from period to period;
- expenditures that we may incur to acquire, develop or commercialize additional products and technologies;
- the timing and cost of obtaining regulatory approvals or clearances to expand our indications and get future approvals of any future products or features;
- pricing pressures;
- our ability to expand the geographic reach of our commercial efforts;
- the degree of competition in our industry and any change in the competitive landscape of our industry, including consolidation among our competitors or future partners;
- coverage and reimbursement policies with respect to our products, and potential future products that compete with our products;
- the timing and success or failure of preclinical or clinical studies for expanding the indications of our RNS System or any future products we develop or competing products;

- positive or negative coverage in the media or clinical publications of our products or products of our competitors or our industry;
- the timing of customer orders or scheduling of implants using our products and the number of available selling days in any quarterly period, which can be impacted by holidays, the mix of products sold and the geographic mix of where products are sold, including any related foreign currency impact;
- the impact of COVID-19 on procedure volume or otherwise;
- the timing and cost of, and level of investment in, research, development, licenses, regulatory approval, commercialization activities, acquisitions and other strategic transactions, or other significant events relating to our products, which may change from time to time;
- the cost of manufacturing our products, which may vary depending on the quantity of production and the terms of our agreements with third-party suppliers; and
- future accounting pronouncements or changes in our accounting policies.

The cumulative effects of these factors could result in fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Further, our historical results are not necessarily indicative of results expected for any future period, and quarterly results are not necessarily indicative of the results to be expected for the full year or any other period. Investors should not rely on our past results as an indication of our future performance.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, it could harm our business, financial condition, and results or operations.

We will incur increased costs as a result of operating as a public company, and our management and board of directors will be required to devote substantial time to compliance with our public company responsibilities and corporate governance practices.

As a public company, we will incur significant legal, accounting, and other expenses that we did not incur as a private company. We expect such expenses to further increase after we are no longer an emerging growth company. The Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Global Market, and other applicable securities rules and regulations impose various requirements on public companies. Furthermore, most senior members of our management team as well as our board of directors do not have significant experience with operating a public company. As a result, our management, board of directors, and other personnel will have to devote a substantial amount of time to compliance with these requirements. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. We cannot predict or estimate the amount of additional costs we will incur as a public company or the timing of such costs.

We may become subject to numerous laws and regulations related to anti-bribery and anti-corruption laws, such as the FCPA and the U.K. Bribery Act, in which violations of these laws could result in substantial penalties and prosecution.

We currently do not market and sell our products outside the United States. However, if we choose to conduct business outside the United States, our business will be subject to various heavily-enforced anti-bribery and anti-corruption laws, such as the FCPA and similar laws around the world. These laws generally prohibit U.S. companies and their employees and intermediaries from offering, promising, authorizing or making improper payments to foreign government officials for the purpose of obtaining or retaining business or gaining any advantage. We face significant risks if we, which includes our third-party business partners and intermediaries, fail to comply with the FCPA or other anti-corruption and anti-bribery laws. In many foreign countries, particularly in countries with developing economies, it may be a local custom that businesses engage in practices that are prohibited by the FCPA

or other applicable laws and regulations. To that end, we may have to incur substantial costs to enhance our controls if we begin doing business outside the United States, and even so, such compliance measures ultimately may not be effective in prohibiting our employees, contractors, business partners, intermediaries or agents from violating or circumventing our policies and/or the law.

Responding to any enforcement action or related investigation may result in a significant diversion of management's attention and resources and significant defense costs and other professional fees. Any violation of the FCPA or other applicable anti-bribery, anti-corruption or anti-money laundering laws to which we become subject could result in whistleblower complaints, adverse media coverage, investigations, loss of export privileges, severe criminal or civil sanctions and, in the case of the FCPA, suspension or debarment from U.S. government contracts, which could harm our business, financial condition and results of operations.

We may acquire other businesses, which could require significant management attention, disrupt our business, dilute stockholder value and harm our results of operations.

As part of our business strategy, we may in the future make acquisitions or investments in complementary companies, products or technologies that we believe fit within our business model and can address the needs of our customers and the patients they serve. In the future, we may not be able to acquire and integrate other companies, products or technologies in a successful manner. We may not be able to find suitable acquisition candidates, and we may not be able to complete such acquisitions in an appropriate timeframe and on favorable terms, if at all. In addition, the pursuit of potential acquisitions may divert the attention of management and cause us to incur additional expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. If we do complete acquisitions, we may not ultimately strengthen our competitive position or achieve our goals, including increases in revenue, and any acquisitions we complete could be viewed negatively by management, as well as our employees, customers, investors and industry analysts.

Future acquisitions may reduce our cash available for operations and other uses and could result in amortization expense related to identifiable assets acquired. We may have to pay cash, incur debt or issue equity securities to pay for any such acquisition, each of which could adversely affect our financial condition or the value of our common stock. The sale or issuance of equity to finance any such acquisitions would result in dilution to our stockholders. The incurrence of indebtedness to finance any such acquisition would result in fixed obligations and could also include covenants or other restrictions that could impede our ability to manage our operations. In addition, our future results of operations may be harmed by the dilutive effect of an acquisition, performance earn-outs or contingent bonuses associated with an acquisition. Furthermore, acquisitions may require large, one-time charges and can result in increased debt or contingent liabilities, adverse tax consequences, additional stock-based compensation expenses and the recording and subsequent amortization of amounts related to certain purchased intangible assets, any of which items could negatively affect our future results of operations. We may also incur goodwill impairment charges in the future if we do not realize the expected value of any such acquisitions.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements about us and our industry that involve substantial risks and uncertainties. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations, financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” or “would,” or the negative of these words or other similar terms or expressions.

We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy and financial needs. These forward-looking statements are subject to a number of risks, uncertainties, factors and assumptions described in “Risk factors” and elsewhere in this prospectus, regarding, among other things:

- our expected future growth;
- the size and growth potential of the markets for our products, and our ability to serve those markets;
- our ability to accurately forecast demand for our products;
- our expectations regarding the impact of the COVID-19 pandemic on our sales, business, financial condition and results of operations;
- the rate and degree of market acceptance of our products;
- coverage and reimbursement for procedures performed using our products, including pre-implant evaluations, implant procedures, and follow-up care;
- the performance of third parties in connection with the manufacturing and development of our products, including single-source suppliers;
- regulatory developments in the United States and in any foreign countries in which we make seek to do business;
- our ability to retain regulatory approval for our products or obtain regulatory approval for new products or indications in the United States and in any foreign countries in which we make seek to do business;
- our research and development for existing products and new products;
- our reliance on third-party suppliers for product components, some of which are single source suppliers;
- our ability to manufacture our products in conformity with FDA requirements and with regulatory requirements of any foreign countries in which we make seek to do business;
- our ability to scale our organizational culture;
- the development, regulatory approval, efficacy and commercialization of competing products;
- our ability to retain and hire our senior management and operational personnel;
- our expectations regarding the period during which we will qualify as an emerging growth company under the JOBS Act and as a smaller reporting company under the federal securities laws;
- our ability to develop and maintain our corporate infrastructure, including our ability to remediate our existing material weakness and to design and maintain an effective system of internal controls;
- our use of the proceeds from this offering;

- our financial performance and capital requirements; and
- our expectations regarding our ability to obtain, maintain and enforce intellectual property protection for our products and technology, as well as our ability to operate our business without infringing, misappropriating or otherwise violating the intellectual property rights of others.

These risks are not exhaustive. Other sections of this prospectus may include additional factors that could harm our business and financial performance. New risk factors may emerge from time to time and it is not possible for our management to predict all risk factors, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in, or implied by, any forward-looking statements.

You should not rely on forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this prospectus primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition and operating results. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors, many of which are described in the section titled “Risk Factors” and elsewhere in this prospectus. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this prospectus. We undertake no obligation to update any forward-looking statements made in this prospectus to reflect events or circumstances after the date of this prospectus or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments.

In addition, statements that “we believe” or “we expect” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based on information available to us as of the date of this prospectus. While we believe that information provides a reasonable basis for these statements, that information may be limited or incomplete. Our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all relevant information. These statements are inherently uncertain, and investors are cautioned not to unduly rely on these statements.

You should carefully read, consider, and evaluate this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and achievements may be different from what we expect. We qualify all of our forward-looking statements by these cautionary statements.

MARKET AND INDUSTRY DATA

This prospectus contains estimates and information concerning our industry and our business, including estimated market size. Unless otherwise expressly stated, we obtained this industry, business, market, medical and other information from reports, research surveys, studies and similar data prepared by third parties, industry, medical and general publications, government data and similar sources.

This information involves a number of assumptions and limitations. Although we are responsible for all of the disclosure contained in this prospectus and we believe the market position, market opportunity and market size in this prospectus is reliable, we have not independently verified the accuracy or completeness of this third-party data. In addition, projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate are necessarily subject to a high degree of uncertainty and risk due to a variety of factors, including those described in “Risk factors.” These and other factors may cause results to differ materially from those expressed in these publications and reports.

USE OF PROCEEDS

We estimate that we will receive net proceeds from this offering of approximately \$75.6 million (or approximately \$87.4 million if the underwriters exercise their option to purchase an additional 796,950 shares in full), based on the assumed initial public offering price of \$16.00 per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by approximately \$4.9 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, an increase (decrease) of 1,000,000 shares of common stock offered by us would increase (decrease) the net proceeds to us from this offering by approximately \$14.9 million, assuming the assumed initial public offering price of \$16.00 per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purpose of this offering is to provide us with additional capital. We intend to use the net proceeds from this offering to expand our sales and marketing efforts, increase our research and development activities, conduct or sponsor clinical studies, expand internationally, and provide for working capital and other general corporate purposes. We will also use a portion of the net proceeds we receive from this offering to repay approximately \$4.0 million of principal indebtedness, plus any accrued interest, under our Paycheck Protection Program loan. We may use a portion of the net proceeds to acquire complementary products, technologies, intellectual property or businesses; however, we currently do not have any agreements or commitments to complete any such transactions and are not involved in negotiations regarding such transactions.

The approximately \$4.0 million of outstanding principal indebtedness, plus any accrued interest, under our Paycheck Protection Program loan that we will repay with the proceeds from this offering is scheduled to mature in April 2022 and interest on such amount accrues at a rate of 1.0% per year. See the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Paycheck Protection Program.”

We cannot predict with certainty all of the particular uses for the proceeds of this offering or the amounts that we will actually spend on the uses set forth above. Accordingly, our management will have broad discretion in applying the net proceeds of this offering. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business. We intend to invest the net proceeds to us from the offering that are not used as described above in interest-bearing, investment-grade instruments.

DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock and we do not currently intend to pay any cash dividends on our capital stock for the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and expansion of our business. Any future determination regarding the declaration and payment of dividends will be at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant. In addition, we have entered into, and may enter into agreements in the future, that contain restrictions on payments of cash dividends, including our New Term Loan.

CAPITALIZATION

The following table sets forth our cash and our capitalization as of December 31, 2020, on:

- an actual basis;
- a pro forma basis to give effect to: (i) the conversion of 16,614,178 shares of convertible preferred stock outstanding as of December 31, 2020 into an equal number of shares of common stock upon the closing of this offering; (ii) the issuance of 205,635 shares of Series B' convertible preferred stock upon the net exercise of outstanding warrants as of December 31, 2020 to purchase 346,823 shares of Series B' convertible preferred stock, with an exercise price of \$6.51339 per share, prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and the conversion of such shares of Series B' convertible preferred stock into an equal number of shares of common stock upon the closing of this offering; (iii) the reclassification of the Series B' convertible preferred stock warrant liability to total stockholders' deficit as the warrants will be net exercised, (iv) the issuance of 183 shares of common stock upon the net exercise of outstanding warrants as of December 31, 2020 to purchase 219 shares of common stock, with an exercise price of \$2.60 per share, prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus; and (v) the filing and effectiveness of our amended and restated certificate of incorporation upon the closing of this offering; and
- a pro forma as adjusted basis to give further effect to (i) the issuance and sale of 5,313,000 shares of common stock in this offering at the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us and (ii) the repayment of approximately \$4.0 million of principal indebtedness, plus any accrued interest, under our Paycheck Protection Program loan.

The pro forma and pro forma as adjusted information below is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should carefully read, consider, and evaluate this information in conjunction with our financial statements and the related notes included elsewhere in this prospectus, the information set forth in "Management's discussion and analysis of financial condition and results of operations" and other financial information contained elsewhere in this prospectus.

	As of December 31, 2020		
	Actual	Pro forma	Pro forma as adjusted ⁽¹⁾
<i>(in thousands, except share and per share data)</i>			
Cash, cash equivalents and short-term marketable debt securities	\$ 38,079	\$ 38,079	\$ 109,769
Short-term debt	\$ 2,043	\$ 2,043	\$ —
Long-term debt ⁽²⁾	50,821	50,821	48,787
Redeemable convertible preferred stock warrant liability	369	—	—
Redeemable convertible preferred stock, \$0.001 par value — 60,757,386 shares authorized, 16,614,178 shares issued and outstanding, actual; no shares authorized, issued, or outstanding, pro forma and pro forma as adjusted	141,422	—	—
Stockholders' (deficit) equity:			
Preferred stock, \$0.001 par value—no shares authorized, issued, or outstanding, actual; 10,000,000 shares authorized, no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	—
Common stock, \$0.001 par value — 74,636,348 shares authorized, 314,096 shares issued and outstanding, actual; 200,000,000 shares authorized, 17,134,092 shares issued and outstanding, pro forma; 200,000,000 shares authorized, 22,447,092 shares issued and outstanding, pro forma as adjusted	—	17	22
Additional paid-in capital	239,826	381,600	457,152
Accumulated other comprehensive (loss) income	33	33	33
Accumulated deficit	(387,691)	(387,691)	(387,691)
Total stockholders' (deficit) equity	\$ (147,832)	\$ (6,041)	\$ 69,516
Total capitalization	\$ 46,823	\$ 46,823	\$ 118,303

(1) Each \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) each of cash, cash equivalents, and short-term marketable debt securities, additional paid-in capital, total stockholders' equity and total capitalization by approximately \$4.9 million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, an increase (decrease) of 1,000,000 shares of common stock offered by us would increase (decrease) each of cash, cash equivalents, and short-term marketable debt securities, additional paid-in capital, total stockholders' equity and total capitalization by approximately \$14.9 million, assuming the assumed initial public offering price of \$16.00 per share of common stock, the midpoint of the price range set forth on the cover page of this prospectus, remains the same, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(2) Net of discount and issuance costs of \$1.4 million.

If the underwriters' option to purchase additional shares is exercised in full, our pro forma as adjusted cash, cash equivalents and short-term marketable debt securities, additional paid-in capital, total stockholders' equity, total capitalization and shares outstanding as of December 31, 2020 would be \$121.6 million, \$469.0 million, \$81.4 million, \$130.2 million and 23,224,042 shares, respectively.

The outstanding share information in the table above is based on 16,928,274 shares of common stock outstanding as of December 31, 2020 (including our convertible preferred stock on an as-converted basis), and excludes:

- Six shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2020 with a weighted-average exercise price of \$57.20 per share, under our 2009 Plan, which previously terminated and under which no new awards may be granted;
- 2,835,265 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2020 with a weighted-average exercise price of \$0.026 per share, under our 2020 Plan, which will expire upon the execution of the underwriting agreement in this offering;

- 241,428 shares of common stock issuable upon the exercise of outstanding stock options granted after December 31, 2020 under our 2020 Stock Plan, with a weighted-average exercise price of \$4.3283 per share;
- 818,889 shares of common stock available for issuance pursuant to future grants under our 2020 Plan, which shares will cease to be available for issuance at the time our 2021 Plan becomes effective;
- 2,900,000 shares of common stock reserved for issuance pursuant to future grants under our 2021 Plan, which will become effective upon the execution of the underwriting agreement for this offering, plus the number of shares subject to stock options or other stock awards that would have otherwise returned to our 2020 Stock Plan (such as upon the expiration or termination of a stock award prior to vesting), as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan;
- 143,076 shares of our common stock, based upon an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, issuable upon the exercise of options that we will grant under our 2021 Plan, effective immediately following the execution of the underwriting agreement related to this offering, to each of our non-employee directors at an exercise price equal to the initial public offering price of this offering;
- 580,000 shares of common stock reserved for future issuance under our ESPP, which will become effective upon the execution of the underwriting agreement for this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan;
- the net exercise of warrants to purchase 346,823 shares of Series B' convertible preferred stock, with an exercise price of \$6.51339 per share, outstanding as of December 31, 2020, prior to the closing of this offering that would otherwise expire upon the closing of this offering, which will result in the issuance of an aggregate of 205,635 shares of Series B' convertible preferred stock that will convert into an equal number of shares of common stock upon the closing of this offering (based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus); and
- the net exercise of warrants to purchase 219 shares of common stock, with an exercise price of \$2.60 per share, outstanding as of December 31, 2020, prior to the closing of this offering that would otherwise expire upon the closing of this offering, which will result in the issuance of an aggregate of 183 shares of common stock upon the closing of this offering (based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus).

DILUTION

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

As of December 31, 2020, our historical net tangible book deficit was \$148.3 million, or \$472.20 per share of common stock. Our historical net tangible book deficit represents our total tangible assets (total assets less deferred offering costs) less total liabilities and convertible preferred stock, and our historical net tangible book deficit per share is that number divided by the number of shares of common stock outstanding as of December 31, 2020.

As of December 31, 2020, our pro forma net tangible book deficit was \$6.5 million, or \$0.38 per share of common stock, after giving effect to (i) the conversion of all shares of convertible preferred stock outstanding as of December 31, 2020 into an aggregate of 16,614,178 shares of common stock upon the closing of this offering; (ii) the issuance of 205,635 shares of Series B' convertible preferred stock upon the net exercise of outstanding warrants as of December 31, 2020 to purchase 346,823 shares of Series B' convertible preferred stock, with an exercise price of \$6.51339 per share, prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, and the conversion of such shares of Series B' convertible preferred stock into an equal number of shares of common stock upon the closing of this offering; (iii) the reclassification of the Series B' convertible preferred stock warrant liability to total stockholders' deficit as the warrants will be net exercised, and (iv) the issuance of 183 shares of common stock upon the net exercise of outstanding warrants as of December 31, 2020 to purchase 219 shares of common stock, with an exercise price of \$2.60 per share, prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus. Pro forma net tangible book deficit per share represents pro forma net tangible book deficit divided by the total number of common shares outstanding as of December 31, 2020, after giving effect to the pro forma adjustments described above.

After giving further effect to the receipt of the net proceeds from our sale of 5,313,000 shares of common stock in this offering at an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us and the repayment of approximately \$4.0 million of principal indebtedness, plus any accrued interest, under our Paycheck Protection Program loan, our pro forma as adjusted net tangible book value as of December 31, 2020 would be \$69.5 million, or \$3.10 per share of common stock. This represents an immediate increase in pro forma as adjusted net tangible book value of \$3.48 per share to our existing stockholders and immediate dilution of \$12.90 in pro forma as adjusted net tangible book value per share to investors purchasing common stock in this offering.

The following table illustrates this dilution on a per share basis to investors in this offering, which is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors (without giving effect to any exercise by the underwriters of their option to purchase additional shares):

Assumed initial public offering price per share		\$	16.00
Historical net tangible book deficit per share as of December 31, 2020	\$	(472.20)	
Increase per share attributable to the pro forma adjustments described above		<u>471.82</u>	
Pro forma net tangible book deficit per share as of December 31, 2020		(0.38)	
Increase in pro forma net tangible book value per share attributed to investors purchasing shares in this offering		<u>3.48</u>	
Pro forma as adjusted net tangible book value per share after this offering	\$		3.10
Dilution per share to new investors purchasing common shares in this offering	\$		<u>12.90</u>

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted net tangible book value per share after this offering by approximately \$0.22 per share and dilution to new investors in this offering by approximately \$0.78 per share, assuming that the number of shares of common stock offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. An increase of 1,000,000 shares in the number of shares of common stock offered by us would increase the pro forma as adjusted net tangible book value by \$0.50 per share and the dilution to new investors in this offering would decrease by \$0.50 per share, assuming the assumed initial public offering price remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A decrease of 1,000,000 shares in the number of shares of common stock offered by us would decrease the pro forma as adjusted net tangible book value by \$0.55 per share and the dilution to new investors in this offering would increase by \$0.55 per share, assuming the assumed initial public offering price remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares in full, the pro forma as adjusted net tangible book value after the offering would be \$81.4 million per share, the increase in pro forma net tangible book value per share to existing stockholders would be \$0.40 per share and the dilution per share to new investors in this offering would be \$0.40 per share, in each case assuming an initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus.

The dilution information above is for illustration purposes only. Our pro forma as adjusted net tangible book value following the closing of this offering will depend on the actual initial public offering price and other terms of this offering determined at pricing.

The following table summarizes, as of December 31, 2020, on a pro forma basis:

- the total number of shares of common stock purchased from us by our existing stockholders and by investors purchasing shares in this offering;
- the total consideration paid to us by our existing stockholders and by investors purchasing shares in this offering, assuming an initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us in connection with this offering; and
- the average price per share paid by existing stockholders and by investors purchasing shares in this offering.

	Shares purchased		Total consideration		
	Number	Percent	Amount (in thousands)	Percent	Average price per share
Existing stockholders	17,134,092	76 %	\$ 152,091	64 %	\$ 8.88
New investors	5,313,000	24 %	\$ 85,008	36 %	\$ 16.00
Total	22,447,092	100 %	\$ 237,099	100 %	\$ 10.56

Except as otherwise indicated, the above discussion and tables assume no exercise of the underwriters' option to purchase additional shares. If the underwriters exercise their option to purchase an additional 796,950 shares in full, our existing stockholders would own 73.7% and investors in this offering would own 26.3% of the total number of shares of common stock outstanding upon the closing of this offering.

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$16.00 per share, the midpoint of the estimated offering price range set forth on the cover page of this prospectus, would increase (decrease), respectively, the total consideration paid by investors in this offering by \$5.3 million and increase (decrease), respectively, the total consideration paid by investors in this offering by 1.41%, assuming that the number of shares

offered by us, as set forth on the cover page of this prospectus, remains the same and before deducting estimated underwriting discounts and commissions.

The outstanding share information in the tables above is based on 16,928,274 shares of common stock outstanding as of December 31, 2020 (including our convertible preferred stock on an as-converted basis), and excludes:

- Six shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2020 with a weighted-average exercise price of \$57.20 per share, under our 2009 Plan, which previously terminated and under which no new awards may be granted;
- 2,835,265 shares of common stock issuable upon the exercise of outstanding stock options as of December 31, 2020 with a weighted-average exercise price of \$0.026 per share, under our 2020 Plan, which will expire upon the execution of the underwriting agreement in this offering;
- 241,428 shares of common stock issuable upon the exercise of outstanding stock options granted after December 31, 2020 under our 2020 Stock Plan with a weighted-average exercise price of \$4.3283 per share;
- 818,889 shares of common stock available for issuance pursuant to future grants under our 2020 Plan, which shares will cease to be available for issuance at the time our 2021 Plan becomes effective;
- 2,900,000 shares of common stock reserved for issuance pursuant to future grants under our 2021 Plan, which will become effective upon the execution of the underwriting agreement for this offering, plus the number of shares subject to stock options or other stock awards that would have otherwise returned to our 2020 Stock Plan (such as upon the expiration or termination of a stock award prior to vesting), as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan;
- 143,076 shares of our common stock, based upon an assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus, issuable upon the exercise of options that we will grant under our 2021 Plan, effective immediately following the execution of the underwriting agreement related to this offering, to each of our non-employee directors at an exercise price equal to the initial public offering price of this offering;
- 580,000 shares of common stock reserved for future issuance under our ESPP, which will become effective upon the execution of the underwriting agreement for this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan;
- the net exercise of warrants to purchase 346,823 shares of Series B' convertible preferred stock, with an exercise price of \$6.51339 per share, outstanding as of December 31, 2020, prior to the closing of this offering that would otherwise expire upon the closing of this offering, which will result in the issuance of an aggregate of 205,635 shares of Series B' convertible preferred stock that will convert into an equal number of shares of common stock upon the closing of this offering (based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus); and
- the net exercise of warrants to purchase 219 shares of common stock, with an exercise price of \$2.60 per share, outstanding as of December 31, 2020, prior to the closing of this offering that would otherwise expire upon the closing of this offering, which will result in the issuance of an aggregate of 183 shares of common stock upon the closing of this offering (based on the assumed initial public offering price of \$16.00 per share, the midpoint of the price range set forth on the cover page of this prospectus).

SELECTED FINANCIAL DATA

The statements of operations and comprehensive loss data for the years ended December 31, 2019 and 2020 and balance sheet data as of December 31, 2019 and 2020 have been derived from our audited financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected for any other period in the future. You should carefully read, consider, and evaluate the selected financial data set forth below in conjunction with our financial statements and the accompanying notes and the information in “Management’s discussion and analysis of financial condition and results of operations” contained elsewhere in this prospectus. The selected financial data included in this section are not intended to replace the financial statements and related notes included elsewhere in this prospectus.

(in thousands, except share and per share amounts)

	Year Ended December 31,	
	2019	2020
Statements of operations data:		
Revenue	\$ 36,972	\$ 41,138
Cost of goods sold	10,508	10,866
Gross profit	26,464	30,272
Operating expenses		
Research and development	18,294	15,695
Selling, general and administrative	30,201	27,628
Total operating expenses	48,495	43,323
Loss from operations	(22,031)	(13,051)
Interest income	261	41
Interest expense	(9,485)	(11,486)
Other income (expense), net	1,282	218
Net loss	\$ (29,973)	\$ (24,278)
Net loss per share attributable to common stockholders, basic and diluted ⁽¹⁾	\$ (148.44)	\$ (117.85)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	201,925	204,068
Pro forma net loss per share, basic and diluted (unaudited) ⁽¹⁾		\$ (1.74)
Weighted-average shares outstanding used in computing pro forma net loss per share, basic and diluted (unaudited)		11,101,089

- (1) See Note 12, “Net Loss per Share Attributable to Common Stockholders” to our financial statements included elsewhere in this prospectus for further information on the calculation of historical net loss per share attributable to common stockholders. The unaudited pro forma basic and diluted net loss per share for the year ended December 31, 2020, has been prepared to give effect to (1) an adjustment to the denominator in the pro forma basic and diluted net loss per share calculation to affect (a) the conversion of 8,234,768 shares of redeemable convertible preferred stock outstanding into an equal number of shares of common stock upon the closing of this offering as of the beginning of the period or the date of issuance, if later, (b) the assumed conversion of the Company’s outstanding 2019 and 2020 Convertible Notes into 8,379,410 shares of Series B’ redeemable convertible preferred stock, and the subsequent conversion to common stock on a one-to-one basis upon the closing of this offering as of the beginning of the period or the date of issuance, if later, (c) the issuance of 205,635 shares of Series B’ redeemable convertible preferred stock upon the net exercise of outstanding warrants to purchase 346,823 shares of Series B’ redeemable convertible preferred stock, with an exercise price of \$6.51339 per share, immediately prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price and the conversion of such shares of Series B’ redeemable convertible preferred stock into an equal number of shares of common stock upon the closing of this offering, reflected as of the beginning of the period or the date of issuance, if later, (d) the issuance of 183 shares of common stock upon the net exercise of outstanding warrants to purchase 219 shares of common stock, with an exercise price of \$2.60 per share, immediately prior to the closing of this offering, which warrants would otherwise expire upon the closing of this offering, based on the assumed initial public offering price reflected as of the beginning of the period or the date of issuance, if later, and (2) an adjustment to the numerator in the pro forma basic and diluted net loss per share calculation to (a) exclude the change in fair value resulting from the remeasurement of the Series B’ redeemable convertible preferred stock warrant liability, (b) exclude the change in fair value resulting from the remeasurement of the derivative instrument, and (c) remove the effect of the interest expense related to the 2019 and 2020 Convertible Notes, in each case, immediately prior to the closing of this offering as of the beginning of the period or the date of issuance, if later, and (d) remove the effect of the interest expense related to the Paycheck Protection Program loan.

(in thousands)

	As of December 31,	
	2019	2020
Balance sheet data:		
Cash and cash equivalents	\$ 4,123	\$ 26,390
Working capital ⁽¹⁾	(54,888)	44,967
Total assets	21,095	55,950
Short-term debt	44,162	2,043
Short-term convertible notes	18,637	—
Total liabilities	76,877	62,360
Convertible preferred stock	73,568	141,422
Accumulated deficit	(363,641)	(387,691)
Total stockholders' deficit	(129,350)	(147,832)

(1) We define working capital as current assets less current liabilities. See our audited financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

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

You should carefully read, consider, and evaluate the following discussion and analysis of our financial condition and results of operations together with the section titled "Selected Financial Data" and our audited financial statements and related notes thereto included elsewhere in this prospectus. This discussion and other parts of this prospectus contain forward-looking statements that involve risks and uncertainties, such as statements of our plans, objectives, expectations and intentions, which are based on the beliefs of our management, as well as assumptions made by, and information currently available to, our management. Our actual results could differ materially from those discussed in these forward-looking statements. Please also see the section of this prospectus titled "Special Note Regarding 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 prospectus titled "Risk Factors."

Overview

We are a commercial-stage medical device company focused on transforming the lives of people suffering from epilepsy by reducing or eliminating the occurrence of debilitating seizures. Our novel and differentiated RNS System is the first and only commercially available, brain-responsive neuromodulation system that delivers personalized, real-time treatment at the seizure source. By continuously monitoring the brain's electrical activity, recognizing patient-specific abnormal electrical patterns, and responding in real time with imperceptible electrical pulses to prevent seizures, our RNS System delivers the precise amount of therapy when and where it is needed and provides exceptional clinical outcomes with approximately three minutes of stimulation on average per day. Our RNS System is also the only commercially available device that records continuous brain activity data and allows clinicians to monitor patients not only in person, but also remotely, in order to make more informed treatment decisions, thus optimizing patient care. We believe the therapeutic advantages of our RNS System, combined with the insights obtained from our extensive brain data set, offer a significant leap forward in epilepsy treatment.

Our RNS System is currently indicated in the United States for use in adult epilepsy patients, or patients who are 18 years of age or older, with drug-resistant focal epilepsy. As of December 31, 2020, over 3,000 epilepsy patients have received our RNS System. We believe our compelling body of long-term clinical data, demonstrating continuous improvement in outcomes over time, will support the continued adoption of our RNS System among the approximately 575,000 adults in the United States with drug-resistant focal epilepsy. Over time, we plan to seek indication expansion more broadly for use across the entire approximately 1.2 million drug-resistant epilepsy patients in the United States and may additionally seek to expand our operations to reach the approximately 16.5 million drug-resistant epilepsy patients globally.

Our commercial efforts are focused on the comprehensive epilepsy centers, or Level 4 CECs, that facilitate appropriate care for drug-resistant epilepsy patients, including procedures for implantation of epilepsy neuromodulation devices such as our RNS System. While most drug-resistant epilepsy patients begin their care at physician offices or community hospitals, we estimate that approximately 24,000 adult drug-resistant focal epilepsy patients are treated in Level 4 CECs in the United States each year. We estimate that this patient pool represents an annual core market opportunity of approximately \$1.1 billion for initial RNS System implants, and we expect that it will continue to grow as the number of Level 4 CECs and epilepsy specialists increases, and as more patients are referred to these CECs. In addition, our RNS System currently has an average battery life of approximately eight years, which, through the sale of replacement neuromodulation devices, provides a recurring revenue stream that is additive to our current \$1.1 billion annual market opportunity for initial implants.

We received Pre-Market Approval, or PMA, from the FDA for our RNS System in late 2013 and began the commercial rollout of our RNS System in early 2014. We market our RNS System in the United States through a direct sales organization primarily to the epileptologists and neurosurgeons who respectively prescribe and implant neuromodulation devices in the approximately 200 Level 4 CECs in the United States. As of December 31, 2020, our commercial organization of 21 Therapy Consultants and 21 Field Clinical Engineers has established a significant account base at these Level 4 CECs. Given the concentrated and underpenetrated nature of our target market, we believe there is a significant opportunity to efficiently grow our account base, drive higher utilization within these

centers, and increase the number of drug-resistant patients referred to Level 4 CECs without significant salesforce expansion.

The implant procedure for our RNS System and the ongoing patient treatment provided by clinicians, including monitoring and programming, are reimbursed under well-established physician and hospital codes. In addition, we believe that our RNS System is currently the only neuromodulation system for epilepsy with reimbursement available for periodic in-person or remote review of brain activity data. Given the relatively young average age of our patient population, our payor mix has historically been more heavily weighted towards commercial payors. As of December 31, 2020, commercial payors have written positive coverage policies that address approximately 200 million covered lives in the United States. Medicare and Medicaid also routinely provide coverage for implantation of our RNS System and follow-up care. Based on our experience, less than 1% of potential RNS System patients have been unable to undergo an implant procedure with our RNS System due to lack of payor coverage. We believe the established, differentiated, and favorable reimbursement paradigm for our RNS System will continue to support its broad commercial adoption.

We currently manufacture our RNS System at and distribute all of our products from our approximately 53,000 square foot facility in Mountain View, California. This facility provides approximately 20,000 square feet of space for our production and distribution operations, including manufacturing, quality control and storage. We believe our existing facility will be sufficient to meet our current and near-term manufacturing needs.

Since our inception, we have generated significant losses. To date, we have financed our operations primarily through private placements of equity securities, debt financing arrangements and sales of our products. We generated revenue of \$41.1 million, with a gross margin of 73.6% and a net loss of \$24.3 million, for the year ended December 31, 2020, compared to revenue of \$37.0 million, with a gross margin of 71.6% and a net loss of \$30.0 million, for the year ended December 31, 2019. As of December 31, 2020, we had an accumulated deficit of \$387.7 million, cash, cash equivalents and short-term marketable debt securities of \$38.1 million, and \$52.9 million of outstanding term loans, net of debt discount and issuance costs. In January and March 2020, we raised \$7.1 million and \$5.4 million, respectively, through the sale and issuance of additional convertible notes. In August 2020, we received \$33.0 million in gross proceeds by issuing and selling 7,599,720 shares of our Series B' convertible preferred stock at a price of \$4.3423 per share. In addition, in connection with the Series B' offering, all of our outstanding convertible notes were converted into 8,379,410 shares of Series B' convertible preferred stock.

In September 2020, we entered into a new Term Loan Agreement, or the New Term Loan, with CRG Partners IV L.P. and its affiliates for total borrowings of up to \$60 million and borrowed \$50 million. We used the proceeds from the New Term Loan to repay the principal, interest, and fees due under the previously existing term loan. The remaining \$10.0 million will be available to us for borrowing until March 31, 2022, if we achieve a revenue-based milestone in 2021.

We have invested heavily and expect to continue to invest in research and development and commercial activities. These research and development expenses include clinical studies to demonstrate the safety and efficacy of our RNS System and obtain, as well as retain FDA approval. We intend to continue making significant investments in research and development, clinical studies and regulatory affairs to support future regulatory submissions for retaining and expanding indications of our RNS System, support continuous improvements to our RNS System, and develop future products that address neurological disorders. We have also made significant investments in building our field commercial team and intend to make significant investments in sales and marketing efforts in the future, including initiatives to drive awareness and increase the number of drug-resistant epilepsy patients referred to Level 4 CECs. Moreover, we expect to incur additional expenses associated with operating as a public company. We may in the future seek to acquire or invest in additional businesses, products, or technologies that we believe could complement or enhance our products, enhance our technical capabilities or otherwise offer growth opportunities, although we currently have no agreements or understandings with respect to any such acquisitions or investments. Because of these and other factors, we expect to continue to incur net losses and negative cash flows for the next several years. We may require additional funding to support operations and pay our obligations or may opportunistically seek to raise additional capital, which may include future equity or debt financings.

Recent Developments

Impact of the COVID-19 Pandemic

Since it was reported to have surfaced in December 2019, a novel strain of coronavirus (COVID-19) has spread across the world and has been declared a pandemic by the World Health Organization. Efforts to contain the spread of COVID-19 have been significant and governments around the world, including in the United States, have implemented severe travel restrictions, social distancing requirements, quarantines, stay-at-home orders and other significant restrictions. As a result, the current COVID-19 pandemic has presented a substantial public health and economic challenge and is affecting hospitals, physicians, patients, communities and business operations, as well as contributing to significant volatility and negative pressure on the U.S. and world economy and in financial markets.

The COVID-19 pandemic has negatively impacted our business, financial condition and results of operations by decreasing and delaying procedures performed to implant our RNS System, and we expect the pandemic will continue to negatively impact our business, financial condition and results of operations. Beginning in March 2020, our net sales were negatively impacted by the COVID-19 pandemic as hospitals delayed or canceled elective procedures, including because patients feared potential exposure. Many state and local governments in the U.S. issued orders that temporarily precluded elective procedures in order to conserve scarce health system resources in view of the pandemic and to protect patient health. The decrease in hospital admission rates and elective surgeries reduced the demand for elective procedures, including implantation of our RNS System. In addition, hospitals delayed or cancelled admissions for epilepsy diagnostic procedures which we believe has reduced and will continue to temporarily reduce our patient pipeline.

In response to the COVID-19 pandemic, we have implemented a variety of measures intended to help us manage its impact while maintaining business continuity to support our customers and patients. These measures include:

- Establishing safety protocols, facility enhancements, and work-from-home strategies to protect our employees;
- Ensuring that our manufacturing and supply chain operations remain intact and operational;
- Keeping our workforce intact, including our experienced and specialized U.S. sales and clinical support team;
- Developing new methods of supporting physicians remotely in their use of our RNS System;
- Implementing virtual physician training programs to support opening new accounts with minimal in person interaction;
- Continuing our physician education programs and direct-to-patient marketing efforts through social media and other virtual forums; and
- Increasing our capital resources through the issuance of our Series B' convertible preferred stock for gross proceeds of \$33.0 million in August 2020.

While our hospital customers began to gradually perform elective epilepsy procedures again during the second half of 2020, we saw another reduction in these procedures in late 2020 and early 2021. Although the growth of our business has slowed during the pandemic and we cannot give any assurance that the growth of our business will stabilize, we believe the recovery of our business in the second half of 2020 is an encouraging sign for when shelter-in-place and hospital limitations are lifted. We believe the following key indicators are contributing to the stabilization of our business:

- Strong physician participation in our virtual educational events;
- Expansion into new accounts;

- A significant patient pipeline;
- Hospitals accepting patients for elective procedures at closer to normal levels.

Despite the encouraging signs of recovery of our business, we believe the challenges resulting from COVID-19 will likely continue for the duration of the pandemic, which is uncertain, and will continue to impact our revenue and negatively impact our business, financial condition and results of operations while the pandemic continues. As a result, we cannot provide assurance that the increase in sales of our RNS System in the second half of 2020 compared to the first half of 2020 is indicative of future results or that we will not experience additional negative impacts associated with COVID-19, which could be significant. In particular, we believe the backlog of patients who cancelled or postponed their procedures in the second quarter of 2020 significantly contributed to the number of RNS Systems implanted in the third quarter of 2020 as hospitals began accepting patients for elective procedures again. We believe that we may see similar fluctuations as the impact of COVID-19 continues. In addition, due to the pandemic, our patient pipeline may be reduced temporarily due to a delay in the diagnostic procedures that are used to identify appropriate patients for our RNS System. Further, once the pandemic subsides, there may be a substantial backlog of patients seeking appointments with physicians and procedures to be performed at hospitals for a variety of medical conditions and, as a result, patients seeking treatment with our RNS System may have to navigate limited provider capacity. We believe this limited provider and hospital capacity could have a significant adverse effect on our business, financial condition and results of operations following the end of the pandemic. The extent to which the COVID-19 pandemic impacts our business will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity and spread of COVID-19 and the actions to contain the spread of COVID-19 or treat its impact, among others.

Our financial statements reflect judgments and estimates that could change in the future as a result of the COVID-19 pandemic.

Factors Affecting our Performance

We believe there are several important factors that have impacted and that we expect will continue to impact our business and results of operations. These factors include:

Clinician, Hospital and Patient Awareness and Acceptance of Our RNS System

Our goal is to establish our RNS System as a standard of care for drug-resistant epilepsy. We intend to continue to promote awareness of our RNS System through training and educating clinicians and epilepsy centers on the clinical benefits of our RNS System. In addition, we intend to publish additional clinical data in scientific journals and to continue presenting at medical conferences. We plan to continue building patient awareness through increasing direct-to-patient marketing initiatives, which include advertising, social media and online education. We also intend to continue supporting patient and referring clinician outreach efforts to help increase the number of patients with drug-resistant epilepsy being treated at Level 4 CECs. These efforts require significant investment by our marketing and sales organization. In order to grow our business within existing and new accounts, we will need to continue to make significant investments in educating clinicians, hospitals, and patients on the advantages of our RNS System for the treatment of drug-resistant epilepsy.

Our Ability to Retain Our Experienced Commercial Team and Increase its Productivity

We have made significant investments in, and will continue to invest in, recruiting, training and retaining our experienced and specialized direct sales team, which includes Therapy Consultants and Field Clinical Engineers. Significant education and training is required for our team to achieve the level of technical competency with our products that is expected by clinicians and to gain experience building demand for our RNS System. Upon completion of initial training, our personnel typically require time in the field to grow their network of accounts, build relationships with clinicians and increase their productivity to the levels we expect. We believe successfully training, developing and retaining our Therapy Consultants and Field Clinical Engineers will be required to achieve growth. In addition, the loss of any productive sales personnel would have a negative impact on our ability to grow our business.

Competition

Our industry is highly competitive and subject to rapid change from the introduction of new products and technologies and the marketing activities of industry participants. There are two primary treatment alternatives for adults with drug-resistant epilepsy: (i) an ablative or resective surgery; and (ii) implantation of a neuromodulation device. Within neuromodulation, we currently compete with two manufacturers of neuromodulation devices. These companies have longer operating histories, significantly greater resources and name recognition, and established relationships with physicians and hospitals that treat patients with epilepsy. In addition to competing for market share, we also compete against these companies for personnel, including qualified sales and other personnel that are necessary to grow our business.

Leveraging Our Manufacturing Capacity to Further Improve Our Gross Margin

With our current operating model and infrastructure, we believe that we have the capacity to significantly increase our manufacturing production. If we grow our revenue and sell more RNS Systems, our fixed manufacturing costs will be spread over more units, which we believe will reduce our manufacturing costs on a per-unit basis and in turn improve our gross margin. In addition, we intend to continue investing in manufacturing efficiencies in order to reduce our overall manufacturing costs. However, other factors will continue to impact our gross margin such as the cost of materials, components and subassemblies, pricing, procedure mix, and geographic sales mix to the extent that we commercialize our RNS System outside of the United States.

Investing in Research and Development, Including Clinical Studies, to Expand Our Addressable Market

We intend to continue investing in clinical studies and existing and next generation technologies to further improve our RNS System and clinical outcomes, enhance the patient and provider experience and broaden the patient population that can be treated with our RNS System. In addition, we are continuing to leverage our extensive database of iEEG data and our advanced data analysis capabilities to equip clinicians with the data they need to establish optimal program settings for each patient.

While research and development and clinical studies are time consuming and costly, we believe that a pipeline of product enhancements and new products that improve efficacy, safety and ease of use is important for supporting increased adoption of our RNS System.

Change in Procedure Mix Due to Longer Device Replacement Cycle

We derive revenue from sales of our RNS System to hospital facilities both for initial RNS System implant procedures and for replacement procedures when our implanted devices reach end of service. We launched our current neurostimulator model in 2018. This device has an average battery life of approximately eight years, twice as long as the battery life of our prior neurostimulator model. The longer battery life results in fewer replacement procedures over a patient's life time, providing a significant benefit to the patient. While our revenue from our replacement procedures represented approximately 32% of our total revenue for the year ended December 31, 2020, we expect that our revenue from replacement procedures will decrease over the next few years as a result of the extended replacement cycle of the newer device. In addition, a change in procedure mix between initial and replacement procedures may have a negative impact on our gross margin.

Components of Our Results of Operations

Revenue

We derive substantially all our revenue from sales of our RNS System to hospitals facilities (typically Level 4 CECs) that implant our RNS System. We currently deliver our RNS System to a hospital on the date of the scheduled procedure. There is no commitment to purchase our RNS System until the delivery of the product; the procedure may be canceled at any time.

Our revenue fluctuates primarily based on the volume of procedures performed and the procedure mix between initial and replacement implants. Our revenue also fluctuates and in the future will continue to fluctuate from

quarter-to-quarter due to a variety of factors, including the success of our sales force in expanding adoption of our RNS System in new accounts and the number of physicians who are aware of and prescribe our RNS System.

Cost of Goods Sold and Gross Margin

Cost of goods sold consists primarily of costs related to materials, components and subassemblies, payroll and personnel-related expenses for our manufacturing and quality assurance employees, including expenses related to stock-based compensation, manufacturing overhead, charges for excess, obsolete and non-sellable inventories, and royalties. Overhead costs include the cost of quality assurance, testing, material procurement, inventory control, operations supervision and management personnel, an allocation of facilities and information technology expenses, including rent and utilities, and equipment depreciation. Cost of goods sold also includes certain direct costs such as those incurred for shipping our RNS System. We record adjustments to our inventory valuation for estimated excess, obsolete and non-sellable inventories based on assumptions about future demand, past usage, changes to manufacturing processes and overall market conditions. We expect cost of goods sold to increase in absolute dollars as more of our RNS Systems are sold.

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, primarily by our manufacturing costs and pricing. Our gross margin may increase over the long term to the extent our production volume increases as our fixed manufacturing costs would be spread over a larger number of units, thereby reducing our per-unit manufacturing costs. We expect our gross margin to fluctuate from period to period, however, based upon the factors described above.

Operating Expenses

Our operating expenses consist of research and development costs and selling, general and administrative costs.

Research and Development Expenses

Our research and development activities primarily consist of engineering and research programs associated with our products under development and clinical studies. Research and development expenses include payroll and personnel-related costs for our research and development employees, including expenses related to stock-based compensation, consulting services, clinical trial expenses, regulatory expenses, prototyping, testing, materials and supplies, and allocated overhead including facilities and information technology expenses. Our clinical trial expenses include costs associated with clinical trial design, clinical trial site development and study costs, data management costs, related travel expenses, the cost of products used for clinical activities, and costs associated with our regulatory compliance. We expense research and development costs as they are incurred. We expect our research and development expenses to increase in absolute dollars as we hire additional personnel to develop new product offerings and product enhancements and conduct studies for expanded indications for use.

Selling, General and Administrative Expenses

Our selling, general and administrative expenses consist primarily of payroll and personnel-related costs for our sales and marketing personnel, including stock-based compensation and sales-based variable compensation, travel expenses, consulting, public relations costs, direct marketing, customer training, trade show and promotional expenses and allocated facility and information technology expenses, and for administrative personnel that support our general operations such as executive management, information technology, finance, accounting, customer services, human resources and legal personnel. We expense sales variable compensation when revenue related to the underlying sale is recognized. Selling, general and administrative expenses also include costs attributable to professional fees for legal, accounting and tax services, insurance and recruiting fees.

We intend to continue to increase our marketing spending to support increased adoption of our RNS System. We expect our sales and marketing expenses to increase in absolute dollars as we add programs in order to more fully penetrate the market opportunity. We expect our administrative expenses, including stock-based compensation expense, to increase as we increase our headcount and expand our systems to support our operations as a public company. Additionally, we anticipate increased expenses related to audit, legal, regulatory and tax-related services associated with being a public company, compliance with exchange listing and Securities and Exchange

Commission (SEC) requirements, director and officer insurance premiums and investor relations costs. Our selling, general and administrative expenses may fluctuate from period to period as we continue to grow.

Interest Expense and Income

Interest expense consists primarily of interest expense related to our term loan facilities and convertible notes, including amortization of debt discount and issuance costs. Interest income is predominantly derived from investing surplus cash in money market funds and short-term marketable debt securities.

Other Income (Expense), Net

Other income (expense), net primarily consists of changes in the fair value of our derivative instrument and redeemable convertible preferred stock warrant liability.

Results of Operations

Comparison of the Years Ended December 31, 2019 and 2020

The following table summarizes our results of operations for the periods indicated (in thousands):

	Years Ended December 31,		Change	% Change
	2019	2020		
Revenue	\$ 36,972	\$ 41,138	\$ 4,166	11 %
Cost of goods sold	10,508	10,866	358	3 %
Gross profit	26,464	30,272	3,808	14 %
Operating expenses				
Research and development	18,294	15,695	(2,599)	(14)%
Selling, general and administrative	30,201	27,628	(2,573)	(9)%
Total operating expenses	48,495	43,323	(5,172)	(11)%
Loss from operations	(22,031)	(13,051)	8,980	(41)%
Interest income	261	41	(220)	(84)%
Interest expense	(9,485)	(11,486)	(2,001)	21 %
Other income (expense), net	1,282	218	(1,064)	(83)%
Net loss	\$ (29,973)	\$ (24,278)	\$ 5,695	(19)%

Revenue

Revenue increased by \$4.2 million, or 11%, to \$41.1 million during the year ended December 31, 2020, compared to \$37.0 million during the year ended December 31, 2019. The increase in revenue was due to an increase in the number of units sold for the year ended December 31, 2020 as compared to the year ended December 31, 2019. All of our revenue was generated from sales in the United States.

Cost of Goods Sold and Gross Margin

Cost of goods sold increased by \$0.4 million, or 3%, to \$10.9 million during the year ended December 31, 2020, compared to \$10.5 million during the year ended December 31, 2019. The cost of goods sold consists of the cost of materials, components and subassemblies used in manufacturing our RNS System, payroll and personnel-related expenses, including expenses related to stock-based compensation, allocated facilities and information technology overhead costs, expenses related to excess, obsolete and non-sellable inventories, royalties, and the costs of supplies, equipment depreciation, shipping and other expenses. The increase was primarily due to growth in sales volume, partially offset by manufacturing efficiencies and cost reductions we implemented as a result of the COVID-19 pandemic. Our gross margin increased from 71.6% for the year ended December 31, 2019 to 73.6% for the year ended December 31, 2020. The increase in gross margin was primarily due to a reduction in the cost of our RNS neurostimulators as a result of our ongoing efforts to lower manufacturing costs.

Research and Development Expenses

Research and development expenses decreased by \$2.6 million, or 14%, to \$15.7 million during the year ended December 31, 2020, compared to \$18.3 million during the year ended December 31, 2019. The decrease in research and development expenses was primarily due to a decrease of \$0.8 million in payroll and personnel-related expenses primarily due to COVID-19 expense reduction efforts, a decrease of \$1.0 million in product development costs, including contractors, materials, and technical equipment, a decrease of \$0.3 million in costs associated with clinical monitoring and research, and a decrease of \$0.2 million in costs associated with our clinical studies.

Selling, General and Administrative Expenses

Selling, general and administrative expenses decreased by \$2.6 million, or 9%, to \$27.6 million during the year ended December 31, 2020, compared to \$30.2 million during the year ended December 31, 2019. The decrease in selling, general and administrative expenses was primarily due to a decrease of \$1.7 million in sales and field support costs including travel related expenses, a decrease of \$1.7 million in marketing costs including contractors, advertising, marketing collateral and travel related costs, a decrease of \$0.7 million in general and administrative costs including outside services, legal expenses, and recruiting related expenses, in each case primarily due to COVID-19 expense reduction efforts. The decreases were offset in part by an increase of \$1.5 million in payroll and personnel-related expenses primarily due to the adoption of new and updated incentive programs and an increase of \$0.2 million in allocated facilities related expenses, including rent, depreciation, information technology costs and utilities.

Interest Expense and Income

Interest expense increased by \$2.0 million, or 21%, to \$11.5 million during the year ended December 31, 2020, compared to \$9.5 million during the year ended December 31, 2019 primarily due to higher average balances of our convertible notes and term loans during 2020 compared to 2019. Interest income decreased by \$0.2 million for the year ended December 31, 2020 compared to the year ended December 31, 2019, which was primarily due to a decrease of average balances of our money market funds and short-term marketable debt securities during 2020 compared to 2019.

Other Income (Expense), net

Other income (expense), net decreased by \$1.1 million, or 83%, to \$0.2 million during the year ended December 31, 2020, compared to \$1.3 million during the year ended December 31, 2019, which was primarily due to decreases in other income resulting from the change in fair value of derivative instrument.

Selected Quarterly Results of Operations

The following table sets forth selected unaudited quarterly statements of operations data for each of the quarters in the years ended December 31, 2019 and December 31, 2020. The information for each of these quarters has been prepared in accordance with U.S. generally accepted accounting principles, or GAAP, and on the same basis as our audited financial statements included elsewhere in this prospectus and, in the opinion of management, reflect all adjustments, which include only normal and recurring adjustments, necessary for the fair statement of our results of operations. This data should be read in conjunction with our financial statements and related notes included

elsewhere in this prospectus. These historical unaudited quarterly operating results are not necessarily indicative of our operating results for the full year or any future period.

(in thousands)	Three Months Ended							
	March 31, 2019	June 30, 2019	September 30, 2019	December 31, 2019	March 31, 2020	June 30, 2020	September 30, 2020	December 31, 2020
Revenue	\$ 8,296	\$ 9,016	\$ 9,755	\$ 9,905	\$ 9,975	\$ 7,640	\$ 12,771	\$ 10,7
Cost of goods sold	2,491	2,347	2,713	2,957	2,918	2,219	3,196	2,5
Gross profit	5,805	6,669	7,042	6,948	7,057	5,421	9,575	8,2
Operating expenses								
Research and development	4,362	4,441	4,602	4,889	4,833	3,252	3,691	3,5
Selling, general and administrative	6,357	7,509	7,796	8,539	7,682	5,615	7,050	7,2
Total operating expenses	10,719	11,950	12,398	13,428	12,515	8,867	10,741	11,2
Loss from operations	(4,914)	(5,281)	(5,356)	(6,480)	(5,458)	(3,446)	(1,166)	(2,9
Interest income	44	93	52	72	10	6	4	
Interest expense	(1,744)	(2,332)	(2,481)	(2,928)	(2,998)	(3,813)	(2,792)	(1,8
Other income (expense), net	—	497	104	681	1,705	(1,540)	(172)	2
Net loss	\$ (6,614)	\$ (7,023)	\$ (7,681)	\$ (8,655)	\$ (6,741)	\$ (8,793)	\$ (4,126)	\$ (4,6

Liquidity and Capital Resources

To date, we have financed our operations primarily through private placements of equity securities, debt financing arrangements and sales of our RNS System. As of December 31, 2020, we had cash, cash equivalents and short-term marketable debt securities of \$38.1 million, an accumulated deficit of \$387.7 million, and \$52.9 million outstanding under the New Term Loan and PPP Loan, net of debt discount and issuance costs. In January and March 2020, we received \$7.1 million and \$5.4 million, respectively, in gross proceeds through the sale and issuance of additional convertible notes, or the 2020 Convertible Notes. In August 2020, we received \$33.0 million in gross proceeds from the sale and issuance of our Series B' convertible preferred stock. In September 2020, we entered into the New Term Loan for total borrowings of up to \$60 million and borrowed \$50 million. We used the proceeds from the New Term Loan to repay principal of \$44.1 million, interest of \$1.3 million and fees of \$2.2 million due under the outstanding Term Loan.

2014 Term Loan

In November 2014, we entered into a Term Loan Agreement, as amended, for total borrowings of up to \$40.0 million with Capital Royalty Partners II L.P. and its affiliates. As of December 31, 2019, \$40.0 million had been funded under this Term Loan Agreement, or the Term Loan. The Term Loan bore interest at a rate of 12.5% per annum based on a 360-day year and actual days elapsed. Payments under the Term Loan were to be made quarterly with payment dates fixed at the end of each calendar quarter, or the Payment Dates. Through September 30, 2017, we had the option to pay interest as follows: 8.0% per annum paid in cash and 4.5% per annum paid-in-kind, or the PIK, by increasing the principal of the loan. On each Payment Date through September 30, 2016, we elected the PIK option, issuing PIK notes totaling \$2.7 million. On each Payment Date from December 31, 2016 through December 31, 2019, we paid all interest due in cash.

The Term Loan was interest-only through September 30, 2019. Following the interest-only period, principal payments were to be made in equal installments at the end of the next four calendar quarters, with the final payment due on September 30, 2020. The Term Loan included a fee upon repayment of the loan equal to 5% of the aggregate principal amount being prepaid or repaid. We ratably accreted the fee over the life of the loan.

In connection with the Term Loan, we paid total closing fees of \$0.8 million and issued warrants to purchase 219 shares of our Series I convertible preferred stock at \$1,866.80 per share. The initial fair value of the warrants was \$0.3 million and resulted in a discount to the Term Loan, which was amortized to interest expense over the life of the loan using the effective interest method. Prior to 2019, these warrants were modified to be exercisable for 219 shares of common stock at \$2.60 per share, all of which were outstanding as of December 31, 2020.

In October 2019, the Term Loan was amended to extend the interest-only period through December 31, 2019. Further, through June 2020, the Term Loan was amended to extend the interest-only period through June 30, 2020 and to allow us to pay such interest entirely in kind by adding it to the aggregate principal of the loan. We paid \$1.4 million interest due on March 31, 2020 in kind and paid \$1.4 million interest due on June 30, 2020 in cash. In September 2020, we repaid the entire obligation under the Term Loan using the proceeds received from the New Term Loan.

The Term Loan contained customary representations and warranties, covenants, events of default and termination provisions. The affirmative covenants included, among other things, that we were required to achieve minimum annual revenue thresholds and maintain a minimum balance of cash and cash equivalents. As of December 31, 2019, we were in compliance with all applicable covenants of the Term Loan.

2019 and 2020 Convertible Notes

In March and September 2019, we issued convertible notes, or the 2019 Convertible Notes, to certain investors for aggregate proceeds of \$21.3 million. In January and March 2020, we raised \$7.1 million and \$5.4 million, respectively, through the sale and issuance of additional convertible notes, or the 2020 Convertible Notes. Proceeds received from the issuance of 2020 Convertible Notes were used to fund operating expenses and other liquidity needs. The 2019 and 2020 Convertible Notes were subordinated to the Term Loan, bore a simple interest on the outstanding principal amount at the rate of 8.0% per annum and had a maturity date of December 31, 2020. In connection with the sale and issuance of our Series B' convertible preferred stock, our 2019 and 2020 Convertible Notes converted into shares of our Series B' convertible preferred stock.

The 2019 and 2020 Convertible Notes contained embedded derivative instruments, including automatic conversion into equity securities upon completion of a Qualified Financing, that were required to be bifurcated and accounted for separately as a single derivative instrument initially and were subsequently measured at fair value with the change in fair value recorded in other income (expense), net in the statements of operations and comprehensive loss. The issuance date estimated fair values of the derivative instruments related to the March and September 2019 Convertible Notes were \$4.1 million and \$1.9 million, respectively, which were recorded as debt discounts. The issuance date estimated fair values of the derivative instruments related to the January and March 2020 notes were \$1.0 million and \$0.7 million, respectively, which were recorded as debt discounts. In August 2020, the derivative instrument was extinguished in connection with the issuance of Series B' redeemable convertible preferred stock.

The discount on the 2019 and 2020 Convertible Notes was amortized over the contractual term ending on December 31, 2020, using the effective interest method. The annual effective interest rate was estimated from 10.8% to 12.2% per year. Interest expense for the year ended December 31, 2019 was \$3.3 million, consisting of \$1.1 million of contractual interest expense and \$2.2 million in amortization of debt discount arising from separation of the embedded derivative instrument. The interest expense for the year ended December 31, 2020 was \$4.6 million, consisting of \$1.4 million of contractual interest expense and \$3.2 million amortization of debt discount arising from separation of the embedded derivative instrument.

Series B' convertible preferred stock

In August 2020, we received gross proceeds of \$33.0 million by issuing and selling 7,599,720 shares of our Series B' convertible preferred stock at a price of \$4.3423 per share. All outstanding convertible notes and accrued unpaid interest were converted into 8,379,410 shares of Series B' convertible preferred stock at such price. The conversion of the 2019 and 2020 Convertible Notes into shares of Series B' convertible preferred stock was accounted for as a debt extinguishment with \$4.1 million extinguishment gain recognized as a deemed capital contribution to additional paid-in capital in the quarter ended September 30, 2020, as the holders of the notes were existing stockholders of the Company.

2020 Term Loan

In September 2020, we entered into the New Term Loan with CRG Partners IV L.P. and its affiliates for total borrowings of up to \$60 million and borrowed \$50 million. We used the proceeds from the New Term Loan to repay principal of \$44.1 million, interest of \$1.3 million and fees of \$2.2 million due under the outstanding Term Loan. The remaining \$10.0 million will be available to us for borrowing until March 31, 2022 if we achieve a revenue-based milestone in 2021. The borrowings under the New Term Loan are secured by substantially all of our properties, rights and assets, including intellectual property.

The loan bears interest at a rate of 12.5% per year. Payments under the loan are made quarterly with payment dates fixed at the end of each calendar quarter. The loan is interest-only through September 30, 2023. Following the interest-only period, principal payments are made in equal installments at the end of the next eight calendar quarters, with the final payment due on September 30, 2025. We will have the option and intend to extend the interest-only period through September 30, 2025 upon completion of this offering. The New Term Loan includes a fee upon repayment of the loan equal to 10% of the aggregate principal amount being prepaid or repaid.

We paid \$1.0 million in fees to the lender and third parties which is reflected as a discount on the loan and is being accreted over the life of the loan using the effective interest method.

Paycheck Protection Program

In April 2020, we received \$4.0 million from a federal Small Business Administration loan under the Paycheck Protection Program. The note bears interest at 1.0% per year on the outstanding principal amount and matures 24 months from the date of the note. Payments of principal and interest are due from September 2021 through April 2022. We intend to use a portion of the proceeds from this offering to repay this loan.

Future Funding Requirements

We expect to incur continued expenditures in the future in support of our commercialization efforts in the United States. In addition, we intend to continue to make investments in clinical studies, development of new products, and other ongoing research and development programs. We also expect to incur additional costs associated with operating as a public company. We may incur additional expenses to expand our commercial organization and efforts, further enhance our research and development efforts and pursue commercial opportunities outside of the United States.

As of December 31, 2020, we had cash, cash equivalents and short-term marketable debt securities of \$38.1 million. We have concluded that our history of recurring losses and negative cash flows raise substantial doubt about our ability to continue as a going concern. See Note 1 to our audited financial statements included elsewhere in this prospectus for additional information on our assessment. Similarly, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements as of and for the year ended December 31, 2020, describing the existence of substantial doubt about our ability to continue as a going concern. However, based on our current planned operations, we expect that our cash and cash equivalents, together with the funding received in 2020 and the anticipated proceeds of this offering, will enable us to fund our operating expenses for at least 12 months following the date of this offering. We have based these estimates on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect.

Because of the numerous risks and uncertainties associated with research, development and commercialization of medical devices, we are unable to estimate the exact amount of our working capital requirements. Our future funding requirements will depend on many factors, including:

- the costs of activities related to commercializing and marketing our RNS System in the United States and elsewhere, and manufacturing and distribution costs;
- the research and development activities we intend to undertake, including clinical studies and product enhancements that we intend to pursue;
- the impact of the COVID-19 pandemic on our business;

- the cost of obtaining maintaining, defending, enforcing, and protecting any patents and other intellectual property rights;
- whether or not we pursue acquisitions or investments in businesses, products or technologies that are complementary to our current business;
- the degree and rate of increased market acceptance of our RNS System in the United States and market acceptance elsewhere;
- our need to implement additional infrastructure and internal systems;
- our ability to hire additional personnel to support our operations as a public company; and
- the emergence of competing technologies or other adverse market developments.

If we do raise additional capital through public or private equity or convertible debt offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we are unable to raise capital when needed, we will need to delay, limit, reduce or terminate planned commercialization or product development activities in order to reduce costs. In addition, COVID-19 has negatively impacted our business by decreasing and delaying procedures performed to implant our RNS System, and we expect the pandemic will continue to negatively impact our business, which may negatively impact our future liquidity.

Summary Statements of Cash Flows

The following table sets forth the primary sources and uses of cash and cash equivalents for the periods presented below (in thousands):

	Year Ended December 31,	
	2019	2020
Net cash provided by (used in):		
Operating activities	\$ (25,026)	\$ (21,609)
Investing activities	3,618	(10,767)
Financing activities	21,370	55,009
Net decrease in cash and cash equivalents	<u>\$ (38)</u>	<u>\$ 22,633</u>

Cash Flows Used in Operating Activities

Net cash used in operating activities was \$21.6 million for the year ended December 31, 2020. Cash used in operating activities was primarily a result of the net loss of \$24.3 million, adjusted for non-cash charges of \$8.8 million, change in operating assets and liabilities of \$2.1 million and payment of PIK interest of \$4.1 million on repayment of our term loan. The non-cash charges primarily consisted of \$3.5 million of amortization of debt discount and issuance costs and \$3.4 million of non-cash interest expense related to our term loans and convertible notes, and \$1.4 million of stock-based compensation. The change in operating assets and liabilities was due to an increase in accounts receivable of \$2.4 million largely due to revenue growth, and a decrease in accrued liabilities of \$0.7 million, offset by a decrease in inventories of \$0.7 million largely due to an increase in finished goods. The decrease in accrued liabilities was primarily the result of the timing of payments to our vendors.

Net cash used in operating activities was \$25.0 million for the year ended December 31, 2019. Cash used in operating activities was primarily a result of the net loss of \$30.0 million, adjusted for non-cash charges of \$4.9 million and an immaterial change in operating assets and liabilities. The non-cash charges primarily consisted of \$2.4 million of amortization of debt discount and issuance costs and \$1.6 million of non-cash interest expense related to our Term Loan and convertible notes, and \$1.4 million of stock-based compensation, offset in part by \$1.3

million in change in fair value of derivative instrument. The change in operating assets and liabilities was due to an increase in inventories of \$1.6 million largely due to an increase in finished goods, an increase in accounts receivable of \$0.8 million largely due to revenue growth, and an increase in prepaid expenses and other assets of \$0.5 million, offset by an increase in accrued liabilities of \$2.3 million, and an increase in deferred rent of \$0.7 million due to due to amending our facility lease agreement. The increase in accrued liabilities and prepaid expenses and other assets were primarily the result of the timing of payments to our vendors.

Cash Flows Provided by (Used in) Investing Activities

Net cash used in investing activities was \$10.8 million for the year ended December 31, 2020, which consisted of purchases of marketable debt securities of \$17.0 million and purchases of property and equipment of \$0.1 million, which amounts were partially offset by proceeds from sale of marketable debt securities of \$6.3 million.

Net cash provided by investing activities was \$3.6 million for the year ended December 31, 2019, which consisted of proceeds from sale of marketable debt securities of \$22.1 million, which amounts were partially offset by purchases of marketable debt securities of \$18.0 million and purchases of property and equipment of \$0.5 million.

Cash Flows Provided by Financing Activities

Net cash provided by financing activities was \$55.0 million for the year ended December 31, 2020, which primarily relates to proceeds of \$53.4 million from the New Term Loan and PPP Loan, net of lender fees and costs, proceeds of \$12.5 million from the issuance of convertible notes, proceeds of \$31.7 million from the issuance of Series B' redeemable convertible preferred stock, partially offset by repayment of the Term Loan of \$42.1 million, payment of debt issuance costs of \$0.2 million and payment of deferred offering costs of \$0.2 million.

Net cash provided by financing activities was \$21.4 million for the year ended December 31, 2019, which primarily relates to proceeds of \$21.3 million from the issuance of convertible notes.

Contractual Obligations and Commitments

The following table summarizes our contractual obligations as of December 31, 2020 (in thousands):

	Payments Due by Period				Total
	Less than 1 year	1-3 years	3-5 years	More than 5 years	
Operating lease obligations ⁽¹⁾	\$ 3,379	\$ 8,105	\$ —	\$ —	\$ 11,484
Debt obligations ⁽²⁾	8,380	50,331	24,931	—	83,642
Total contractual obligations	\$ 11,759	\$ 58,436	\$ 24,931	\$ —	\$ 95,126

(1) We lease our office and manufacturing facilities in Mountain View, California under a non-cancelable operating lease which expires in June 2024. We have an option to extend the lease through June 2029. The minimum lease payments above do not include any related common area maintenance charges or real estate taxes.

(2) In September 2020, we entered into the New Term Loan and borrowed \$50 million and paid off in full all amounts outstanding under the Term Loan. In April 2020, we received \$4.0 million from a federal Small Business Administration loan under the Paycheck Protection Program.

We enter into contracts with third parties in the normal course of business, including with suppliers of components and subassemblies used in manufacturing our RNS System and for other products and services used for operating purposes. These contracts generally provide for termination following a certain period after notice, and therefore we believe that our non-cancelable obligations under these agreements are not material.

Off-Balance Sheet Arrangements

Since our inception, we have not engaged in any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Critical Accounting Policies, Significant Judgments and Use of Estimates

Our financial statements have been prepared in accordance with GAAP. The preparation of our financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses incurred during the reporting periods. Our estimates are based on our knowledge of current events and actions we may undertake in the future 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 materially differ from these estimates under different assumptions or conditions. 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. For more detail on our significant accounting policies, refer to Note 2 to the financial statements appearing elsewhere in this prospectus.

Revenue Recognition

We derive substantially all our revenue from sales of our RNS System to hospitals facilities (typically Level 4 CECs) that implant our RNS System.

On January 1, 2019, we adopted Accounting Standards Codification, or ASC, Topic 606, "Revenue from Contracts with Customers," using the modified retrospective method. Under ASC 606, revenue is recognized when a customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, we perform the following five steps:

- (i) identify the contract(s) with a customer;
- (ii) identify the performance obligations in the contract;
- (iii) determine the transaction price;
- (iv) allocate the transaction price to the performance obligations in the contract; and
- (v) recognize revenue when (or as) the entity satisfies a performance obligation.

A contract with a customer exists when (i) we enter into a legally enforceable contract with a customer that defines each party's rights regarding the products or services to be transferred and identifies the payment terms related to these products or services, (ii) the contract has commercial substance, and (iii) we determine that collection of substantially all consideration for products or services that are transferred is probable based on the customer's intent and ability to pay the promised consideration.

At contract inception, we assess the products or services promised within each contract and determine those that are performance obligations and assess whether each promised product or service is distinct. Our contracts with customers often include a promise to transfer products, as well as an implied promise to provide a service to the customer, which is access to our Patient Data Management System, or PDMS. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. We evaluate each product or service promised in a contract to determine whether it represents a distinct performance obligation. A performance obligation is distinct if (i) the customer can benefit from the product or service on its own or with other resources that are readily available to the customer, and (ii) the product or service is separately identifiable from other promises in the contract.

Our RNS System is a compilation of our products that includes our RNS neurostimulator, our cortical strip leads and depth leads, and our Patient Remote Monitor, as well as other implantable and non-implantable accessories. In addition, our products also include external components such as our Physician Tablet, which is used by clinicians to retrieve and review information from and program the implanted devices, as well as access to our PDMS, a secure online database that collects data transmitted from our Patient Remote Monitor and our Physician Tablet. We have determined that our RNS System and our Physician Tablet are not capable of being distinct as they

are not sold separately, the customer cannot benefit from the products individually, and there are no other resources readily available to the customer. The products are highly interdependent and we are not able to fulfill each promise in the contract independently of the others. Therefore, we have concluded that our RNS System and our Physician Tablet represent a single performance obligation. We have determined that access to our PDMS is capable of being distinct because clinicians can utilize it with other components of the RNS System that are readily available, and it is separately identifiable from other promises in the contract. Therefore, we have concluded that access to our PDMS represents a separate performance obligation. In addition, training services generally occur prior to entering into a contract with the customer and therefore the training services are not considered to be a separate performance obligation.

We determine the transaction price based on the amount we expect to be entitled to in exchange for transferring the promised product to the customer, which is based on the invoiced price for the products. All prices are at fixed amounts per the sales agreement with the customer and there are no discounts, rebates or other price concessions or a right of return.

When a contract contains multiple performance obligations, we allocate the transaction price to each performance obligation based on its relative standalone selling price. Standalone selling prices are based on observable prices at which we separately sell our products or services. If a standalone selling price is not directly observable, we estimate the standalone selling price considering market data, cost, gross margin, and other available information.

We deliver our products to a hospital on the date of the scheduled procedure. There is no commitment or contract until the delivery of the product and the procedure may be canceled at any time. Once the device has been implanted in or otherwise provided to a patient, the customer is considered to have accepted the delivery (i.e., has approved the contract) and both parties are committed to perform their respective obligations. Assuming all other revenue recognition criteria are met, we recognize revenue from the sale of our products at a point in time when the procedure is completed and the device is implanted in a patient. We recognize service revenue related to our PDMS on a ratable basis over the period in which we expect to provide access to clinicians. We have concluded that the service revenue is immaterial.

We recognize revenue for arrangements where we have satisfied our performance obligations but have not issued invoices. These amounts are recorded as unbilled receivables, which are included in accounts receivable on the balance sheet, as we have an unconditional right to payment at the end of the applicable period.

Payment terms are typically 30 days from the fulfillment of the orders and fall within the one-year guidance for the practical expedient which allows us to forgo adjustment of the promised amount of consideration for the effects of a significant financing component. We account for sales taxes that we collect from customers and remit to governmental authorities on a net basis and therefore they are excluded from net sales; however, most of our sales are tax exempt. We believe that collection is probable as we have no history of uncollectible accounts and the customers are large, creditworthy institutions.

As allowed under the practical expedient, we do not disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less. Costs associated with product sales include commissions, where we apply the practical expedient and recognize commissions as expense when incurred because the expense is incurred over a period of time less than one year. Commissions are reported in selling, general and administrative expense in the statements of operations and comprehensive loss.

Inventories

We value inventories at the lower of cost or net realizable value. We determine cost using the first-in, first-out method for all inventories. We determine net realizable value as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. We regularly review inventory quantities in consideration of actual loss experiences, projected future demand, and remaining shelf life to record a provision for excess and obsolete inventory when appropriate. Our policy is to write down inventory that has become obsolete, inventory that has a cost basis in excess of its expected lower of cost or net realizable value, and inventory in excess of expected requirements. The estimate of excess quantities is judgmental and primarily

dependent on our estimate of future demand for a particular product. If the estimate of future demand is too high, we may have to write-down excess inventory for that product and record a charge to cost of goods sold.

Research and Development

We expense research and development costs as incurred. Research and development expenses consist primarily of engineering, product development, clinical studies to develop and support our products, regulatory expenses, medical affairs and other costs associated with products and technologies that are in development including quality assurance. Research and development expenses include employee compensation, including stock-based compensation, supplies, consulting, prototyping, testing, materials, travel expenses, depreciation and an allocation of facility overhead expenses. Additionally, research and development expenses include costs associated with our clinical studies including clinical trial design, clinical site reimbursement, data management, travel expenses, the cost of products used for studies and costs associated with regulatory compliance and submitting and maintaining regulatory filings.

Derivative Instruments

The convertible notes issued in 2019 and 2020 contain embedded features that provide the lenders with multiple settlement alternatives. Certain of these settlement features provide the lenders the right to receive cash or a variable number of shares upon the completion of a capital raising transaction, change of control or default by us, or the Redemption Features.

The Redemption Features of the convertible notes meet the requirements for separate accounting and are accounted for as a single derivative instrument. The derivative instruments were recorded at fair value at inception and are subject to remeasurement to fair value at each balance sheet date, with any changes in fair value recognized in the statements of operations and comprehensive loss. The primary inputs for the valuation approach included the probability of achieving various settlement scenarios that provide the lenders the rights or the obligations to receive cash or a variable number of shares upon the completion of a capital transaction, and the fair value of the stock. The fair value of the derivative instrument has been estimated using a two-step approach to valuation, employing a probability-weighted scenario valuation method and then comparing the instrument's value with-and-without the derivative features in order to estimate their combined fair value, using unobservable inputs. In order to estimate the fair value of the 2019 Convertible Notes and 2020 Convertible Notes, we estimated the future payoff in each scenario, discounted them to a present value and then probability weighted them based upon our best estimate of the likelihood of each event occurring. The estimated fair value of the derivative instrument related to the 2019 Convertible Notes was \$6.0 million as of the issuance dates and \$4.7 million as of December 31, 2019. The estimated fair value of the derivative instrument related to the 2020 Convertible Notes was \$1.7 million as of the issuance dates. In August 2020, all outstanding convertible notes converted into shares of Series B' convertible preferred stock and the derivative instrument was extinguished. The conversion was accounted for as a debt extinguishment with \$4.1 million recognized as extinguishment gain in additional paid-in capital in the quarter ended September 30, 2020.

Redeemable Convertible Preferred Stock Warrants

Our redeemable convertible preferred stock warrants require liability classification and accounting as the underlying redeemable convertible preferred stock is considered contingently redeemable and may obligate us to transfer assets to the holders at a future date upon the occurrence of a deemed liquidation event. The warrants are recorded at fair value upon issuance and are subject to remeasurement to fair value at each balance sheet date, with any changes in fair value recognized in other income (expense), net in the statements of operations and comprehensive loss. In determining the fair value of the redeemable convertible preferred stock warrant liability, we used the Black-Scholes option pricing model to estimate the fair value using unobservable inputs including the expected term, expected volatility, risk-free interest rate and dividend yield. We will continue to adjust the warrant liability for changes in fair value until the earlier of the exercise or expiration of the redeemable convertible preferred stock warrants, the occurrence of a deemed liquidation event or the conversion of redeemable convertible preferred stock into common stock.

Common Stock Valuation and Stock-Based Compensation

We use a fair value-based method to account for all stock-based compensation arrangements with employees and non-employees, including stock options and stock awards. Our determination of the fair value of stock options on the date of grant utilizes the Black-Scholes option pricing model.

We recognize the fair value of the option granted on a straight-line basis over the period during which an optionee is required to provide services in exchange for the option award, known as the requisite service period, which usually is the vesting period. We account for forfeitures as they occur.

Estimates of the fair value of equity awards as of the grant date using valuation models such as the Black-Scholes option pricing model are affected by assumptions with a number of complex variables. Changes in the assumptions can materially affect the fair value and ultimately the amount of stock-based compensation expense recognized. These inputs are subjective and generally require significant analysis and judgment to develop. Changes in the following assumptions can materially affect the estimate of the fair value of stock-based compensation:

- *Expected Term.* We calculate the expected term using the simplified method, which is available where there is insufficient historical data about exercise patterns and post-vesting employment termination behavior. The simplified method is based on the vesting period and the contractual term for each grant, or for each vesting-tranche for awards with graded vesting. The mid-point between the vesting date and the maximum contractual expiration date is used as the expected term under this method. For awards with multiple vesting-tranches, the periods from grant until the mid-point for each of the tranches are averaged to provide an overall expected term.
- *Expected Volatility.* For all stock options granted to date, we estimated the volatility data based on a study of publicly traded industry peer companies as we did not have any trading history for our common stock. For purposes of identifying these peer companies, we considered the industry, stage of development, size and financial leverage of potential comparable companies. For each grant, we measured historical volatility over a period equivalent to the expected term. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.
- *Risk-free Interest Rate.* The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of the grant for zero-coupon U.S. Treasury notes with remaining terms similar to the expected term of the options.
- *Dividend Rate.* We assumed the expected dividend to be zero as we have never paid dividends and have no current plans to do so.

Common Stock Valuation

The estimated fair value of the common stock underlying our stock options and stock awards was determined at each grant date by our board of directors, with input from management. All options to purchase shares of our common stock are intended to be exercisable at a price per share not less than the per-share fair value of our common stock underlying those options on the date of grant.

In the absence of a public trading market for our common stock, on each grant date, we develop an estimate of the fair value of our common stock based on the information known to us on the date of grant, upon a review of any recent events and their potential impact on the estimated fair value per share of the common stock, and in part on contemporaneous input from an independent third-party valuation firm. Our estimate of fair value is reviewed and approved by our board of directors.

We determined our valuations of our common stock in accordance with the guidelines outlined in the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the Practice Aid. We based the assumptions used to determine the estimated fair value

of our common stock on numerous objective and subjective factors, combined with management judgment, including:

- external market conditions affecting the pharmaceutical and medical devices industry and trends within the industry;
- our stage of development and business strategy;
- the rights, preferences and privileges of our convertible preferred stock relative to those of our common stock;
- the prices at which we sold shares of our convertible preferred stock;
- our financial condition and operating results, including our levels of available capital resources;
- the progress of our research and development efforts;
- equity market conditions affecting comparable public companies; and
- general U.S. market conditions and the lack of marketability of our common stock.

The Practice Aid identifies various available methods for allocating enterprise value across classes and series of capital stock to determine the estimated fair value of common stock at each valuation date. In accordance with the Practice Aid, we considered the following methods:

- *Option Pricing Method.* Under the option pricing method, or the OPM, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The estimated fair values of the preferred and common stock are inferred by analyzing these options.
- *Probability-Weighted Expected Return Method.* The probability-weighted expected return method, or the PWERM, is a scenario-based analysis that estimates value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

For our valuations performed in July 2019 and March 2020, we used the market approach and the transaction approach outlined in the Practice Aid for the valuation of our equity. We used the market approach to represent the fair market value and fair value of our equity based upon the continuing operations as a private entity in the remain private scenario. We used the transaction approach to determine an indication of fair market value and fair value for us under an initial public offering, or IPO, and merger and acquisition scenario. Once we determined our equity values for each exit event, we applied the PWERM to determine the fair market value and fair value of our common stock. All probabilities and future exit events were based on our expectations regarding the timing and method of liquidity.

For our valuation performed in August 2020, we utilized the OPM as the primary method to determine the indication of common stock value by “back-solving” the value implied by the Series B’ convertible preferred stock pricing. We closed our Series B’ convertible preferred stock financing round on August 19, 2020. To derive a value indication from the Series B’ redeemable convertible preferred round of financing, we applied the Option Pricing Model to determine the implied value of our common stock based on the Series B’ convertible preferred stock pricing. Based on the Series B’ redeemable preferred share price, we solved for our equity value given the post-transaction liquidation preferences, participation caps, dividends, conversion features, and our capital structure immediately following the issuance of the Series B’ convertible preferred stock.

For our valuation performed in December 2020, we used a hybrid approach of the PWERM and the OPM to determine the estimated fair value of our common stock. Under the PWERM, we utilized a multi-scenario approach and estimated the value of our common stock based upon an IPO as a possible future event. The IPO scenario values were based on capitalization multiples of recent IPOs of companies similar to us and our estimate of IPO timing.

discounted back to the valuation date at an appropriate rate of return. The equity value per share under a remain-private-longer scenario, which contemplates undergoing an exit event at a later date, was based on “backsolving” the value implied by the Series B’ convertible preferred stock financing. Under this multi-scenario hybrid approach, the per share values calculated under each scenario were weighted based on the probability associated with each scenario and the quality of the information specific to each allocation methodology to arrive at a final estimated fair value per share of the common stock before a discount for lack of marketability was applied.

In determining the estimated fair value of our common stock, our board of directors also considered the fact that our stockholders could not freely trade our common stock in the public markets. Accordingly, we applied discounts to reflect the lack of marketability of our common stock based on the weighted-average expected time to liquidity. The estimated fair value of our common stock at each grant date reflected a non-marketability discount partially based on the anticipated likelihood and timing of a future liquidity event.

Following the closing of this offering, our board of directors intends to determine the fair value of our common stock based on the closing sales price of our common stock on the date of grant of equity awards.

The intrinsic value of all outstanding options as of December 31, 2020 was approximately \$45.3 million, based on an assumed initial public offering price of \$16.00 per share (the midpoint of the estimated price range set forth on the cover of this prospectus), of which approximately \$5.0 million is related to vested options and approximately \$40.3 million is related to unvested options.

Income Taxes

We account for income taxes under the liability method. Under this method, we determine deferred tax assets and liabilities based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. We establish valuation allowances when necessary to reduce deferred tax assets to the amounts expected to be realized. We have established a full valuation allowance against our deferred tax assets due to the uncertainties surrounding the realization of such assets.

We assess all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position’s sustainability and is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and we will determine whether (i) the factors underlying the sustainability assertion have changed and (ii) the amount of the recognized tax benefit is still appropriate. The recognition and measurement of tax benefits requires significant judgment. Judgments concerning the recognition and measurement of a tax benefit might change as new information becomes available.

Utilization of our NOL and tax credit carryforwards may be subject to a substantial annual limitation due to the ownership change provisions included in the Internal Revenue Code, or Section 382, and similar state provisions. An annual limitation may result in the expiration of NOL and credit carryforwards before utilization. We have determined that we experienced a Section 382 ownership change in 2016, resulting in permanent limitations of our NOL and credit carryforwards. It has been determined that \$233.6 million and \$150.7 million of federal and state NOL carryforwards have been permanently limited, respectively. It has also been determined that \$10.5 million of federal research and development credits have been permanently limited. We do not expect any additional NOL or credit carryforwards as of December 31, 2020 to expire as a result of Section 382.

JOBS Act Accounting Election

The JOBS Act permits an “emerging growth company” such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have elected to use this extended transition period under the JOBS Act until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for

new or revised accounting standards that are applicable to public companies, which may make comparison of our financials to those of other public companies more difficult.

We will cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more, (ii) the last day of our fiscal year following the fifth anniversary of the date of the closing of this offering, (iii) the date on which we have issued more than \$1.0 billion in nonconvertible debt during the previous three years or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the Securities and Exchange Commission.

Further, even after we no longer qualify as an emerging growth company, we may still qualify as a “smaller reporting company,” which would allow us to take advantage of many of the same exemptions from disclosure requirements, including reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common shares less attractive because we may rely on these exemptions. If some investors find our common shares less attractive as a result, there may be a less active trading market for our common shares and our share price may be more volatile.

Recent Accounting Pronouncements

See “Recent Accounting Pronouncements” in Note 2 to our financial statements included elsewhere in this prospectus for additional information.

Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Sensitivity

The market risk inherent in our financial instruments and in our financial position represents the potential loss arising from adverse changes in interest rates. As of December 31, 2020, we had cash, cash equivalents and short-term marketable debt securities of \$38.1 million, consisting of interest-bearing money market funds and fixed income mutual funds for which the fair value would be affected by changes in the general level of U.S. interest rates. However, due to the short-term maturities and the low-risk profile of our cash equivalents and short-term marketable debt securities, an immediate 10% change in interest rates would not have a material effect on the fair value of our cash equivalents and short-term marketable debt securities.

We do not believe that inflation, interest rate changes or exchange rate fluctuations have had a significant impact on our results of operations for any periods presented herein.

BUSINESS

Overview

We are a commercial-stage medical device company focused on transforming the lives of people suffering from epilepsy by reducing or eliminating the occurrence of debilitating seizures. Our novel and differentiated RNS System is the first and only commercially available, brain-responsive neuromodulation system that delivers personalized, real-time treatment at the seizure source. By continuously monitoring the brain's electrical activity, recognizing patient-specific abnormal electrical patterns, and responding in real time with imperceptible electrical pulses to prevent seizures, our RNS System is programmed by clinicians to deliver the precise amount of therapy when and where it is needed and provides exceptional clinical outcomes with approximately three minutes of stimulation on average per day. Our RNS System is also the only commercially available device that records continuous brain activity data and allows clinicians to monitor patients not only in person, but also remotely, providing them the data they need to make more informed treatment decisions, thus optimizing patient care. We believe the therapeutic advantages of our RNS System, combined with the insights obtained from our extensive brain data set, offer a significant leap forward in epilepsy treatment. As of December 31, 2020, over 3,000 patients have received our RNS System. We believe our compelling body of long-term clinical data, demonstrating continuous improvement in outcomes over time, will support the continued adoption of our RNS System among the approximately 575,000 adults in the United States with drug-resistant focal epilepsy. Over time, we plan to seek indication expansion more broadly for use across the entire approximately 1.2 million drug-resistant epilepsy patients in the United States and may additionally seek to expand our operations to reach the approximately 16.5 million drug-resistant epilepsy patients globally.

Epilepsy is a devastating chronic disorder characterized by a tendency of the brain to produce sudden abnormal bursts of electrical energy that disrupt brain functions and cause seizures. The goal for treating epilepsy is to reduce the number and intensity of seizures that a patient experiences, without causing treatment-related side effects. While antiepileptic drugs are considered first-line treatment and are effective at controlling seizures in a large portion of the epilepsy population, approximately one-third of epilepsy patients are considered drug-resistant because they do not achieve complete seizure control or cannot tolerate the side effects of these drugs. These drug-resistant epilepsy patients struggle with a variety of life-impacting challenges including psychological dysfunction, social stigmatization, reduced quality of life, and increased risk of mortality, and are disproportionately responsible for the approximately \$28 billion spent annually on epilepsy care in the United States.

Epilepsy is further classified into two main categories— focal epilepsy and generalized epilepsy. Approximately 60% of epilepsy patients have focal epilepsy, which is characterized by electrical discharges that originate in a specific part of the brain. The remaining 40% of patients have generalized epilepsy, which is characterized by widespread electrical discharges that involve the entire brain at once. Our paradigm-shifting RNS System is currently indicated in the United States for use in adult epilepsy patients, or patients who are 18 years of age or older, with drug-resistant focal epilepsy, which we believe represents an approximately \$26 billion total addressable market. While we are presently focused on this significant market opportunity, in the future we may seek regulatory approval to treat drug-resistant epilepsy in patients under the age of 18 and in generalized epilepsy, as well as in markets outside the United States. We currently do not believe we will need to modify our RNS System for potential use in patients under the age of 18 or in generalized epilepsy; however, we will need to conduct clinical studies and obtain FDA approval prior to marketing the RNS Systems for these indications. We also believe that our RNS System may be effective in treating other brain disorders including depression, impulse control disorders, memory disorders, and post-traumatic stress disorder. We will need to conduct additional studies to determine if any modifications to the RNS System are necessary to address these other brain disorders and to obtain FDA approval for any new indications.

Our commercial efforts are focused on the comprehensive epilepsy centers, or Level 4 CECs, in the United States that facilitate appropriate care for drug-resistant epilepsy patients, including procedures for implantation of epilepsy neuromodulation devices such as our RNS System. While most drug-resistant epilepsy patients begin their care at physician offices or community hospitals, we estimate that approximately 24,000 adult drug-resistant focal epilepsy patients are treated in Level 4 CECs in the United States each year. We estimate that this patient pool represents an annual core market opportunity of approximately \$1.1 billion for initial RNS System implants, and we

expect that it will continue to grow as the number of Level 4 CECs and epilepsy specialists increases, and as more patients are referred to these CECs. In addition, our RNS System currently has an average battery life of approximately eight years, which, through the sale of replacement neuromodulation devices, provides a recurring revenue stream that is additive to our current \$1.1 billion annual market opportunity for initial implants.

Resective or ablative surgery that removes or destroys the brain tissue at the source of the seizure onset has historically been considered the best treatment option for drug-resistant focal epilepsy. However, resective or ablative surgery carries risk, including neurological risk, and only approximately half of resective or ablative surgery patients are seizure free two years after surgery. We estimate that only approximately 20% of drug-resistant focal epilepsy patients have a focus that is both safe to remove and likely to result in seizure control if removed, and are also willing to undergo the procedure.

There are currently two other neuromodulation devices, Vagus Nerve Stimulation, or VNS, and Deep Brain Stimulation, or DBS, that are also approved to address the approximately 80% of drug-resistant focal epilepsy patients who are not ideal candidates for resective or ablative surgery. However, we believe the technology attributes of these devices limit their utility in practice. Both VNS and DBS devices stimulate an anatomical target that is not specific to where seizures start and use the same treatment paradigm for all patients, regularly stimulating the vagus nerve in the case of VNS or one specific location deep in the brain in the case of DBS, using a non-varying schedule in an attempt to prevent seizures. These devices stimulate for multiple hours per day, increasing the occurrence of stimulation-related side effects such as memory impairment, depression, sleep disruption, and vocal disturbances. Additionally, neither of these devices record the brain electrical data known as intracranial electroencephalograms, or iEEGs, that we believe are important to physicians in helping guide the therapy decisions that improve patient results over time. We believe there is a significant unmet need for a personalized, targeted therapy that collects brain data and improves outcomes over time without causing stimulation-related side effects or presenting the neurocognitive risks that are associated with resective or ablative surgery.

We developed our RNS System to address the individualized nature of drug-resistant epilepsy and deliver a safe and effective therapy for focal onset seizures anywhere in the brain. Unlike other neuromodulation devices, our RNS System continuously monitors the brain's electrical activity, recognizes patient-specific abnormal patterns, and delivers treatment at the seizure source when needed, providing significant, sustained, and improving reductions in seizure frequency, including, in some cases, eliminating seizures, without stimulation-related side effects at therapeutic settings. As such, we believe our RNS System is superior in tolerability and efficacy to other neuromodulation approaches, gathering insights from individual patients' brain activity which help clinicians in making better treatment decisions and optimizing patient care. In addition, the non-destructive, reversible nature of the implant procedure makes it an attractive option for drug-resistant focal epilepsy patients, the majority of whom are not candidates for, or are unwilling to undergo, resective or ablative surgery.

The key efficacy and safety benefits of our RNS System are demonstrated by four multi-center FDA approved prospective clinical studies that collectively include approximately 600 patients with up to nine years of follow-up, as well as multiple retrospective studies reporting real-world outcomes. Evidence generated from patients enrolled in our initial clinical studies demonstrated a 44% median reduction in seizure frequency at one year that improved to a 75% median reduction at nine years, with enduring improvements in quality of life and cognition. Importantly, the more recently published real-world results from a post-approval retrospective study showed a median seizure frequency reduction of 67% at one year ($p < 0.05$), which is consistent with the interim one year results of our ongoing prospective Post-Approval Study, increasing to 82% at three or more years, demonstrating the utility of our unique brain data set in driving improvements in therapy effectiveness across patient cohorts over time. Over the 2,500 patient implant years reported in our prospective studies, our RNS System has been shown to be well tolerated without any adverse stimulation-related side effects at therapeutic settings. We believe our extensive and growing body of clinical data is being used to improve patient outcomes, which we believe will support increased adoption.

We received Pre-Market Approval, or PMA, from the FDA for our RNS System in late 2013 and began the commercial rollout of our RNS System in early 2014. We market our RNS System in the United States through a direct sales organization primarily to the epileptologists and neurosurgeons who respectively prescribe and implant neuromodulation devices in the approximately 200 Level 4 CECs in the United States. As of December 31, 2020, our commercial organization of 21 Therapy Consultants and 21 Field Clinical Engineers have established a

significant account base at these Level 4 CECs. Given the concentrated and underpenetrated nature of our target market, we believe there is a significant opportunity to efficiently grow our account base, drive higher utilization within these centers, and increase the number of drug-resistant patients referred to Level 4 CECs without significant salesforce expansion.

The implant procedure for our RNS System and the ongoing patient treatment provided by clinicians, including monitoring and programming, are reimbursed under well-established physician and hospital codes. In addition, we believe that our RNS System is currently the only neuromodulation system for epilepsy with reimbursement available for periodic in-person or remote review of brain activity data. Given the relatively young average age of our patient population, our payor mix has historically been more heavily weighted towards commercial payors. As of December 31, 2020, commercial payors have written positive coverage policies that address approximately 200 million covered lives in the United States. Medicare and Medicaid also routinely provide coverage for implantation of our RNS System and follow-up care. Based on our experience, less than 1% of potential RNS System patients have been unable to undergo an implant procedure with our RNS System due to lack of payor coverage. We believe the established, differentiated, and favorable reimbursement paradigm for our RNS System will continue to support its broad commercial adoption.

Our near-term research, development, and clinical efforts are focused on continuing to improve therapy effectiveness, enhance the patient and provider experience, and expand the population of patients that can be treated with our RNS System. Our near-term product development pipeline includes enhanced offerings that leverage our extensive brain activity database and our advanced data analysis capabilities. In the near-term, we also intend to pursue studies to support label expansion for our RNS System in additional epilepsy populations.

We have experienced considerable growth since we began commercializing our RNS System. Our revenue increased from \$28.5 million for the year ended December 31, 2018 to \$37.0 million for the year ended December 31, 2019, representing approximately 30% growth. The COVID-19 pandemic and the measures imposed to contain the pandemic impacted our business during 2020, with the most pronounced negative impact during the second quarter of the year. Revenue increased to \$41.1 million for the year ended December 31, 2020, representing year over year growth of 11.3%. Our net losses were \$30.0 million and \$24.3 million for the years ended December 31, 2019 and December 31, 2020, respectively.

Competitive Strengths

We are focused on transforming the lives of people suffering from epilepsy by developing, manufacturing, continuously improving, and commercializing our innovative and clinically-validated RNS System that we believe offers significant advances in the treatment of drug-resistant epilepsy. We believe our continued growth will be driven by the following competitive strengths:

- **Novel and differentiated closed-loop, brain-responsive technology that provides targeted, personalized care.** Our RNS System is the first and only commercially available brain-responsive neuromodulation system that can be programmed by clinicians to deliver personalized treatment to the seizure source, based on an individual patient's unique brain activity. Our RNS System continuously monitors the brain's electrical activity and recognizes patient-specific abnormal electrical patterns that precede the onset of seizures. Our RNS System then uses that information to "close the loop" by responding in real time with imperceptible electrical pulses to prevent seizures at their source. This enables our RNS System to deliver therapy precisely when and where it is needed, providing exceptional outcomes with approximately three minutes of stimulation on average per day. As such, we believe our RNS System offers material efficacy and tolerability advantages relative to alternative neuromodulation approaches, offering clinicians insights based on their patients' brain activity which help in making better treatment decisions and optimizing patient care. In addition, the non-destructive, reversible nature of the implant procedure makes it an attractive option for drug-resistant focal epilepsy patients, the majority of whom are not candidates for, or are unwilling to undergo, a resective or ablative brain surgery. Through its unique capabilities, we believe our revolutionary RNS System has the potential to transform the treatment paradigm for the approximately 1.2 million individuals in the United States with drug-resistant epilepsy.

We plan to continue to leverage our technology to establish our RNS System as the standard of care for these patients.

- **Unique data recording capability that has generated an extensive database of detailed brain activity information.** Our RNS System provides insight into a patient's dynamic brain activity from iEEG data recorded over time by our neurostimulator. It is the only commercially-available device that provides continuous information on brain electrical activity specific to epilepsy and detailed recordings of iEEGs to help clinicians make more informed treatment decisions and optimize their patients' care. These data are recorded by our RNS System and can be viewed by the physician during regular patient visits using the Physician Tablet or on demand through a secure website. Our RNS System gathers objective and actionable information about an individual patient's condition, seizure patterns, and treatment effectiveness which clinicians can utilize to optimize patient care. We believe our RNS System offers a significant leap forward relative to current practice for epilepsy treatment in which clinicians rely on patient-reported seizure data which are often unreliable and incomplete. As of December 31, 2020, over 3,000 epilepsy patients have received our RNS System, yielding an extensive database of approximately 6.6 million iEEG records. We believe that we are able to continue to learn and innovate by leveraging this database and our data analytics capabilities, thereby improving and enhancing our products and creating actionable insights for clinicians that improve clinical outcomes for patients.
- **Compelling body of long-term clinical data that continues to demonstrate improved outcomes over time.** The efficacy and safety benefits of our RNS System are supported by nearly 2,500 patient-implant years of data from approximately 600 patients enrolled across four multi-center FDA approved prospective studies, in addition to multiple retrospective studies reporting real-world outcomes. Evidence generated in studies provides nine years of follow-up data resulting in the largest and longest published prospective neuromodulation data set in the field of epilepsy. These studies demonstrate that our RNS System provides significant, sustained, and improving reductions in disabling seizures with enduring improvements in quality of life and cognition. In our randomized, controlled Pivotal Study, patients experienced a median reduction in seizure frequency of 44% after the first year. The patients from our Feasibility Study and the Pivotal Study, all of whom received implants prior to 2010, were followed in a Long-Term Treatment Trial, or LTT, in which outcomes improved to a 75% median reduction in seizure frequency at nine years, demonstrating the ability of our closed-loop therapy to improve outcomes in the same set of patients over time. Additionally, we believe the insights obtained from our extensive brain data set are driving improvements in overall therapy effectiveness across patient cohorts over time. For example, the recently published real-world results from a post-approval retrospective study of patients treated across eight epilepsy centers showed a statistically significant median seizure frequency reduction of 67% at one year ($p < 0.05$), which is consistent with the interim one year results of our ongoing prospective Post-Approval Study, increasing to a median reduction in seizure frequency of 82% at three or more years, the highest published seizure frequency reduction for any neuromodulation study. Our studies have also collectively demonstrated that our RNS System is well-tolerated, with a safety profile similar to that of other brain neurostimulator implant procedures, and a lower rate of dying from sudden unexpected death in epilepsy, or SUDEP, relative to other treatment-resistant epilepsy groups. Unlike other neuromodulation devices for epilepsy, which have been shown to negatively impact sleep, mood, memory, and vocal characteristics, our RNS System is not associated with adverse stimulation-related side effects at therapeutic settings. We believe our extensive and growing body of clinical evidence will continue to support increased adoption of our RNS System.
- **Efficient commercial model supported by an established, specialized field team.** Our initial target patient population of U.S. adults with drug-resistant focal epilepsy is treated in Level 4 CECs that provide advanced diagnosis and management of epilepsy. We estimate that there are approximately 200 of these Level 4 CECs in the United States. As of December 31, 2020, our commercial organization of 21 Therapy Consultants and 21 Field Clinical Engineers have established a significant account base, resulting in 132 of these Level 4 CECs implanting our RNS System in 2020. Our commercial organization remains focused on increasing the number of implanting Level 4 CECs and driving utilization within these centers. Given the concentrated nature of our target market, we believe there is a significant opportunity to efficiently drive

continued growth without significant salesforce expansion. As the number of Level 4 CECs and epileptologists grows, we continue to leverage the concentrated nature of our patient and provider population with our highly-skilled and technically trained salesforce. We believe that our focused and dedicated approach to these CECs has also enabled us to develop deep-rooted relationships with the clinicians that manage our target patient population, which provides a strong established channel for future potential products and indications.

- **Established, differentiated, and favorable reimbursement supporting commercial growth.** We believe that both the implantation procedure for our RNS System and the ongoing patient care provided by clinicians, including monitoring and programming, are reimbursed at attractive levels under well-established physician and hospital codes. In addition, our RNS System is currently the only neuromodulation system for epilepsy with reimbursement available for in-person or remote review of iEEG data, which provides a differentiated value proposition for clinicians. Given the relatively young average age of our patient population, our payor mix has historically been more heavily weighted towards commercial payors and, as of December 31, 2020, positive written coverage policies from commercial payors address approximately 200 million covered lives in the United States. Medicare and Medicaid also routinely provide coverage for implantation of our RNS System and follow-up care. Based on our experience, less than 1% of potential RNS System patients have been unable to undergo an implant procedure with our RNS System due to lack of payor coverage. We believe the established, differentiated, and favorable reimbursement paradigm for our RNS System will continue to support its broad commercial adoption.
- **Strategic approach to our intellectual property portfolio.** Our product and technological advantages are supported by a combination of our patent portfolio, trade secrets, and manufacturing know-how. As of December 31, 2020, we owned 132 issued U.S. patents and 14 non-provisional pending U.S. patent applications that included system, device, and method claims covering our differentiated, responsive direct brain stimulation system as well as stimulation and treatment modalities, artificial intelligence, and data analysis methodologies.
- **Experienced senior management team.** Our senior management team consists of seasoned medical device professionals with deep industry and clinical domain experience. Our team has successfully led and managed dynamic growth phases in organizations, commercialized products, and developed markets in neuromodulation and other therapeutic modalities. Members of our team have worked with well-regarded medical technology companies such as Boston Scientific Corporation, Johnson & Johnson, Guidant Corporation, and Covidien plc.

Our Growth Strategies

We expect that the near-term growth of our business will be primarily driven by new patients being treated with our RNS System. We believe the following strategies will contribute to growth in initial patient implants and advance our mission to dramatically improve clinical outcomes and quality of life for patients suffering from epilepsy and other disabling brain disorders:

- **Drive adoption of our RNS System.** Our commercial efforts are primarily focused on the Level 4 CECs where drug-resistant focal epilepsy patients are actively seeking treatment. The number of Level 4 CECs in the United States has been growing as more epilepsy specialists are trained and in 2020 there were approximately 200 Level 4 CECs in the United States. Our focused commercial organization consists of 21 Therapy Consultants and 21 Field Clinical Engineers who supported 132 Level 4 CECs in performing initial implant cases in 2020. Our experienced sales team also has a near-term opportunity to establish our RNS System as a routine therapy in an additional 44 centers where we have completed the vendor approval and contracting process. Additionally, our sales team has the opportunity to engage with clinicians at programming centers outside of Level 4 CECs to facilitate the continued management of patient care. We believe that with limited additional resources, our current commercial organization has sufficient capacity to establish relationships with the remaining Level 4 CECs and support their ongoing utilization. Our goal is to establish our RNS System as a standard treatment for drug-resistant focal epilepsy patients in all Level

4 CECs by engaging in targeted, efficient sales and education efforts to expand our footprint of CEC accounts.

- **Increase utilization of our RNS System within CECs.** As we expand our footprint across Level 4 CECs, we plan to continue to drive increased utilization of our RNS System within new and existing accounts. We expect to accomplish this by (i) growing the number of epileptologists recommending our system within each center, (ii) increasing utilization of our system by existing prescribers, and (iii) increasing the number of patients with drug-resistant epilepsy that are referred to CECs for the care that they need.
 - Growing the number of epileptologists recommending our system: We estimate that there are approximately 1,200 epileptologists affiliated with the approximately 200 Level 4 CECs in the United States and that this number will continue to grow as more clinicians are trained in the specialty. Epileptologists are the clinicians who prescribe the course of epilepsy treatment, including our RNS System. On average there are approximately five to seven epileptologists affiliated with each Level 4 CEC in the United States. Our commercial efforts resulted in prescriptions from approximately one third of the epileptologists in the Level 4 CECs that implanted our RNS System in 2020. We believe the remaining epileptologists in these accounts represent a significant potential opportunity to drive efficient growth. To facilitate adoption by these clinicians, we plan to continue conducting training and professional education programs, facilitating peer-to-peer dialogue and forums, communicating our exceptional clinical results, and releasing product enhancements that simplify the user experience.
 - Increasing utilization of our RNS System by prescribers: While we have achieved significant commercial adoption of our RNS System to date, including 612 RNS Systems implanted in new patients in 2020, our target market remains highly underpenetrated and represents a significant opportunity for growth. We estimate that approximately 48% of the 50,000 new drug-resistant epilepsy patients seen at a Level 4 CEC in 2019 are adults with focal epilepsy and that the clinical and technology benefits of our RNS System are such that it is an attractive therapy for many of these patients. We plan to increase penetration of our target market by increasing utilization by the epileptologists that are already actively prescribing our RNS System. We have seen that utilization typically increases once clinicians become familiar with the technology and experience the benefits that our RNS System and long-term iEEG data bring to improving patient care. To drive increased utilization, our Therapy Consultants and Field Clinical Engineers are focused on providing information that epileptologists can reference in developing appropriate patient selection protocols and partnering with epilepsy programs to more fully incorporate our RNS System into their practice. We also engage in collaborative clinical research with epileptologists and neurosurgeons to provide additional data relevant to patient selection, patient care, and RNS treatment approaches.
 - Driving increased referrals of drug-resistant epilepsy patients to Level 4 CECs: While we estimate that there are approximately 1.2 million patients with drug-resistant epilepsy in the United States, only approximately 50,000 new patients were treated in a Level 4 CEC in 2019. We believe there is a significant opportunity to increase referrals of patients who could benefit from our RNS System to Level 4 CECs where they can receive specialized care. To accomplish this, we will continue to drive awareness by engaging epilepsy patients and caregivers through our advocacy partnerships and marketing initiatives such as digital and social media campaigns, advertising, patient education, and patient ambassador programs. In addition, we plan to increase awareness of our RNS System amongst clinicians who treat epilepsy patients early in their care, including general neurologists, through education and outreach designed to drive patient referrals to Level 4 CECs.
- **Broaden indications for our RNS System to include patients under age 18 and patients with generalized epilepsy.** Of the 50,000 drug-resistant epilepsy patients that present at Level 4 CECs in the United States annually, we estimate that approximately 48%, or 24,000, are adults with drug-resistant focal epilepsy who are currently candidates for our RNS System. The remaining patients include approximately 12%, or 6,000 patients under the age of 18 with drug-resistant focal epilepsy and approximately 40%, or 20,000 patients with drug-resistant generalized epilepsy. Supported by evidence published in peer-reviewed journals, we believe that our current RNS System may be able to effectively treat these expanded patient populations

without significant modifications to our existing product and we intend to pursue clinical studies to support label expansion for these indications. We have FDA approval for an investigational device exemption, or IDE, to treat drug-resistant focal epilepsy in adolescent patients ages 12 through 17 and expect to begin enrollment in 2021. In the second half of 2021, we also plan to seek IDE approvals to initiate studies in drug-resistant generalized epilepsy. We currently do not believe we will need to modify our RNS System for potential use in patients under the age of 18 or in generalized epilepsy; however, we will need to conduct clinical studies and obtain FDA approval prior to marketing the RNS Systems for these indications.

- **Expand into international markets.** We estimate that the global drug-resistant epilepsy market includes approximately 16.5 million patients, of which the United States represents approximately 1.2 million patients. While we are presently focused on addressing the significant domestic market opportunity, we believe our RNS System offers an attractive value proposition for patients, providers, and payors in the large potential market outside of the United States and may additionally seek to expand our operations to reach the approximately 16.5 million drug-resistant epilepsy patients globally. While our RNS System is not yet approved for sale outside the United States, we plan to pursue regulatory approvals and reimbursement with a priority on markets in which we see significant potential opportunity.
- **Pursue additional indications, including outside of epilepsy.** We believe our versatile, closed-loop, brain-responsive neuromodulation platform has potential applications in other brain disorders including depression, impulse control disorders, memory disorders, and post-traumatic stress disorder. For each of these four conditions, we are collaborating with academic investigators in early IDE feasibility studies using our RNS System in patients. In the future, depending on the outcome of these studies, we may seek regulatory approval to commercialize our technology for these or other indications. We will need to conduct additional studies to determine if any modifications to the RNS System are necessary and to obtain FDA approval prior to marketing the RNS Systems for any new indications, including for potential use in treating other brain disorders including depression, impulse control disorders, memory disorders, and post-traumatic stress disorder.

Our Market and Industry

Overview of Drug-Resistant Epilepsy

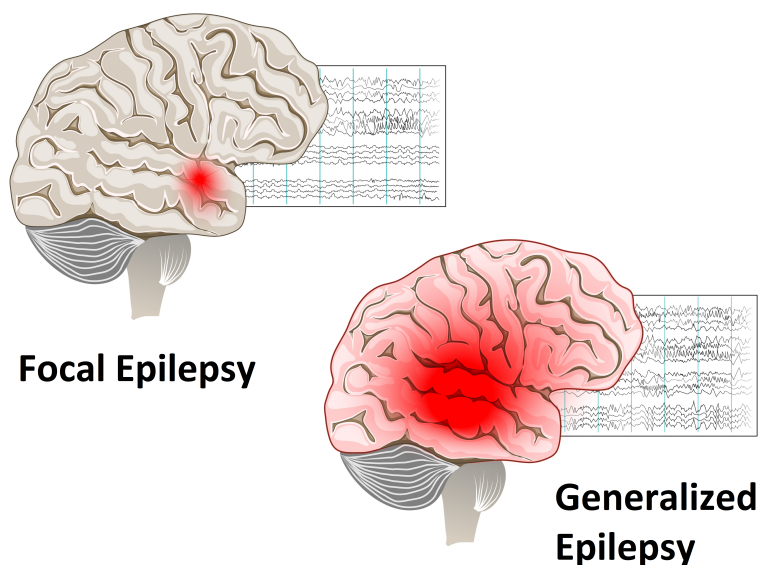
Epilepsy is a devastating chronic disorder characterized by a tendency of the brain to produce sudden abnormal bursts of electrical energy that disrupt brain functions and cause seizures. The symptoms of the seizure depend on the region of the brain from which the discharges arise and the extent to which they spread. If the seizure remains restricted to less than half of the brain, then symptoms may include an alteration in speech, memory, motor, sensory, or vision function. Most often, there is confusion. If the seizures involve all of the brain, there is loss of consciousness. In the most severe case, the patient may have a generalized tonic-clonic seizure, which is also referred to as a convulsion or Grand Mal seizure, with uncontrolled jerking of the arms and legs. After the seizure, patients may remain confused and disoriented for minutes or even hours. Seizure-related injuries include burns, head and skeletal trauma, abrasions, lacerations, and potentially life-threatening accidents.

According to the World Health Organization, approximately 50 million people worldwide had epilepsy in 2019 and according to the Centers for Disease Control and Prevention, 3.4 million people in the United States were living with epilepsy in 2015, making it the fourth most common neurological disorder in the United States. First line treatment for epilepsy is antiepileptic drugs, or AEDs. While AEDs can help control seizures for many individuals, approximately one third of patients do not achieve complete seizure control, which is defined as seizure freedom without life-impacting side effects associated with treatment. According to a 2018 article published in JAMA Neurology, the chance of achieving complete seizure control after failing two AED regimens is less than 5%. The study concluded that despite the availability of over 15 new drugs in the past decade, overall complete seizure control in newly diagnosed patients has not fundamentally changed. This population of epilepsy patients is referred to as drug-resistant and we estimate that there are approximately 1.2 million drug-resistant epilepsy patients in the United States.

Drug-resistant epilepsy is a costly disorder in terms of its impact on individuals and their families as well as on society. According to a 2020 article in the American Journal of Managed Care, estimated direct costs of epilepsy in the United States are approximately \$28 billion per year, disproportionately accrued by individuals with uncontrolled drug-resistant epilepsy. Importantly, these direct costs do not consider indirect costs from losses in quality of life and productivity, which are estimated to constitute the majority of the cost burden of epilepsy.

Patients with drug-resistant epilepsy struggle with a variety of life-impacting challenges including psychological dysfunction, social stigmatization, reduced quality of life, and increased risk of mortality. The unpredictable nature of seizures limits the ability of patients to live independently, and promotes increased social isolation. Studies have shown that children with epilepsy often receive inadequate schooling, which leads to developmental gaps as these children mature and, for adults, unemployment levels are approximately two to three times higher than the overall population. Based on a social security death index, people with drug-resistant epilepsy have a cumulative probability of death of 8.7% at six years from the time of diagnosis at an epilepsy center, and patients with uncontrolled epilepsy have a nine to thirteen times higher risk of death than patients with epilepsy who are seizure-free.

Epilepsy can be classified into two categories: focal epilepsy and generalized epilepsy. Approximately 60% of epilepsy patients have focal epilepsy, which is characterized by electrical discharges that originate in a specific part of the brain. Focal epilepsy patients typically have one or two seizure foci, or sites in the brain from which the electrical discharge originates. Generalized epilepsy, which describes approximately 40% of epilepsy patients, is characterized by widespread electrical discharges that involve the entire brain at once.



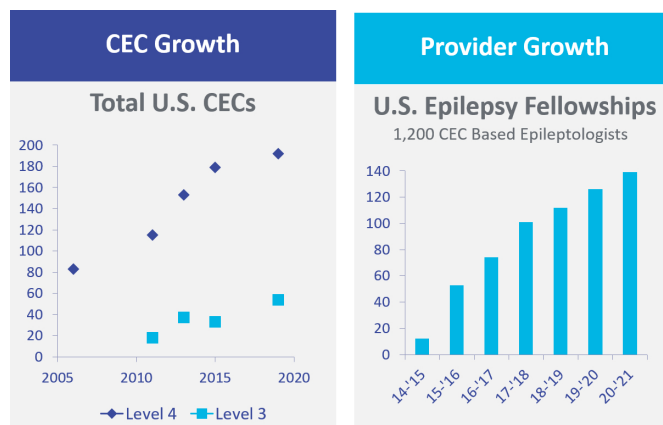
Onset of epilepsy can occur at any age. Of the approximately 1.2 million patients in the United States with drug-resistant epilepsy, we estimate that approximately 80% are adults, or 18 years of age or older, of whom approximately 575,000 have focal epilepsy. The remaining approximately 20% of patients are pediatric, or under the age of 18, and we estimate that approximately 145,000 of these pediatric patients have focal epilepsy.

Overview of Epilepsy Care

The National Association of Epilepsy Centers, or NAEC, which is considered the primary accreditation organization for epilepsy centers in the United States, classifies epilepsy care into four levels. Levels 1 and 2 care include an evaluation in a primary care physician's office or a consultation with a general neurologist while levels 3 and 4 care take place at specialized epilepsy centers called Comprehensive Epilepsy Centers, or CECs.

CECs are typically tertiary care hospitals that provide specialized epilepsy care. Level 3 CECs generally provide basic neurodiagnostic evaluations and may also offer noninvasive surgical evaluations, straightforward resective or ablative surgery, and implant VNS devices, but do not perform intracranial evaluations or complex resective or ablative surgery. In addition to offering the services performed at Level 3 CECs, Level 4 CECs offer the most comprehensive and complex epilepsy care, including a broad range of surgical procedures for epilepsy. The NAEC recommends that patients whose seizures have not been brought under control after three months of care by a primary care physician or after 12 months of seeing a general neurologist be referred to a Level 3 or Level 4 CEC.

The number of CECs in the United States has grown from approximately 80 Level 4 CECs in 2006 to approximately 200 in 2020. The number of neurologists being trained in accredited epilepsy fellowship programs has increased from twelve in the 2014, when the board certification was created, to 140 in 2020. The figure below shows provider and CEC growth in the United States.



Today, most drug-resistant epilepsy patients in the United States begin their care at physician offices or community hospitals, with Level 1 or 2 care by primary care physicians or general neurologists. In 2019, we estimate that approximately 50,000 drug-resistant epilepsy patients were referred to, and treated in, Level 4 CECs, of which approximately 48%, or 24,000, were adults with focal epilepsy.

Our Market Opportunity

Our paradigm-shifting RNS System is currently indicated for use in adults with drug-resistant focal epilepsy and we believe that it is an attractive therapeutic option for these patients. We estimate that there are approximately 575,000 adult drug-resistant focal epilepsy patients in the United States, which reflects a total addressable market opportunity of approximately \$26 billion for our RNS System.

Our commercial efforts are focused on the Level 4 CECs in the United States that provide comprehensive epilepsy care. As such, we view our core annual market as the 50,000 drug-resistant epilepsy patients who present at Level 4 CECs each year, of which 48% are adult drug-resistant focal epilepsy patients. We estimate that this addressable patient pool of 24,000 patients represents an annual market opportunity of approximately \$1.1 billion for initial RNS System implants, and we expect that it will continue to grow as the number of Level 4 CECs increase, the number of epilepsy specialists grows, and as more patients are referred to Level 4 CECs. Our RNS System currently has a battery life of approximately eight years, which, through the sale of replacement neuromodulation devices, provides a recurring revenue stream that is additive to our current \$1.1 billion annual market opportunity. The average age of initial implant patients in our clinical studies was approximately 34 and we expect that many of our patients will return multiple times for replacement procedures over their lifetimes.

Supported by evidence published in peer reviewed journals, we believe that our current RNS System may also be able to effectively treat patients under age 18 with drug-resistant focal epilepsy as well as drug-resistant

generalized epilepsy patients and we intend to pursue clinical studies to support label expansion for these indications. We have FDA approval for an IDE study to treat drug-resistant focal epilepsy in patients under age 18 and expect to begin enrollment in 2021. In February 2021, our RNS System received Breakthrough Device Designation from the FDA for the treatment of idiopathic generalized epilepsy, or IGE. IGE is a subset of generalized epilepsy, is understood to have a strong underlying genetic basis and constitutes as many as one third of all epilepsies. We believe that this breakthrough designation will help patients suffering from IGE have more timely access to our RNS System. In the second half of 2021, we also plan to seek IDE approvals to initiate clinical studies in generalized epilepsy.

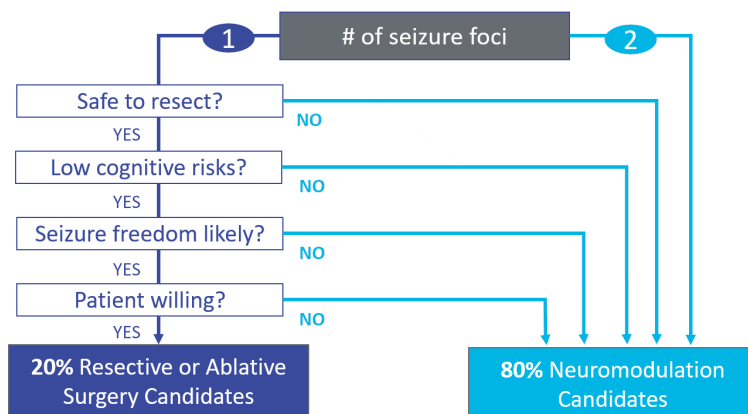
Based on the additional approximately 6,000 drug-resistant focal epilepsy patients under the age of 18 and approximately 20,000 drug-resistant generalized epilepsy patients that were treated at Level 4 CECs in 2019, we estimate that these patient populations represent total market opportunities of approximately \$6 billion and \$22 billion, respectively, and annual market opportunities of approximately \$270 million and \$900 million, respectively for initial implants. The adolescent population, for which we expect to seek indication expansion, represents a subset of the overall pediatric market opportunity.

Current Treatment Alternatives and Their Limitations

There are two primary treatment alternatives for drug-resistant focal epilepsy patients: (i) an ablative or resective surgery to remove or destroy the brain tissue associated with the seizure onset, or (ii) implantation of a neuromodulation device to stimulate seizure-causing brain circuits and prevent or abort seizures.

Once patients are in the care of a Level 4 CEC, they undergo a diagnostic process to determine whether they have focal or generalized epilepsy. If they have focal epilepsy, the locations of seizure onset are also determined. For patients with only one discrete seizure focus, resective or ablative surgery may be an effective option to eliminate seizure activity if the focus is clearly identified by electroencephalogram, or EEG, and magnetic resonance imaging, or MRI, and is safe to resect. However, we estimate that only approximately 20% of drug-resistant focal epilepsy patients meet these requirements and are willing to undergo a surgery.

For the approximately 80% of drug-resistant focal epilepsy patients who are not ideal candidates for resective or ablative epilepsy surgery, neuromodulation devices are an attractive treatment alternative. The first neuromodulation device approved for epilepsy, which is a VNS device, has been available for over 20 years and, in controlled trials, has demonstrated success in reducing seizure frequency. Interest in neuromodulation devices is rising as our RNS System and DBS have more recently been approved for the treatment of focal epilepsy, and as physicians have become more comfortable with, and experienced in, incorporating neuromodulation devices into their practice. Growing awareness of the risks and limited success of resective and ablative surgery are also driving adoption. The chart below illustrates how physicians may evaluate treatment options for their patients.



Resective and ablative surgery

Surgery has been used to treat epilepsy for more than 100 years. Resective or ablative surgery is used in current clinical practice as a treatment alternative for the approximately 20% of drug-resistant epilepsy patients who are willing to have the surgery and have a discrete, single seizure focus that is determined to be safe to resect or ablate in a way that is likely to result in complete seizure control. The remaining approximately 80% of patients are unlikely to become seizure-free after a resective or ablative surgery, are at risk for damage to functions such as language, movement, sensation, memory, or vision, or do not want to have resective or ablative surgery. For people with more than one seizure focus or with a large focus, the possibility of meaningful improvement in seizures with resective or ablative surgery is lower and the risks to neurological function are usually higher. If seizures are generalized at onset, then resective or ablative surgery does not offer a benefit.

Surgical treatment options include focal resection and, more recently, laser ablation. Focal resection procedures are invasive surgeries that involve permanently removing the part of the brain that is primarily responsible for the seizure onset. Laser ablation surgeries, which use thermal energy to permanently destroy brain tissue, have emerged as a less invasive alternative to surgical resection. However, multiple publications have concluded that laser ablation is not as effective as larger resective procedures.

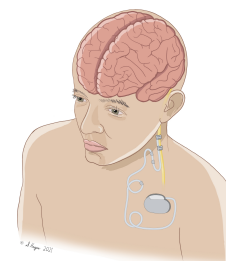


Only approximately 20% of drug-resistant focal epilepsy patients have a focus that is both safe to remove and likely to result in seizure control if removed, and are also willing to undergo resective or ablative surgery. Of those who do, only half are seizure-free two years after surgery and many experience impairment in some aspect of neurological function. The most common and successful type of resective surgery, temporal lobectomy, leaves 30 to 40% of patients with seizures one year after surgery and many patients are left with neurological side effects, including impaired memory, reduced naming ability, and loss of some part of their visual field.

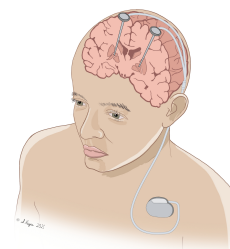
Implantable neuromodulation devices

In addition to our RNS System, there are two neuromodulation devices that are approved by the FDA to treat focal epilepsy: Vagus Nerve Stimulation, or the VNS System, marketed by LivaNova; and Deep Brain Stimulation, or the DBS System, marketed by Medtronic. Neuromodulation devices offer a non-destructive, reversible treatment option that provides substantial seizure reduction and quality of life improvements, without the risk of neurocognitive deficits associated with resective or ablative surgeries. Unlike AEDs and resective or ablative surgery, for which success may decline over time within individual patients, neuromodulation therapies have demonstrated sustained and, in many cases, even improved success over time.

The VNS System was approved by the FDA in 1997 as an adjunctive therapy in reducing the frequency of seizures in patients with drug-resistant focal epilepsy. The VNS System provides scheduled extracranial stimulation delivered from a pectorally implanted pulse generator with the lead tunneled under the skin to the left vagus nerve in the neck next to the carotid artery. Therapy is typically delivered in a repeating pattern of 30 seconds of stimulation followed by five minutes without stimulation. The most recent commercially available version of VNS provides additional stimulation when the heart rate exceeds a preset limit. Although heart rate increases occur during some seizures, this indicator lags behind the brain activity changes that cause seizures.



The DBS System was approved by the FDA in 2018 for the treatment of focal epilepsy. Bilaterally implanted intracranial electrodes are placed in each anterior thalamic nucleus, which have connections to other brain regions. The electrodes are attached to a pectorally implanted pulse generator using connecting wires that are tunneled under the scalp and skin of the neck and chest. DBS delivers non-responsive, sometimes referred to as open-loop, scheduled stimulation and has limited sensing and recording capability. Therapy is typically delivered in a repeating pattern of one minute of stimulation followed by five minutes without stimulation.



Published data from separate prospective FDA approved studies run by LivaNova and Medtronic in adults with focal epilepsy demonstrated that the VNS System and DBS System achieved median reductions in seizure frequency at one year of 35% and 44%, respectively. Both VNS and DBS devices stimulate a fixed anatomical target that is not specific to where seizures start in the brain. They also use the same treatment paradigm for all patients and are intermittently stimulating the brain using a non-varying schedule in an attempt to prevent seizures rather than responding in real-time to the patient-specific electrical activity that precedes a seizure.

Furthermore, VNS devices do not record brain data for physicians to use to assess seizure burden and treatment effectiveness. While the latest generation of DBS devices do record a limited sample of data, these data are not typically as relevant for epilepsy as they are for movement disorders. Accordingly, physicians generally have to rely primarily on patient self-reported seizure data, which is typically unreliable and incomplete, in order to titrate treatment for individual patients. As such, we believe VNS and DBS devices have limited ability to benefit from the insights afforded by brain data in order to improve patient outcomes.

Additionally, although abnormal electrical activity typically occurs less than 1% of the time in epilepsy patients, VNS and DBS devices stimulate an aggregate of multiple hours per day, regardless of the state of the brain, increasing the likelihood of stimulation side effects. Published data from FDA approved trials for VNS indicate that side effects of stimulation include voice alterations, hoarseness, throat pain, cough, and difficulty swallowing while published data from FDA approved trials for DBS indicate that side effects of stimulation include depression and memory impairment. Other studies of DBS report sleep disruption as a side effect.

We believe our RNS System addresses the significant unmet need for an epilepsy treatment option that can improve outcomes without causing stimulation related side effects for the large portion of drug-resistant focal epilepsy patients who are not ideal candidates for surgery or who do not want to undergo a destructive surgical procedure.

Our Solution

Our RNS System, which is a compilation of several of our products, is a paradigm-shifting approach to treating epilepsy that combines the power of continuous iEEG monitoring with responsive neuromodulation. With our RNS System, we offer a personalized treatment option that delivers a safe and effective therapy for focal onset seizures originating anywhere in the brain. We believe our RNS System is superior in tolerability and efficacy to other neuromodulation approaches and provides clinicians with actionable insights based on their patients' brain activity, facilitating better treatment decisions and optimizing patient care.

RNS System Overview

Our RNS System includes our RNS neurostimulator, our cortical strip leads and depth leads, our Patient Remote Monitor, as well as other implantable and non-implantable accessories. As part of the initial implant procedure, the number and configuration of leads implanted as well as the implantable and non-implantable accessories used in the procedure are determined by the clinicians depending on individual patient need and clinician preference and a Patient Remote Monitor is typically included. During a typical replacement implant procedure performed when the battery in our RNS neurostimulator reaches end of service, the RNS neurostimulator is replaced, while the

previously implanted RNS leads remain in place and a new Patient Remote Monitor is typically included. Clinicians continue having access to our Physician Tablet and Patient Data Management System, or PDMS, to provide ongoing patient support.

We developed our RNS System to address the individualized nature of drug-resistant epilepsy with a differentiated technology that provides personalized, data-driven treatment. Our RNS System is the first and only closed-loop, brain-responsive neuromodulation device approved by the FDA for treatment of drug-resistant focal epilepsy. By continuously monitoring the brain's electrical activity, recognizing patient-specific abnormal electrical patterns, and responding in real time with imperceptible electrical pulses to prevent seizures, we believe our RNS System addresses the primary unmet needs in epilepsy care today.

The implantable components of our RNS System include a neurostimulator, which is placed within the patient's skull, and our RNS System leads with both cortical strip electrodes (on the surface of the brain) and depth electrodes (within the brain) that can be positioned in one or two seizure foci, as well as implantable accessories such as our burr hole cover. The neurostimulator is flush with the patient's skull, and under the scalp, so that it is not visible externally. Placing the neurostimulator in the skull minimizes external noise and movement artifact so that it is able to sense even the most subtle brain signals and eliminates the need for long tunneled connectors between the chest and head which reduces the risk for breakage, migration and discomfort that can be associated with some other neuromodulation devices.



The electrodes on the leads sense electrical activity from the brain, provide targeted stimulation only when abnormal activity is detected, and record iEEG data that is stored in the neurostimulator and transmitted wirelessly to a secure portal for remote review by the patients' clinicians. Once fully programmed, patients do not feel the stimulation bursts, which are typically 100 to 200 milliseconds long. Because our RNS System provides targeted, responsive stimulation only when abnormal electrical activity is detected, patients receive approximately three minutes of stimulation on average per day and do not experience stimulation-related side effects at therapeutic settings.

In addition to the implantable components of our RNS System, our RNS System also includes external components such as the Patient Remote Monitor, as well as optional accessories.

Our Patient Remote Monitor is provided to each patient in order to collect and transmit data from the neurostimulator to our Patient Data Management System, a secure online database. It consists of a handheld wand and a specially programmed laptop computer. The patient holds the wand adjacent to the implanted device to wirelessly upload the data from the neurostimulator to the laptop, and then sends that encrypted data to our Patient Data Management System using an internet connection.



Additionally, we provide our Physician Tablet and access to our PDMS for use with our RNS System.

Our Physician Tablet is used by the prescribing or managing clinicians for programming implanted devices and managing patient care. Using the tablet's simple, intuitive interface, the clinician retrieves and reviews iEEG data, detections, and stimulations that were recorded by our RNS System, and can program new detection and stimulation settings that are personalized to each patient's brain activity. While the patient is in clinic, the clinician can look at real time iEEG data or test stimulation settings.



Our Patient Data Management System is a secure online database that collects data that have been recorded in our RNS System. These data, which include all programmed parameters, detections, stimulations, and stored iEEG activity for RNS System patients, can be accessed through our Physician Tablet or from any internet browser. The clinician may choose to view recent data or to look at longer term trends in order to assess the effects of RNS System treatment, antiepileptic drugs or even changes to the patient's routine. This information, combined with the patient's own reports, is used by the clinicians to make treatment decisions.



In addition to the extensive dataset available on our Patient Data Management System, we recently introduced our nSight Platform, which is designed to provide clinicians with personalized patient reports. Our nSight Platform includes objective iEEG data recorded by our RNS System, patient-reported seizure diary data, and prior programmed settings, which are available in a simple and comprehensive report that provides actionable information about their patient's seizure trends and treatment outcomes. This quick snapshot gives clinicians a more complete picture of their patient's health and enables them to remotely manage certain portions of the patient's care in a telehealth environment.

As we collect iEEG data from our RNS System, our database of iEEG records continues to grow. As of December 31, 2020, over 3,000 epilepsy patients have received our RNS System, yielding an extensive database of approximately 6.6 million iEEG records. We believe that we are able to continue to learn and innovate by leveraging this database and our data analytics capabilities, thereby improving and enhancing our products and creating actionable insights for clinicians that improve clinical outcomes for patients.

RNS System – Patient and Clinician Experience

Once an adult patient has been through the diagnostic process in a Level 4 CEC and has been determined to have drug-resistant focal epilepsy, we believe the patient should be considered for our RNS System if the patient has one to two identified seizure foci and is not among the approximately 20% of drug-resistant focal epilepsy patients who may be ideal candidates for surgery. Our RNS System is initially implanted by a neurosurgeon in an inpatient procedure at a Level 4 CEC. Detection is turned on at the end of the implant procedure when the neurostimulator is placed. The patient typically remains in the hospital overnight, then returns home and resumes normal activities. Prior to the first in-person follow up visit, which typically occurs approximately two weeks to four weeks after the implant procedure, an epileptologist will review the iEEG data recorded by our RNS System and identify patient specific patterns that are associated with the early onset of seizures. During the follow-up visit, the epileptologist will make programming adjustments to the device's detection parameters in order to optimize for early detection. Once the patient-specific detection parameters are established, the epileptologist will turn on the stimulation feature, activating the closed-loop treatment of our RNS System.

Once the device has been programmed, our RNS System integrates seamlessly into the typical cadence of care that clinicians currently utilize to manage epilepsy patients. Patients visit their clinician on average every three months during the first year after the procedure. During these visits, clinicians review the iEEG data and may fine-tune programming of the device to optimize clinical outcomes. Once the device settings have been sufficiently fine-tuned, patients typically visit their clinician every three to six months, or on an as needed basis. At any point, clinicians can remotely review patient data and connect with the patient on next steps.

Additionally, we believe that patients find that seeing and learning about their own brain data is empowering and engaging. We believe that for the first time, clinicians can show patients their own seizure patterns and seizure cycles recorded by our RNS System, so that patients can directly see the effects on brain activity with changes in activity or treatment. Patients also appreciate that the device is not visible to themselves or others.

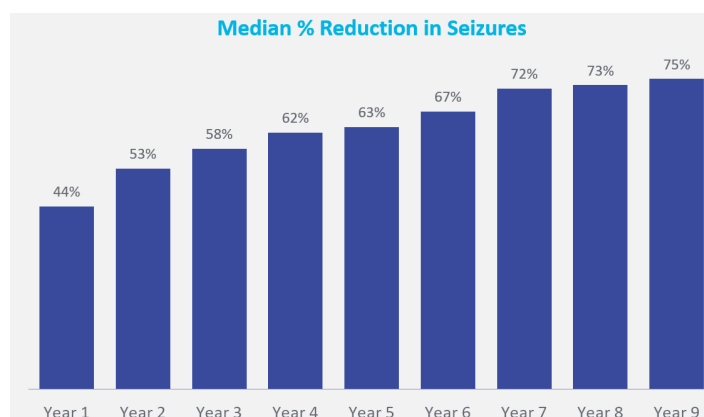
The current commercial model of our RNS System has an average battery life of approximately eight years, and requires replacement once the device approaches the end of its battery life. Prior to 2018, the commercial model of our RNS System had an average battery life of approximately four years. We believe that patients prefer a longer battery life as it reduces the number of procedures they will require over their lifetime. Replacement procedures are

typically performed on an outpatient basis and take approximately one hour. Clinicians are able to view the device's battery status through our Patient Data Management System or on our Physician Tablet, and can plan accordingly with the patient for replacement procedures. In 2019, more than 90% of patients whose RNS System reached the end of its battery life chose to have a replacement RNS System implanted.

Key Clinical Advantages of our RNS System

We believe the key advantages of our RNS System relative to both alternative neuromodulation devices and resective or ablative surgery include:

Significant and improving seizure reduction in all areas of the brain. Four multi-center FDA approved prospective clinical trials and multiple retrospective studies have demonstrated that our RNS System provides significant, sustained and improving reductions in disabling seizures. In our Pivotal Study, patients experienced a median reduction in seizure frequency of 44% after the first year. The patients from the Pivotal Study, all of whom received implants prior to 2010, were followed in a LTT in which outcomes reached a 75% median reduction in seizure frequency at nine years. 28% of these patients, who had previously experienced disabling seizures for an average of 20 years, had at least 6 months of seizure freedom and approximately 20% achieved one year or more of seizure freedom. Additionally, we believe the insights obtained from our extensive brain data set are driving improvements in overall therapy effectiveness across patient cohorts over time. The recently published real-world results from a retrospective study across eight epilepsy centers with patients implanted between 2013 and 2018 showed a statistically significant median seizure frequency reduction of 67% at one year ($p < 0.05$), which is consistent with the interim one year results of our ongoing prospective Post-Approval Study, increasing to 82% by year three, which we believe is the highest published seizure frequency reduction for any neuromodulation study in adults with focal onset seizures. Importantly, peer-reviewed studies have also indicated that our RNS System demonstrates similar efficacy outcomes regardless of the region of the brain being treated, whether there are one or two seizure foci, and whether the patient has been treated with VNS or resective or ablative surgery.



Lack of stimulation-related side effects. Our clinical studies have collectively demonstrated that RNS System therapy is well-tolerated. Patients do not perceive the therapeutic stimulation, which is delivered only to the area of abnormal activity, and only when that abnormal activity occurs. Unlike other neuromodulation devices for epilepsy, which provide hours of stimulation each day to non-specific targets and have been shown to negatively impact sleep, mood, memory, or vocal characteristics, our RNS System stimulates the precise seizure targets and only when needed, resulting in a highly effective therapy with approximately three minutes of stimulation on average per day in total.

Quality of life, cognition, and mood improvement. Reduced quality of life and cognitive function, as well as mental health-related comorbidities, are a significant burden for many patients with drug-resistant focal epilepsy. Improvements in these areas are critically important clinical outcomes for patients. In our Pivotal Study, at one and two years follow-up, patients who began treatment less than ten years after epilepsy onset achieved statistically

significant improvements in overall quality of life scores as well as in every subdomain of quality of life, including cognitive function, mental health, and physical health. Additionally, our clinical studies have demonstrated that treatment with our RNS System resulted in lasting improvements in overall quality of life, including cognitive function, sustained through nine years. Based on comprehensive neuropsychological assessments, there were no adverse cognitive effects and, in fact, significant cognitive improvements were in areas such as naming, verbal learning, visual memory, and executive function.

Low risk, reversible procedure. As demonstrated by multiple clinical studies, our RNS System has a favorable safety profile relative to surgical procedures for epilepsy and a comparable risk profile to the implantation of other neuromodulation devices. Resective or ablative surgical procedures carry a risk of permanent damage to neurological and cognitive function, whereas the non-destructive RNS System implant procedure has not demonstrated a negative impact on neurological or cognitive function. Additionally, stimulation treatment with our RNS System is reversible and modifiable, and does not take away the option of a surgery in the future.

Reduction in sudden unexpected death in epilepsy. Epilepsy patients, particularly those with uncontrolled epilepsy, face a risk of sudden and unexpected death as a result of their condition. Each year, about 1 in 150 patients with uncontrolled epilepsy will die from SUDEP. According to clinical studies, the SUDEP rate is approximately 6.1 per 1,000 patient years in patients with drug-resistant epilepsy and 9.3 per 1,000 patient years in patients referred for resective or ablative surgery. By contrast, data from a published series of 707 patients across our clinical studies and post-market experience indicated that our RNS System was associated with a lower rate of dying from SUDEP of 2.0 per 1,000 patient years relative to other treatment-resistant epilepsy groups.

The results of our prospective clinical studies, which are the largest and longest published studies in the field of neuromodulation for epilepsy, as well as the data that has been published in multiple retrospective studies of our RNS System, provide evidence that our RNS System is a safe and effective treatment for focal onset seizures and offers a lower risk profile than that of resective or ablative surgery. In addition, we believe our RNS System is superior in tolerability and efficacy to other neuromodulation approaches. We anticipate that the accruing evidence base from our ongoing Post-Approval Study and commercial experience with our RNS System will continue to demonstrate strong and improving clinical outcomes over time, which will support continued adoption.

Benefits to Other Stakeholders

In addition to offering important clinical benefits to patients, we believe our RNS System offers important distinctions for providers and payors.

Providers

We believe the unprecedented insights into brain activity that are enabled by our RNS System's differentiated ability to record iEEG data, offer clinicians the opportunity to more thoroughly understand patient specific brain activity in order to optimize treatment for their patients. With the benefit of objective, long-term data on seizure trends and treatment response, clinicians are better able to actively manage patient care and support improved outcomes over time. In a survey of 50 epileptologists and neurosurgeons at Level 3 and Level 4 epilepsy centers, 88% agreed that having 24/7 monitoring with chronic high-resolution intracranial EEG data is an important consideration and advantage in choosing RNS versus VNS or DBS.

Importantly, in addition to the availability of established clinician and facility reimbursement for the initial and replacement implant procedures, the patient's managing clinician can seek reimbursement for in person or remote iEEG data review up to once per month and for device programming. Because our RNS System is the only neuromodulation device that records iEEG data, we believe it is also the only neuromodulation device with established reimbursement for data review by clinicians during and between in-person clinic visits, which we believe is an important element of optimizing patient care.

Payors

Drug-resistant epilepsy is a costly condition that places a significant economic burden on healthcare systems as well as on patients and their families. The estimated direct costs of epilepsy alone are approximately \$28 billion

annually in the United States and are disproportionately accrued by individuals with uncontrolled drug-resistant epilepsy. By offering drug-resistant focal epilepsy patients a safe, effective treatment alternative that significantly reduces ongoing seizure frequency without stimulation-related side effects at therapeutic settings, we believe our RNS System has the potential to reduce the cost burden associated with drug-resistant epilepsy. We believe the established and favorable reimbursement paradigm for our RNS System, which covers both the implantation procedure and ongoing patient treatment provided by clinicians, endorses the value proposition that it offers payors.

We also believe that the unique ability for clinicians to review their patients' RNS System data online can facilitate telehealth delivery, potentially reducing the overall cost of care, while improving the patient experience. For example, many patients who might otherwise schedule a clinic visit because of a concern about seizures, can now contact their clinician from their home, who can then review their RNS System data online and provide care remotely.

Clinical Data

The safety, effectiveness, and clinical benefits of our RNS System are supported by data from four multi-center, FDA approved prospective clinical studies representing nearly 600 patients and multiple retrospective studies reporting real-world outcomes. Our robust and growing body of clinical evidence, which includes nine-year follow-up with over 2,500 years of patient data, provides the largest and longest published prospective clinical data set in the field of neuromodulation devices for epilepsy. Data from these studies collectively demonstrate that our RNS System provides significant, sustained, and improving reductions in disabling seizures with enduring improvements in quality of life and cognition for patients with drug-resistant focal epilepsy.

Our first prospective clinical trial, the Feasibility Study, was initiated to assess the safety and performance of our RNS System and to provide preliminary evidence of effectiveness for patients suffering from drug-resistant focal epilepsy. Data from the two-year Feasibility Study supported IDE approval for our two-year Pivotal Study, a double blinded randomized, sham-stimulation controlled multi-center study that was initiated in 2005 and provided Class I evidence of the safety and effectiveness of our RNS System. Data from the Pivotal Study supported FDA PMA approval of our RNS System. Patients from the Feasibility and Pivotal Studies were subsequently enrolled in our LTT study that followed these patients for an additional seven years, culminating in a total of nine years of follow-up data. We are currently conducting a prospective Post-Approval Study evaluating "real world" outcomes across more than 300 additional patients. We also intend to pursue studies to support label expansion for our RNS System in additional epilepsy populations.

Across the 256 patients that were enrolled in the Feasibility and Pivotal studies, the average age was 34 years old and the patients had experienced an average of 10.2 disabling seizures per month for an average of 19.6 years. All patients had previously tried multiple AEDs, 32% of patients had previously been treated with VNS, and 34% had previously undergone resective or ablative surgery.

Feasibility Study

The Feasibility Study was a two-year prospective, primarily open-label study of our RNS System in adult drug-resistant focal epilepsy patients that demonstrated safety and provided sufficient evidence of effectiveness to support the commencement of a pivotal study. Beginning in 2004, 65 patients were treated with our RNS System and 59 patients completed the study.

The primary safety endpoints were the rate of serious adverse events during the first month post-implant and the first three months post-implant. The serious adverse events rates at one month post-implant and three months post-implant of 6.2% and 9.2%, respectively, were not worse than the serious adverse event rates associated with the implantation of intracranial electrodes for localization procedures and epilepsy surgery at one month post-implant of 19%, or the historical adverse event rate for DBS for treatment of movement disorders at three months post-implant of 36%. During this two-year study, 53 serious adverse events, or SAEs, were reported, 18 of which were either associated with the RNS System or were inconclusive as to association with the RNS System. These SAEs included increased seizure frequency, wound erosion, confusion, death (one instance for which we were unable to conclude whether there was association with the RNS System), depression, headaches, or the requirement for explant surgery to remove the RNS System.

This safety experience combined with encouraging data on seizure outcomes supported commencement of the subsequent Pivotal Study.

Pivotal Study

The Pivotal Study was a two-year prospective, double-blinded, randomized, and sham-stimulation controlled study that provided Class I evidence indicating that our RNS System is safe and effective as an adjunctive treatment for adults with drug-resistant focal epilepsy arising from one or two seizure foci. Between December 2005 and November 2008, 191 patients were enrolled in the study and 175 of those patients completed the study.

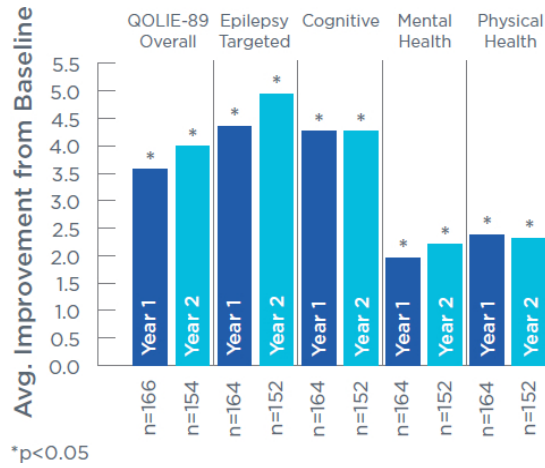
The primary effectiveness endpoint was assessed by comparing seizure reduction in the group receiving active stimulation (treatment group) relative to the group receiving no stimulation (sham group) during a 12-week blinded evaluation period relative to a 12-week pre-implant baseline. The primary effectiveness endpoint was met with a statistically significant difference between the reduction in seizure frequency for the treatment group relative to the sham group. In the final month of the blinded evaluation period (five months post-implant), patients in the treatment group reached a 41.5% reduction in seizures, compared to a 9.4% reduction for patients in the sham stimulation group.

The primary safety endpoint was also met, demonstrating that the serious adverse event rate at one month was not worse than the literature-derived serious adverse event rates for resective or ablative surgery, implantation of intracranial electrodes for seizure localization, and DBS for treatment of movement disorders.

Stimulation was also well-tolerated. There was no difference in stimulation-related side effects between active and sham patients in the blinded period and no adverse effects of responsive stimulation on cognitive function or mood. In fact, there were statistically significant improvements in a number of areas of cognitive function, including executive function, language, and memory. Memory improvements were most evident in patients with seizure onsets in memory regions and verbal fluency improvements were most significant in those with seizure onsets in language areas. Patients also experienced modest improvements in mood and a decrease in seizure worry at two years of treatment. During this two-year study 220 SAEs were reported, 67 of which were either associated with the RNS System or were inconclusive as to association with the RNS System. These SAEs included procedural complications (such as device lead revision or damage, skin laceration, subdural hematoma, premature battery depletion, or implant site erosion), nervous system disorders (such as an increase in complex partial seizures, exacerbation or increase in tonic-clonic seizures, or hydrocephalus), implant site infections, death (seven instances with one for which we were unable to conclude whether there was association with the RNS System), pain, and discharge.

Patients were also assessed for changes in Quality of Life, or QOL, as measured by a comprehensive industry-recognized questionnaire that is validated and widely used for patients suffering from epilepsy. As shown in the graph below, there were statistically significant sustained improvements in overall QOL as well as in every

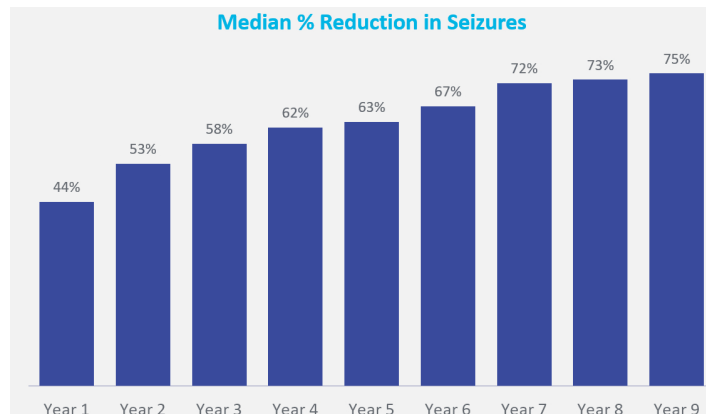
subdomain of QOL for patients who began treatment less than ten years after epilepsy onset at both one and two years follow-up.



Long-Term Treatment Study

The LTT study was a seven-year prospective, open-label study that followed patients originally treated in either the Feasibility or Pivotal Study. In total, this provided approximately nine years of prospective data on the safety and efficacy of our RNS System. The LTT study, which enrolled 230 patients, is the largest and longest prospective trial published in the field of neuromodulation to date and provided additional evidence that our RNS System is safe, reduces seizure frequency, and improves QOL in adults with drug-resistant focal epilepsy with one or two seizure foci. Enrolled patients were studied over a median follow-up of 8.97 years, representing 1,895 cumulative patient-implant years.

The primary effectiveness objective of the LTT study was to evaluate the long-term efficacy of our RNS System in reducing the frequency of disabling seizures in patients who participated in the Feasibility Study or Pivotal Study. As indicated in the figure below, the median percent reduction in seizure frequency improved from 44% after one year to 75% at nine years. We believe the substantial improvement in seizure reduction that was observed over time is due, in part, to the brain-responsive nature of our RNS System and the personalized, data-driven, and iterative therapy that it enables.



Additionally, at nine years, 35% of patients had a greater than 90% reduction in seizure frequency, with some of those patients being seizure-free for years, and 28% had at least one seizure-free period of six months or longer. These improvements were particularly notable given that at baseline the patients in this trial had on average more than 10 disabling seizures a month, with an average of nearly 20 years of epilepsy, and had failed multiple other epilepsy therapies. Overall QOL as well as the sub-domains of the comprehensive QOL score remained significantly improved relative to baseline at each year of treatment.

During this seven-year study 576 SAEs were reported, 93 of which were either associated with the RNS System or were inconclusive as to association with the RNS System. These SAEs included procedural complications (such as device lead revision or damage, skin laceration, fractures from falls, premature battery depletion, wound dehiscence, or implant site erosion), nervous system disorders (such as an increase in complex partial seizures, exacerbation or increase in tonic-clonic seizures, or headaches), implant site infections, device removal, death (nine instances with two for which we were unable to conclude whether there was association with the RNS System).

Post-Approval Study

We have completed enrollment for an FDA-mandated prospective open-label “real-world” study of our RNS System in drug-resistant focal epilepsy patients with a planned follow up period of five years. In this clinical study, our RNS System was implanted in 324 patients across 32 centers. The objectives of the clinical study are to collect additional information on the safety and effectiveness of our RNS System and to analyze patient outcomes and responses according to center experience and stimulation parameters. An interim analysis of 160 patients followed for one year that was presented at the American Epilepsy Society Annual Meeting in 2019 showed a 67% median reduction in seizure frequency compared to baseline, demonstrating significantly better outcomes than were seen in our Feasibility Study and Pivotal Study at that same time point. In addition, 38.5% of patients followed for more than one year experienced a greater than 90% reduction in seizure frequency.

During this five-year study, 112 SAEs were reported, 21 of which were either associated with the RNS System or were inconclusive as to association with the RNS System. These SAEs included nervous system disorders (such as Cerebral or intracranial hemorrhage and nerve paralysis), implant site infections, Subdural hematoma, Psychogenic seizure, and implant site erosion.

Publications and Retrospective Studies

Overall, there are more than 300 publications that provide information related to our RNS System. In addition to reviews and expert opinions on patient selection for RNS System treatment, these publications include studies of treatment outcomes in general and by specific brain regions or causes of epilepsy. Certain of these publications review surgical techniques and safety, as well as strategies for the implant location of the RNS neurostimulator and leads.

Another subset of these publications describes how the long-term iEEG data uniquely provided by our RNS System can offer significant benefits in managing epilepsy patients and driving fundamental research on epilepsy. These publications describe how long-term iEEG data can be used to identify seizure triggers, distinguish epileptic from non-epileptic seizures, inform surgical resection, or provide an early assessment of AED response. Recent analyses of RNS System data describe cycles in seizure activity that were not previously recognized, and propose that these data could assist in forecasting times when patients are at greater risk for seizures.

In addition, a number of these publications are retrospective studies of the “real-world” efficacy and utility of our RNS System, some of which have been supported, in part, by NeuroPace. The largest of these published retrospective studies was a retrospective chart review of 150 patients across eight epilepsy centers who were treated with our RNS System according to the approved indication for use. This study, which was published in July 2020 in *Epilepsia*, documented median reductions in seizure frequency over three years post-treatment that exceeded those from our Pivotal Study. The median reduction in seizure frequency at one year was 67% (149 patient sample size), which is consistent with the one-year interim results of our Post-Approval Study, and increased to 75% at two years (93 patient sample size) and 82% at three years (38 patient sample size). In addition, 35% of patients had a greater than or equal to 90% seizure frequency reduction at their last follow up visit. We believe the improvement in seizure frequency outcomes between our Pivotal Study and both our Post-Approval Study and this retrospective study

demonstrates the utility that our growing body of brain data is providing to drive better and faster seizure reduction outcomes.

Future Potential Studies

We also intend to pursue studies to support label expansion for our RNS System in additional epilepsy populations. We have IDE approval to conduct an open label study of our RNS System in adolescent patients ages 12 through 17 who have drug-resistant focal epilepsy from one or two foci. The objective of this study will be to demonstrate safety and effectiveness in this patient population, and to obtain data on quality of life, neuropsychological function, and social function. Importantly, our RNS System does not require any modifications to conduct this study. We expect to begin enrollment in this study in 2021.

Supported by evidence published in peer-reviewed journals, we also believe that our current RNS System may be able to effectively treat patients with drug-resistant generalized epilepsy. In the second half of 2021, we also plan to seek IDE approvals to initiate studies in generalized epilepsy.

Commercial Strategy

We designed our commercial strategy to primarily target epileptologists and neurosurgeons at Level 4 CECs in the United States. Within Level 4 CECs, epileptologists are the primary specialists who prescribe and manage therapy for drug-resistant focal epilepsy patients and neurosurgeons are the specialists who implant our RNS System. As of April 1, 2019, we estimate that there are approximately 1,200 epileptologists and 400 neurosurgeons associated with the approximately 200 Level 4 CECs in the United States. We also improve flow of appropriate patients to Level 4 CECs with sales and marketing initiatives designed to enhance awareness of our RNS System and increase referrals of drug-resistant epilepsy patients to these centers.

We market and sell our RNS System in the United States through a direct sales organization that, as of December 31, 2020, consisted of 21 sales representatives, known as Therapy Consultants, and 21 clinical and programming support specialists, known as Field Clinical Engineers. Our Therapy Consultants are highly skilled and technically trained with substantial experience launching new disruptive therapies, particularly in neuromodulation, and establishing them as a standard of care by increasing clinician adoption and utilization. Our Field Clinical Engineers have substantial experience training clinicians on the use of sophisticated technology and providing ongoing support for medical centers as they increase adoption of new therapies.

Our commercial organization supported 132 of the approximately 200 Level 4 CECs in completing new patient implant procedures in 2020 and also has a near-term opportunity to establish our RNS System as a routine therapy in an additional 44 centers where we have completed the vendor approval and contracting process. We believe that with limited additional resources, our current commercial organization has sufficient capacity to establish relationships with the remaining Level 4 CECs in the United States that are not yet using our RNS System and drive increased penetration in new and existing accounts. We do not currently sell our product in markets outside the United States.

Our Therapy Consultants are responsible for developing territory business plans, targeting and onboarding new accounts, and increasing adoption of our RNS System within accounts. In addition, Therapy Consultants support epileptologists and their staff in incorporating our RNS System into their practice, and provide resources to help with patient education, as well as working to increase referrals into Level 4 CECs. Together with our Field Clinical Engineers, they provide information that epileptologists can use to inform the development of appropriate patient selection protocols, and partner with the epilepsy care team to help incorporate our RNS System into their workflow. Our Field Clinical Engineers are responsible for ongoing account management including training clinicians on the use of our RNS System, promoting its benefits within existing accounts, and driving increased clinician utilization.

We support our sales organization with marketing and training initiatives designed to educate clinicians about our RNS System and support clinician adoption at Level 4 CECs. We have developed a robust professional education program that includes educational symposia, fellows training, programming workshops, and peer-to-peer

forums. Through webinars, clinical briefs, and scientific conferences, we keep our clinician customers informed about the rapidly growing body of peer-reviewed publications and scientific research involving our RNS System.

Our sales and marketing programs are also designed to increase referrals of drug-resistant epilepsy patients to Level 4 CECs. We estimate that only one in five drug-resistant epilepsy patients receive specialized care at a comprehensive epilepsy center. To drive increased patient flow to Level 4 CECs, we are beginning to scale our market development initiatives to engage epilepsy patients and caregivers through our advocacy partnerships and marketing programs. These programs include digital and social media campaigns, advertising, public relations, patient webinars, support groups, and patient ambassador programs. In addition, we plan to increase awareness of our RNS System amongst clinicians who care for epilepsy patients early in their care, including general neurologists, through education and outreach designed to drive patient referrals to Level 4 CECs. As we grow awareness and utilization of our RNS System, we plan to continue to enhance our marketing and analytics capabilities to support our growing customer base.

Research and Development

We focus our research and development efforts on advancing the treatment of patients suffering from disabling neurological disorders. These efforts are enhanced by the strong relationships that we have developed with epileptologists and neurosurgeons, as well as other neuroscientists and experts, through our clinical and commercial activities. We believe our brain-responsive RNS System is a platform that can drive a better standard of care for patients suffering from drug-resistant epilepsy, and can also offer a more personalized solution and improved outcomes to the large population of patients suffering from other brain disorders.

Our research and development activities encompass basic research, clinical research and product development. Our research and development team has mechanical, biomedical and electrical engineering, software development, project management, data science, and machine and deep learning expertise. In addition, our clinical organization has expertise as well as extensive experience in clinical trial design and management, data collection, data management, and clinical data analysis. Our clinical team has conducted three prospective clinical studies on our RNS System and completed enrollment in a fourth, prospective Post-Approval Study. We believe the strength and strategic vision of our research and development team, combined with our clinical and regulatory expertise, will continue to drive our leadership position in the emerging category of brain-responsive neuromodulation.

Our near-term research and development efforts are focused on continuing to improve therapy effectiveness, enhancing the patient and provider experience, and expanding the population of patients that can be treated with our RNS System. Our research and development activities have resulted in significant new releases of components of RNS System that advanced these goals. In 2018, we released a new easy-to-use tablet programmer for clinicians and a new neurostimulator with an eight-year average battery life. In 2020, our neurostimulator received MRI conditional labeling. In 2021, we released our nSight Platform. Our near-term development pipeline includes enhancements that leverage our extensive database of iEEG data and our advanced data analysis and AI capabilities, which provide clinicians with additional information that they can use to enhance their clinical assessment and establish appropriate program settings for each patient. In addition to our near-term efforts, we continue to focus on developing our next-generation neurostimulator and developing new features such as streamlined, remote programming capabilities.

We also maintain and will continue to build an intellectual property portfolio covering brain responsive neuromodulation and AI assessment of brain data. In the future, we intend to leverage these assets to expand into other brain disorders that we believe could benefit from the physiologic and engineering advantages made possible by our brain-responsive neuromodulation solution.

Coverage and Reimbursement

We derive substantially all of our revenue from sales of our RNS System, including both initial and replacement devices, to the hospital facilities, which are typically Level 4 CECs, that implant our RNS System in the United States. These facilities, in turn, bill third party payors, including private insurers, Medicare or Medicaid on a per procedure basis including for the implant procedure and post-implant programming and iEEG data review.

Given the relatively young average age of our patient population, many of our patients do not qualify for Medicare. As such, the third party payor mix for patients implanted with our RNS System has historically been more heavily weighted toward private insurers. As of December 31, 2020, commercial insurance companies that address approximately 200 million covered lives in the United States have positive written coverage policies for responsive neuromodulation for drug-resistant focal epilepsy, which includes our RNS System. Medicare and Medicaid also routinely provide coverage for implantation of our RNS System and follow-up care. Based on our experience, less than 1% of potential RNS System patients have been unable to undergo an implant procedure with our RNS System due to lack of payor coverage.

Initial implantation of our RNS System takes place in a single hospital inpatient procedure. Hospitals are generally reimbursed for inpatient procedures based on Medicare Severity Diagnosis Related Group, or MS-DRG, classifications derived from ICD-10 codes that describe the patient's diagnoses and procedure(s) performed during the hospital stay. One single MS-DRG payment is intended to cover all hospital costs associated with treating an individual during his or her hospital stay, with the exception of clinician charges associated with performing medical procedures, which are reimbursed through CPT codes and payments. While these MS-DRG and CPT codes are generally employed by both private insurers and government payors, the payment rates typically differ substantially, with private insurers generally providing reimbursement at higher rates than Medicare or Medicaid.

Hospitals code for implantation of our RNS System neurostimulator and implantation of the leads using separate ICD-10 procedure codes. When combined with an ICD-10 diagnosis code for epilepsy, the codes map into MS-DRG 023 for payment to the hospital. In federal fiscal year 2021, which runs from October 2020 through September 2021, we expect the Medicare average payment rate for MS-DRG 023 at our Level 4 CEC accounts to be approximately \$50,000. We believe that most DBS procedures for epilepsy map into MS-DRG 024 and we expect the Medicare average payment rate at Level 4 CECs for this code will be approximately \$35,000.

The neurosurgeons who implant our RNS System may seek reimbursement for their services using a variety of Category I CPT codes, depending on the type of leads implanted. These codes include CPT 61886 for implantation of a two lead system in addition to CPT codes 61850 or 61860 for cortical leads or CPT codes 61863 and 61864 for depth leads. We believe these codes for depth leads are the same CPT codes used for reimbursement of physician services for epilepsy DBS procedures. Based on 2021 Medicare national average payment rates, we expect that physician reimbursement under appropriate combinations of these codes may be between approximately \$2,500 to \$2,700 per procedure for our RNS System and approximately \$2,700 for epilepsy DBS procedures. We believe physician services for the VNS implantation procedure are reimbursed under CPT code 64568 which is associated with a 2021 Medicare national average payment rate of approximately \$600.

When the battery in our RNS neurostimulator reaches end of service the neurostimulator is typically replaced in a hospital outpatient procedure. Reimbursement for the facility in the outpatient setting is determined by CMS' comprehensive Ambulatory Payment Classification, or APC, system which assigns codes specifically related to a single procedure. Hospitals receive outpatient reimbursement based on the APC group assigned to the physician service or procedure performed, which are described by CPT codes. Our RNS System replacement procedure is coded with a Category I CPT code, which maps into APC-5465 for payment to the hospital, and we believe this is the same code used for the initial implant procedure for VNS. In 2021, we expect the Medicare average payment rate for APC-5465 at our Level 4 CEC accounts to be approximately \$30,800. The neurosurgeon is also reimbursed for services related to the replacement procedure based on the CPT code reported.

After implantation of our RNS System, the patient's ongoing care, including device programming and data review, is typically managed by an epileptologist or other qualified clinician. The patient's managing physician is able to seek reimbursement for programming on an as needed basis. The physician can also seek reimbursement a maximum of once every 30 days for in-person or remote review of iEEGs, which are also referred to as electrocorticograms, or ECoGs. The codes utilized for device programming for both RNS and DBS are CPT codes 95983 and 95984 and the code for ECoG review is CPT code 95836. We believe this CPT code for ECoG review is only applicable to our RNS System as it is currently the only commercially available implanted brain neuromodulation system that records, stores, and enables online review of the patient's ECoG data.

Based on 2021 Medicare national average payment rates, reimbursement under CPT codes 95983 and 95984 is expected to range from \$52 to \$97, depending on length of programming time. Reimbursement under CPT code 95836 is expected to be approximately \$107 for ECoG review. Accordingly, physician reimbursement for device programming and ECoG review during a typical RNS System follow-up visit could range from \$159 to \$204. We believe physicians submit claims for VNS device programming using code 95976 or 95977, depending on the number of device parameters changed. Based on Medicare national average payment rates, payment under these codes is expected to range from \$41 to \$55.

Competition

Our industry is competitive and has been evolving rapidly with the introduction of new products and technologies as well as the market activities of industry participants. Our RNS System is indicated for adult patients with drug-resistant focal epilepsy and we currently market our device primarily to the clinicians within Level 4 CECs that treat these patients. In this patient population, there are two primary treatment options: (i) an ablative or resective surgery, or (ii) implantation of a neuromodulation device. Patients may also choose not to actively seek additional treatment for epilepsy or may choose to trial new therapeutic drugs that become available from time to time. However, none of the AEDs that have been approved in the last decade have been demonstrated to show additional sustained effectiveness beyond that of the established AEDs.

We estimate that approximately 80% of drug-resistant focal epilepsy patients are either not ideal candidates for ablative or resective surgery or are unwilling to undergo a destructive surgical procedure and we compete with two manufacturers of neuromodulation devices for the treatment of these patients. Our competitors are LivaNova plc, which manufactures the VNS System and Medtronic plc, which manufactures the DBS System. These competitors are larger, well-capitalized companies with significant resources, which may include:

- established sales and marketing programs and networks, including internationally;
- broad product portfolios;
- long operating histories;
- established relationships with healthcare professionals;
- established manufacturing scale and supplier networks;
- financial resources for product development; and
- name recognition.

In addition to competing for market share, we also compete against these companies for qualified personnel.

We believe that our RNS System is a paradigm-shifting approach to treating drug-resistant focal epilepsy. By continuously monitoring the brain's electrical activity, recognizing and responding to patient-specific seizure onset patterns, and recording ongoing iEEG data that clinicians can use to optimize patient care, we believe our RNS System addresses the primary unmet needs in epilepsy care today. We compete primarily on the basis that our system is designed to offer superior tolerability and efficacy to other neuromodulation approaches, as well as access to continuous brain data. Our continued success depends on our ability to:

- continue to demonstrate safety and efficacy in our Post-Approval Study and in ongoing commercial use;
- expand our footprint of Level 4 CECs implanting our RNS System and increase utilization in new and existing CECs;
- increase the number of epileptologists recommending and the number of neurosurgeons implanting our RNS System;
- drive awareness to increase the number of drug-resistant epilepsy patients referred to Level 4 CECs;

- maintain adequate reimbursement for procedures using our product;
- attract and retain skilled research, development, sales and clinical personnel;
- continue to innovate in order to improve therapy effectiveness and enhance the patient and provider experience;
- obtain and maintain regulatory clearances and approvals, including for expanded indications;
- cost-effectively manufacture, market and sell our product; and
- obtain, maintain, enforce and defend our intellectual property rights and operate our business without infringing, misappropriating or otherwise violating the intellectual property rights of others.

Intellectual Property

Our commercial success depends in part on our ability to obtain and maintain intellectual property protection for our RNS System and any future products, to prevent others from infringing, misappropriating, or otherwise violating our intellectual property rights, to defend and enforce our intellectual property rights, and to operate without infringing, misappropriating, or otherwise violating valid and enforceable intellectual property rights of others. We actively seek to protect intellectual property that we believe is important to our business, which includes patents covering the components of our RNS System and the methods used for optimizing the therapy that our RNS System delivers. We also seek patent protection for other processes and inventions that are commercially or strategically important to developing and maximizing the value of our enterprise. We take steps to build and maintain the integrity of our brand, for example, with trademarks and service marks, and we seek to protect the confidentiality of trade secrets that may be important to the development of our business. We rely on a strategy that combines the use of patents, trademarks, trade secrets, know-how, and license agreements, as well as other intellectual property laws, employment, confidentiality and invention assignment agreements, and contractual protections, to establish and protect our intellectual property rights.

Patents

Patent Portfolio

Our patents and patent applications assert claims generally related to devices, methods and systems. As of December 31, 2020, we owned 132 issued U.S. patents and 14 non-provisional patent applications pending in the U.S. Patent and Trademark Office, or the USPTO. Of our U.S. patents, 28 have claims that cover our current RNS System or related products, such as the system itself and methods of using it, as well as the brain leads, lead connector, neurostimulator tray or ferrule, and elements used in the manufacture of the same. These patents have anticipated expiration dates ranging from April 2021 to November 2034. Additionally, we own 104 U.S. patents and 14 pending applications that have claims directed to: detecting anomalous brain activity and the source thereof; modulating brain activity - such as with electrical stimulation - to treat disorders and diseases of the nervous system; efficient communication or data transfer between implantable and external components of a neuromodulation system; the use of data to optimize therapy outcomes, such as by using artificial intelligence and deep learning techniques; and various combinations thereof. These other 104 U.S. patents have anticipated expiration dates ranging from April 2021 to August 2038. We own six issued foreign patents, including in Canada, Australia, the U.K., and Germany directed to systems and methods for modulating brain activity. The six foreign patents are expected to expire in October 2028. The anticipated expiration dates are without taking into account all possible patent term adjustments, extensions, or abandonments, and assuming payment of all appropriate maintenance, renewal, annuity, and other governmental fees. We continue to evaluate our intellectual property portfolio as patents reach end of life to determine the optimal course for continuing to protect our technology.

We cannot ensure that patents will issue from any of our pending applications or that, if patents are issued, they will be of sufficient scope or strength to provide meaningful protection for our technology.

Patent Strategy

Our patent strategy is to seek patent protection for our inventions and to preserve our options to file additional applications pursuing claims covering specific commercial embodiments of the inventions, assuming these are strategically valuable. We also file patent applications covering innovations and developments to prevent third parties from developing competing products. Additionally, where appropriate, we file patent applications covering inventions related to new technologies or novel applications of our products and processes in areas beyond the scope of where we are focusing our resources in the near term, in order to preserve optionality as our business grows and to prevent third parties from expanding their reach. From time to time, we may also in-license or out-license patents in accordance with our patent strategy. For all patent applications, we determine claiming strategy on a case-by-case basis. Advice of counsel, as well as our business model and needs are also considered.

We recognize that the ability to obtain patent protection and the degree of such protection depends on a number of factors. The patent positions of medical device companies like ours are generally uncertain and involve complex legal, scientific, and factual questions. The protection afforded by a patent varies on a product-by-product basis, from jurisdiction-to-jurisdiction, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of patent term adjustments and extensions, the availability of legal remedies, and the validity and enforceability of the patent.

In addition, the coverage claimed in a patent application can be significantly narrowed before the patent is issued, and patent claims can be reinterpreted or further altered even after patent issuance. We cannot predict whether the patent applications we are currently pursuing will issue as patents or whether the claims of any issued patents will provide sufficient protection from competitors. A competitor could develop systems, devices, or methods of manufacture or treatment that are not covered by our patents. Accordingly, our ability to stop third parties from commercializing any of our patented inventions, either directly or indirectly, will depend in part on our success in obtaining, maintaining, defending, and enforcing patent claims that adequately cover our inventions.

Our commercial success will also depend, in part, on not infringing, misappropriating, or otherwise violating the intellectual property rights of third parties. Third parties own numerous patents in the U.S. and in jurisdictions outside the U.S. with claims directed to inventions in the fields in which we operate or plan to operate. It is uncertain whether the issuance of any third-party patent would require us to alter our development or commercial strategies, seek licenses, cease certain activities, or participate in USPTO proceedings. Moreover, such licenses may not be available on commercially reasonable terms or at all. Our breach of any license agreements or failure to obtain a license necessary to our business may have a material adverse impact on us.

On July 27, 2005, we entered into a cross-license agreement, or the Cross-License, with Medtronic, Inc., or Medtronic, directed to patent families in a field of use that is generally aligned with our business interests, including direct electrical stimulation or monitoring of the brain via electrodes attached to or implanted in the head for the treatment or diagnosis of epilepsy and other disorders, or the Field. Under the terms of the Cross-License, Medtronic granted to us a royalty-bearing, worldwide, non-exclusive, license in the Field to certain patent families owned or controlled by Medtronic or acquired by or licensed to Medtronic. In turn, we granted to Medtronic a royalty-bearing, worldwide, non-exclusive license in the Field to certain patents owned or controlled by us or acquired by or licensed to us. The term of the Cross-License extends through the life of the licensed patents, unless it is extended by the parties or otherwise terminated early pursuant to its terms. The Cross-License provides that each party may terminate the Cross-License if the other party materially breaches the Cross-License and does not cure the breach within a specified period of time.

Trademarks

Our trademark portfolio is designed to protect the brands of our RNS System and any future products. As of December 31, 2020, we own 23 trademark registrations, four of which are U.S. trademark registrations and the rest in various other countries or regions. We own trademark registrations for “NeuroPace,” the “NeuroPace” logo, and “RNS” in the United States and various other countries, and “WINDOW TO THE BRAIN” in the U.S.

Trade Secrets

We also rely on trade secrets relating to our product and technology, and we maintain the confidentiality of such proprietary information to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection. We seek to protect our trade secrets and know-how by entering into confidentiality and invention assignment agreements with employees, contractors, consultants, suppliers, customers, and other third parties, who have access to such information. These agreements generally provide that all confidential information concerning our business or financial affairs developed or made known to the individual during the course of the individual's relationship with us are to be kept confidential and not disclosed to third parties except in specific circumstances.

For more information regarding the risks related to our intellectual property, please see "Risk Factors—Risks Related to Our Intellectual Property."

Manufacturing and Supply

We currently manufacture our RNS System at and distribute all of the components of our RNS System from our approximately 53,000 square foot facility in Mountain View, California. This facility provides approximately 20,000 square feet of space for our production and distribution operations, including manufacturing, quality control and storage. We believe our existing facility will be sufficient to meet our current and near-term manufacturing needs.

Our manufacturing and distribution operations are subject to regulatory requirements of the FDA's Quality System Regulation, or QSR, for medical devices sold in the United States. The FDA monitors compliance with the QSR through periodic inspections of our facilities and may include our suppliers' facilities as well. We are also subject to applicable state and local regulations 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.

Our failure, or the failure of our suppliers, to maintain acceptable quality requirements could result in substantial fines, the shutdown of our manufacturing operations or the recall of our components of our RNS System, which would harm our business. In the event that one of our suppliers fails to maintain acceptable quality requirements, we may have to find and qualify a new supplier and could experience a material adverse effect to our manufacturing operations and result in manufacturing delays.

We believe our quality management system is compliant with FDA Quality Systems Regulations. We have been an FDA registered medical device establishment since 2014 and California licensed medical device manufacturer since 2004. We moved to our current Mountain View, California facility in March 2012.

The FDA conducted a PMA pre-approval inspection of our manufacturing facility in Mountain View, California prior to our PMA approval, as well as an establishment inspection in September 2014 which resulted in no 483 observations. We were accepted into the FDA Voluntary Improvement Program pilot in 2018 and we are in our third year of participation. The FDA Voluntary Improvement Program pilot is part of the FDA's Case for Quality Program. As a participant in this pilot, we have an on-site appraisal once a year during which an appraisal team assesses our processes to determine areas for improvement, and we have subsequent quarterly check-in assessments that are designed to discuss our progress in continuous improvement. For companies that participate in this pilot program, the FDA forgoes conducting routine facility inspections and pre-approval inspections in order to allow participants to shift resources to innovation and improvement efforts. We believe that we are in compliance, in all material respects, with applicable FDA and QSR requirements.

The materials, components, and sub-assemblies of our RNS System, as well as manufacturing services, are provided by qualified and approved suppliers, most of which are single source suppliers. For example, Micro Systems Technologies Management AG and Greatbatch Ltd are single source suppliers of key components of our products, including printed circuit assemblies and batteries. Other qualified and approved suppliers provide additional components, materials, and services, which include silicone adhesive, integrated circuits, and other components. We typically maintain several months' worth of inventory on critical components. From time to time we have experienced issues with our suppliers. To date, these issues have not had a material impact on our

operations. We estimate that qualifying a second source supplier would be a lengthy process. Our suppliers are evaluated, qualified and approved through our supplier management program, which includes various evaluations, assessments, qualifications, validations, testing and inspection to ensure the supplier can meet acceptable quality and regulatory requirements.

Order quantities and lead times for materials, components, and sub-assemblies purchased from suppliers are based on our forecasts derived from historical demand and anticipated future demand. We perform assembly, testing, inspection and final release activities for our RNS System at our Mountain View, California facility.

Government Regulation

Regulation of Medical Devices in the United States

Our RNS System and our operations are subject to extensive and ongoing regulation by the FDA under the Federal Food, Drug, and Cosmetic Act of 1938 and its implementing regulations, collectively referred to as the FDCA, 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, preclinical and clinical testing and research, manufacturing, safety, efficacy, packaging, labeling, storage, record keeping and reporting, clearance or approval, adverse event reporting, advertising, marketing, distribution, promotion, import and export and post-marketing surveillance, to ensure that medical devices distributed domestically are safe and effective for their intended uses and otherwise meet the requirements of the FDCA. Failure to comply with applicable requirements may subject a device and/or its manufacturer to a variety of administrative sanctions, such as FDA refusal to approve pending premarket applications, issuance of warning letters, mandatory product recalls, import detentions, civil monetary penalties, and/or judicial sanctions, such as product seizures, injunctions and criminal prosecution.

FDA Premarket Clearance and Approval Requirements

Unless an exemption applies, each medical device commercially distributed in the United States requires either FDA approval of a PMA, clearance of a 510(k) premarket notification, or grant of a de novo request for classification. Under the FDCA, medical devices are classified into one of three classes—Class I, Class II, or Class III—depending on the degree of risk associated with each medical device and the extent of manufacturer and regulatory control needed to provide reasonable assurance of its safety and effectiveness. Classification of a device is important because the class to which a device is assigned determines, among other things, the necessity and type of FDA review required prior to marketing the device, making changes to the device, or otherwise using the device.

Class I devices include those with the lowest risk to the patient and are those for which safety and effectiveness can be reasonably assured by adherence to the FDA's "general controls" for medical devices, which include compliance with the applicable portions of the QSR, facility registration and product listing, reporting of adverse medical events and malfunctions through the submission of Medical Device Reports, or MDRs, and appropriate, truthful and non-misleading labeling, advertising, and promotional materials. Some Class I or low risk devices also require premarket clearance by the FDA through the 510(k) premarket notification process described below.

Class II devices are moderate risk devices subject to the FDA's general controls, and any other "special controls" deemed necessary by the FDA to ensure the safety and effectiveness of the device, such as performance standards, product-specific guidance documents, special labeling requirements, patient registries, or post-market surveillance. Premarket review and clearance by the FDA for Class II devices is accomplished through the 510(k) premarket notification process, though certain Class II devices are exempt from this premarket review process. When required, the manufacturer must submit to the FDA a premarket notification, or 510(k), submission demonstrating that the device is "substantially equivalent" to a legally marketed device, which in some cases may require submission of clinical data. Unless a specific exemption applies, 510(k) premarket notification submissions are subject to user fees. If the FDA determines that the device, or its intended use, is not substantially equivalent to a legally marketed device, the FDA will place the device, or the particular use of the device, into Class III, and the device sponsor must then fulfill more rigorous premarketing requirements.

Class III devices include devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices and devices deemed not substantially equivalent to a predicate device following a

510(k) submission. The safety and effectiveness of Class III devices cannot be reasonably assured solely by general or special controls. Submission and FDA approval of a PMA, application is required before marketing of a Class III device can proceed. As with 510(k) submissions, unless an exemption applies, PMA submissions are subject to user fees. The PMA process is much more demanding than the 510(k) premarket notification process. A PMA application is required, which is intended to demonstrate that the device is reasonably safe and effective for its intended use and must be supported by extensive data, typically including data from preclinical studies and clinical trials.

Some pre-amendment devices (devices that were on the market prior to May 28, 1976) are unclassified, but are subject to the FDA's premarket notification and clearance process in order to be commercially distributed.

PMA Approval Pathway

Our RNS System is a Class III device, which required PMA approval before it could be marketed. Additionally, there are certain pre-amendment Class III devices for which the FDA has not yet required a PMA, which are cleared through the 510(k) process. The PMA process is generally more demanding than the 510(k) premarket notification process. In a PMA, the manufacturer must demonstrate that the device is reasonably safe and effective, and the PMA must be supported by extensive data, including data from preclinical studies and clinical trials. The PMA must also contain a full description of the device and its components, a full description of the methods, facilities and controls used for manufacturing, and proposed labeling. Following receipt of a PMA, the FDA determines whether the application is sufficiently complete to permit a substantive review. If the FDA accepts the application for review, it has 180 days under the FDCA to complete its review of a PMA, although in practice, the FDA's review may take and often takes significantly longer, sometimes taking up to several years. An advisory panel of experts from outside the FDA may be convened to review and evaluate the application and provide recommendations to the FDA as to the approvability of the device. The FDA may or may not accept the panel's recommendation. In addition, the FDA will generally conduct a pre-approval inspection of the applicant or its third-party manufacturers' or suppliers' manufacturing facility or facilities to ensure compliance with the QSR.

The FDA will approve the new device for commercial distribution if it determines that the data and information in the PMA constitute valid scientific evidence and that there is reasonable assurance that the device is safe and effective for its intended use(s). The FDA may approve a PMA with post-approval conditions intended to ensure the safety and effectiveness of the device, including, among other things, restrictions on labeling, promotion, sale and distribution, and collection of long-term follow-up data from patients in the clinical trial that supported PMA approval or requirements to conduct additional studies post-approval. The FDA may also condition PMA approval on some form of post-market surveillance when deemed necessary to protect the public health or to provide additional safety and efficacy data for the device in a larger population or for a longer period of use. In such cases, the manufacturer might be required to follow certain patient groups for a number of years and to make periodic reports to the FDA on the clinical status of those patients. Failure to comply with the conditions of approval can result in material adverse enforcement action, including withdrawal of the approval.

Certain changes to an approved device, such as changes in manufacturing facilities, certain suppliers, methods, or quality control procedures, or changes in the design performance specifications, that affect the safety or effectiveness of the device, require submission of a PMA supplement. PMA supplements often require submission of the same type of information as a PMA, except that the supplement is limited to information needed to support any changes from the device covered by the original PMA and may not require as extensive clinical data or the convening of an advisory panel. Certain other changes to an approved device require the submission of a new PMA, such as when the design change causes a different intended use, mode of operation, and technical basis of operation, or when the design change is so significant that a new generation of the device will be developed, and the data that were submitted with the original PMA are not applicable for the change in demonstrating a reasonable assurance of safety and effectiveness. Changes to our existing product or the development of new products may require the approval of a PMA or additional submissions of PMA supplements.

510(k) Marketing Clearance Pathway

One of the components of our RNS System, our Burr Hole Cover, which may be used to cover the incision site for depth leads, is subject to premarket notification and clearance under section 510(k) of the FDCA. To

obtain 510(k) clearance for a medical device, an applicant must submit to the FDA a 510(k) submission demonstrating that the proposed device is “substantially equivalent” to a legally marketed device, known as a “predicate device.” A legally marketed predicate device may include a pre-amendment device, a device that has been reclassified from Class III to Class II or Class I, or a device that was found substantially equivalent through the 510(k) process. A device is substantially equivalent if, with respect to the predicate device, it has the same intended use and has either (i) the same technological characteristics, or (ii) different technological characteristics, but the information provided in the 510(k) submission demonstrates that the device does not raise new questions of safety and effectiveness and is at least as safe and effective as the predicate device. A showing of substantial equivalence sometimes, but not always, requires clinical data.

Before the FDA will accept a 510(k) submission for substantive review, the FDA will first assess whether the submission satisfies a minimum threshold of acceptability. If the FDA determines that the 510(k) submission is incomplete, the FDA will issue a “Refuse to Accept” letter which generally outlines the information the FDA believes is necessary to permit a substantive review and to reach a determination regarding substantial equivalence. An applicant must submit the requested information within 180 days before the FDA will proceed with additional review of the submission. Once the 510(k) submission is accepted for review, by regulation, the FDA has 90 calendar days to review and issue a determination. As a practical matter, clearance may take and often does take longer. Upon review, the FDA may require additional information, including clinical data, to make a determination regarding substantial equivalence.

If the FDA agrees that the device is substantially equivalent to a predicate device currently on the market, it will grant 510(k) clearance to commercially market the device. If the FDA determines that the device is “not substantially equivalent” to a previously cleared device, for example, due to a finding of a lack of a predicate device, that the device has a new intended use or different technological characteristics that raise different questions of safety or effectiveness when the device is compared to the cited predicate device, the device is automatically designated as a Class III device. The device sponsor must then fulfill more rigorous PMA requirements, or can request a risk-based classification determination for the device in accordance with the “de novo” process, which is a route to market for novel medical devices that are low to moderate risk and are not substantially equivalent to a predicate device. If the FDA determines that the information provided in a 510(k) submission is insufficient to demonstrate substantial equivalence to the predicate device, the FDA generally identifies the specific information that needs to be provided so that the FDA may complete its evaluation of substantial equivalence, and such information may be provided within the time allotted by the FDA or in a new 510(k) submission should the original 510(k) submission have been withdrawn.

After a device receives 510(k) marketing clearance, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change or modification in its intended use, will require a new 510(k) marketing clearance or, depending on the modification, PMA approval. The determination as to whether or not a modification could significantly affect the device’s safety or effectiveness is initially left to the manufacturer using available FDA guidance. Many minor modifications today are accomplished by a “letter to file” in which the manufacturer documents the rationale for the change and why a new 510(k) submission is not required. However, the FDA may review such letters to file to evaluate the regulatory status of the modified product at any time and may require the manufacturer to cease marketing and recall the modified device until 510(k) marketing clearance or PMA approval is obtained. The manufacturer may also be subject to significant regulatory fines or penalties.

De novo Classification

Medical device types that the FDA has not previously classified as Class I, II, or III are automatically classified into Class III regardless of the level of risk they pose. To market low to moderate risk medical devices that are automatically placed into Class III due to the absence of a predicate device, a manufacturer may request a de novo classification. This procedure allows a manufacturer whose novel device is automatically classified into Class III to request classification of its medical device into Class I or Class II on the basis that the device presents low or moderate risk, rather than requiring the submission and approval of a PMA application. A medical device may be eligible for de novo classification if the manufacturer first submitted a 510(k) premarket notification and received a determination from the FDA that the device was not substantially equivalent or a manufacturer may request de novo classification directly without first submitting a 510(k) premarket notification to the FDA and receiving a not

substantially equivalent determination. The FDA is required to classify the device within 120 calendar days following receipt of the de novo application, although in practice, the FDA's review may take significantly longer. During the pendency of the FDA's review, the FDA may issue an additional information letter, which places the de novo request on hold and stops the review clock pending receipt of the additional information requested. In the event the de novo requestor does not provide the requested information within 180 calendar days, the FDA will consider the de novo request to be withdrawn. If the manufacturer seeks reclassification into Class II, the manufacturer must include a draft proposal for special controls that are necessary to provide a reasonable assurance of the safety and effectiveness of the medical device. In addition, the FDA may reject the de novo request for classification if it identifies a legally marketed predicate device that would be appropriate for a 510(k) or determines that the device is not low to moderate risk or that general controls would be inadequate to control the risks and special controls cannot be developed. In the event the FDA determines the data and information submitted demonstrate that general controls or general and special controls are adequate to provide reasonable assurance of safety and effectiveness, the FDA will grant the de novo request for classification. When the FDA grants a de novo request for classification, the device is granted marketing authorization and further can serve as a predicate for future devices of that type, through a 510(k) premarket notification. We currently do not have any products with a de novo classification.

Clinical Trials

Clinical trials are typically required to support a PMA, oftentimes for a de novo request for classification, and are sometimes required to support a 510(k) submission. As has and continues to be required for our RNS System, all clinical investigations of devices to determine safety and effectiveness must be conducted in accordance with the FDA's investigational device exemption, or IDE, regulations which govern investigational device labeling, prohibit promotion of the investigational device, and specify an array of recordkeeping, reporting and monitoring responsibilities of study sponsors and study investigators. If the device presents a "significant risk," as defined by the FDA, to human health, the FDA requires the device sponsor to submit an IDE application to the FDA, which must be approved prior to commencing clinical trials. A significant risk device is one that presents a potential for serious risk to the health, safety, or welfare of a patient and either is implanted, like our RNS System, purported or represented to be used in supporting or sustaining human life, is for a use that is substantially important in diagnosing, curing, mitigating, or treating disorders or otherwise preventing impairment of human health, or otherwise presents a potential for serious risk to a subject. An IDE application must be supported by appropriate data, such as animal and laboratory test results, showing that it is safe to test the device in humans and that the testing protocol is scientifically sound. A clinical trial may begin 30 days after receipt of the IDE by the FDA unless the FDA notifies the company that the investigation may not begin. If the FDA determines that there are deficiencies or other concerns with an IDE for which it requires modification, the FDA may permit a clinical trial to proceed under a conditional approval. Acceptance of an IDE application for review does not guarantee that the FDA will approve the IDE and, if it is approved, the FDA may or may not determine that the data derived from the trials support the safety and effectiveness of the device or warrant the continuation of clinical trials. An IDE supplement must be submitted to, and approved by, the FDA before a sponsor or investigator may make a change to the investigational plan that may affect its scientific soundness, study plan or the rights, safety or welfare of human subjects.

In addition, the clinical trials must be approved by, and conducted under the oversight of, an Institutional Review Board, or IRB, for each clinical site. The IRB is responsible for the initial and continuing review of the IDE, and may pose additional requirements for the conduct of the study. If an IDE application is approved by the FDA and one or more IRBs, clinical trials may begin at a specific number of investigational sites with a specific number of patients, as approved by the FDA.

If the device is considered a "non-significant risk," IDE submission to FDA is not required. Instead, only approval from the IRB overseeing the investigation at each clinical trial site is required. Abbreviated IDE requirements, such as monitoring the investigation, ensuring that the investigators obtain informed consent, and labeling and record-keeping requirements also apply to non-significant risk device studies.

During a study, the sponsor is required to comply with the applicable FDA requirements, including, for example, trial monitoring, selecting clinical investigators and providing them with the investigational plan, ensuring

IRB review, adverse event reporting, record keeping and prohibitions on the promotion of investigational devices, or on making safety or effectiveness claims for them. The clinical investigators in the clinical trial are also subject to FDA's regulations and must obtain patient informed consent, rigorously follow the investigational plan and study protocol, control the disposition of the investigational device, and comply with all applicable reporting and record keeping requirements.

Additionally, after a trial begins, the FDA or the IRB could suspend or terminate a clinical trial at any time for various reasons, including a belief that the risks to study subjects outweigh the anticipated benefits. Even if a clinical trial is completed, there can be no assurance that the data generated during a clinical trial will meet the safety and effectiveness endpoints or otherwise produce results that will lead the FDA to grant marketing clearance or approval.

Post-market Regulation

After a device is cleared or approved for marketing, numerous and pervasive regulatory requirements continue to apply. These include:

- Annual Reports: As is required for our RNS System, continued FDA approval may be contingent upon the submission of periodic reports, required under 21 CFR 814.84, at intervals of one year (unless otherwise specified) from the date of approval of the original PMA;
- Post-Approval Study Report: As is required for our RNS System, continued FDA approval may also be contingent upon the submission of Post-Approval Study data, as requested by the FDA;
- establishment registration and device listing with the FDA;
- QSR requirements, which require manufacturers and contract manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the design and manufacturing process;
- labeling regulations and FDA prohibitions against the promotion of investigational products, or "off-label" uses of cleared or approved products;
- requirements related to promotional activities;
- clearance or approval of product modifications to 510(k)-cleared devices that could significantly affect safety or effectiveness or that would constitute a major change in intended use of one of our cleared devices;
- medical device reporting regulations, which require that a manufacturer report to the FDA if a device it markets may have caused or contributed to a death or serious injury, or has malfunctioned and the device or a similar device that it markets would be likely to cause or contribute to a death or serious injury, if the malfunction were to recur;
- correction and removal reporting regulations, which require that manufacturers report to the FDA field corrections and product removals if undertaken to reduce a risk to health posed by the device or to remedy a violation of the FDCA that may present a risk to health;
- the FDA's recall authority, whereby the agency can order device manufacturers to recall from the market a product that is in violation of governing laws and regulations; and
- post-market surveillance activities and regulations, which apply when deemed by the FDA to be necessary to protect the public health or to provide additional safety and effectiveness data for the device.

Advertising and promotion of medical devices, in addition to being regulated by the FDA, are also regulated by the Federal Trade Commission and by state regulatory and enforcement authorities. Recently, promotional activities for FDA-regulated products have been the subject of enforcement action brought under healthcare

reimbursement laws and consumer protection statutes. In addition, under the federal Lanham Act and similar state laws, competitors and others can initiate litigation relating to advertising claims. In general, if the FDA determines that our promotional materials, technical guidance, or training constitutes promotion of an unapproved or uncleared use, it could request that we modify our training, technical guidance, or promotional materials or subject us to regulatory or enforcement actions. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our promotional, technical guidance, or training materials to constitute promotion of an unapproved or uncleared use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement.

Manufacturing processes for commercial products are required to comply with the applicable portions of the QSR, which cover the methods and the facilities and controls for the design, manufacture, testing, production, processes, controls, quality assurance, labeling, packaging, distribution, installation and servicing of finished devices intended for human use. The QSR also requires, among other things, maintenance of a device master file, design history file, device history records, and complaint files. As a manufacturer, we are subject to periodic scheduled or unscheduled inspections by the FDA. Failure to maintain compliance with the QSR requirements could result in the shut-down of, or restrictions on, manufacturing operations and the recall or seizure of products, which would harm our business. The discovery of previously unknown problems with our product, including unanticipated adverse events or adverse events of increasing severity or frequency, whether resulting from the use of the device within the scope of its clearance or off-label by a clinician in the practice of medicine, could result in restrictions on the device, including the removal of the product from the market or voluntary or mandatory device recalls.

The FDA has broad regulatory compliance and enforcement powers. If the FDA determines that we failed to comply with applicable regulatory requirements, it can take a variety of compliance or enforcement actions, which may result in any of the following sanctions:

- untitled letters, warning letters, fines, injunctions, consent decrees and civil penalties;
- unanticipated expenditures to address or defend such actions;
- customer notifications for repair, replacement, refunds;
- recall, detention or seizure of our RNS System or any future products;
- operating restrictions or partial suspension or total shutdown of production;
- refusal of or delay in granting our requests for 510(k) clearance or PMA approval of new products or modified products;
- operating restrictions;
- withdrawing 510(k) clearance or PMA approvals that are already granted;
- refusal to grant export approval for our RNS System or any future products; or
- criminal prosecution.

Other Healthcare and Privacy Laws

Our RNS System and our operations are also subject to various federal, state and local laws targeting fraud and abuse in the healthcare industry. For example, in the United States, there are federal and state anti-kickback laws that prohibit the payment or receipt of kickbacks, bribes or other remuneration intended to induce the purchase or recommendation of healthcare products and services or reward past purchases or recommendations.

Violations of these laws can lead to significant civil and criminal penalties, including fines, disgorgement, imprisonment and exclusion from participation in federal healthcare programs, integrity oversight and reporting obligations, contractual damages, reputational harm, diminished profits and future earnings and the forced curtailment or restructuring of our operations. These laws are applicable to us as a medical device company and also

apply to hospitals, epileptologists, neurologists, neurosurgeons, and other potential purchasers or users of our RNS System or any future products.

In particular, the federal Anti-Kickback Statute (42 U.S.C. § 1320a-7b(b)) prohibits persons from knowingly and willfully soliciting, receiving, offering or providing remuneration, directly or indirectly, to induce either the referral of an individual, or the furnishing, recommending or arranging for a good or service, for which payment may be made under a federal healthcare program such as the Medicare and Medicaid programs. Remuneration is not defined in the federal Anti-Kickback Statute and has been broadly interpreted to include anything of value, including, for example, gifts, discounts, coupons, the furnishing of supplies or equipment, provision of items or services with independent value such as administrative support, credit arrangements, payments of cash, waivers of payments, ownership interests, relieving a referral source of a financial or administrative burden, and the provision of anything at less than its fair market value. The federal Anti-Kickback Statute and implementing regulations provide for certain narrow exceptions and “safe harbors” for certain defined practices including discounting, rebating or personal services arrangements, among other things. In addition, a person or entity does not need to have actual knowledge of this statute or specific intent to violate it in order to have committed a violation. In addition, the government may assert that a claim, including items or services resulting from a violation of federal Anti-Kickback Statute, constitutes a false or fraudulent claim for purposes of the civil False Claims Act or the civil monetary penalties statute, which imposes fines against any person who is determined to have presented or caused to be presented claims to a federal healthcare program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent. Moreover, the lack of uniform court interpretation of the Anti-Kickback Statute makes compliance with the law difficult.

Violations are also subject to civil monetary penalties, which can be further assessed under the federal False Claims Act. Violations of the federal Anti-Kickback Statute may also result in civil and criminal penalties, including criminal fines and imprisonment, or exclusion from Medicare, Medicaid or other governmental programs.

Certain arrangements between medical device companies and referring, or prescribing clinicians have been identified in fraud alerts issued by the OIG as implicating the Anti-Kickback Statute. Moreover, the provision of payments or other items of value by a medical device company to a referral source could be prohibited under the Stark Law (described below) unless the arrangement meets all criteria of an applicable exception. The government has been active in enforcement of these laws as they apply to medical device companies.

Other federal healthcare fraud-related laws also provide criminal liability for violations. The Criminal Healthcare Fraud statute (18 U.S.C. § 1347) prohibits knowingly and willfully executing a scheme to defraud any healthcare benefit program, including payors. Federal criminal law at 18 U.S.C. § 1001, among other sections, prohibits knowingly and willfully falsifying, concealing, or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services.

The civil False Claims Act imposes liability on any person or entity who, 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 False Claims Act allow a private individual to bring civil actions on behalf of the federal government alleging that the defendant has submitted or caused the submission of a false claim to the federal government, and to share in any monetary recovery. These laws can apply to entities that provide information on coverage, coding, and reimbursement of their products and assistance with obtaining reimbursement to persons who bill payors. When an entity is determined to have violated the federal civil False Claims Act, the government may impose civil fines and, plus treble damages, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs. In addition, various states have enacted false claim laws analogous to the federal False Claims Act.

The Civil Monetary Penalty Act of 1981 imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal healthcare program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent, or offering or transferring remuneration to a federal healthcare beneficiary that a person knows or should know is likely

to influence the beneficiary's decision to order or receive items or services reimbursable by the government from a particular provider or supplier.

The Stark Law prohibits payments made by a clinician (as defined under such law) to a medical device company in exchange for the delivery of a product or provision of a services, presenting or causing to be presented claims to Medicare and Medicaid for products or services referred by clinicians who personally, or through a family member, have an investment interest in, or a compensation arrangement with, the medical device company manufacturing the product or delivering the service, unless an exception applies. Similarly, medical device companies may not bill Medicare for services furnished pursuant to a prohibited self-referral. Any person who presents or causes to be presented a claim to the Medicare or Medicaid programs in violation of the Stark Law is subject to civil monetary penalties and possible exclusion from participation in federal governmental payor programs. Sanctions for violating the Stark Law include denial of payment, civil monetary and exclusion from the federal health care programs. Failure to refund amounts received as a result of a prohibited referral on a timely basis may constitute a false or fraudulent claim and may result in civil penalties and additional penalties under the FCA. The statute also provides for additional penalties for a circumvention scheme. In addition, many states, including California, also have state anti-"self-referral" and other laws that are not limited to Medicare and Medicaid referrals, with which we must comply.

HIPAA also created additional federal criminal statutes that prohibit among other actions, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including payors, knowingly and willfully embezzling or stealing from a healthcare benefit program, willfully obstructing a criminal investigation of a healthcare offense, and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation.

The Federal Physician Payments Sunshine Act under the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively referred to as the Affordable Care Act, which require certain applicable manufacturers of devices, drugs, biologics, kits that required FDA approval or clearance, and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, or CHIP, to report annually to the Centers for Medicare and Medicaid Services, or CMS, information related to payments and other transfers of value to physicians, defined to include doctors, dentists, optometrists, podiatrists and chiropractors, and teaching hospitals, and applicable manufacturers and group purchasing organizations, to report annually ownership and investment interests held by physicians and their immediate family members. Applicable manufacturers are required to submit annual reports to CMS. Failure to submit required information may result in civil monetary penalties, which can be increased for "knowing failures", for all payments, transfers of value or ownership or investment interests that are not timely, accurately, and completely reported in an annual submission, and may result in liability under other federal laws or regulations. Effective January 1, 2022, these reporting obligations will extend to include transfers of value made during the previous year to certain non-physician providers such as physician assistants and nurse practitioners.

Numerous states have enacted laws prohibiting business corporations, such as us, from practicing medicine and other professions and employing or engaging physicians and other professionals to practice medicine, generally referred to as the prohibition against the corporate practice of medicine. These laws are designed to prevent interference in the medical decision-making process by anyone who is not a licensed professional. Violation of these corporate practices of medicine laws may result in civil or criminal fines, as well as sanctions imposed against the business corporation and/or the professional through licensure proceedings and programs and criminal penalties. In addition, various states have enacted false claim laws analogous to the federal False Claims Act, although many of these laws apply where a claim is submitted to any third-party payor and not merely a governmental payor program.

Laws Governing Foreign Business Activities

We are subject to the Foreign Corrupt Practices Act of 1977, as amended, or FCPA, which prohibits companies and their intermediaries from making payments in violation of law to non-U.S. government officials for the purpose of obtaining or retaining business or securing any other improper advantage. Other U.S. companies in the medical

device and pharmaceutical field have faced criminal penalties under the FCPA for allowing their agents to deviate from appropriate practices in doing business with foreign government officials. We may also become subject to similar anti-bribery laws in other jurisdictions in which we decide to operate, including the United Kingdom's Bribery Act of 2010, which also prohibits commercial bribery and makes it a crime for companies to fail to prevent bribery. We may also become subject to a wide variety of other foreign laws, rules, regulations and standards, such as the European Union General Data Protection Regulation (EU) 2016/679, or the GDPR, and other foreign data privacy and security laws, rules, regulations and standards (including as described below). Violations of these laws could result in severe penalties, including criminal and civil penalties, disgorgement, and other remedial measures. Any violations of these laws, or allegations of such violations, could involve significant costs and expenses, including legal fees, and could result in a material adverse effect on our business operations and revenue.

U.S. Centers for Medicare and Medicaid Services

Medicare is a federal program administered by CMS through fiscal intermediaries, Medicare Administrative Contractors 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 and procedures by Medicare. In general, in order to be reimbursed by Medicare, a healthcare procedure 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 CMS coverage and reimbursement relative to the procedures of implanting or using our RNS System 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 vary from state to state and is subject to each state's budget restraints. Changes to the availability of coverage, method or level of reimbursement for our RNS System and supplemental procedures 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 the implantation of our RNS System and supplemental procedures.

United States Health Reform

Changes in healthcare policy could increase our costs and subject us to additional regulatory requirements that may interrupt commercialization of our RNS System and future products. Changes in healthcare policy could increase our costs, decrease our revenue and impact sales of and reimbursement for our RNS System and future products. The Affordable Care Act substantially changes the way healthcare is financed by both governmental and private insurers, and significantly impacts our industry. The United States and some foreign jurisdictions are considering or have enacted a number of legislative and regulatory proposals to change the healthcare system in ways that could affect our ability to sell our RNS System and any future products profitably. Among policy makers and payors in the United States and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality or expanding access. Current and future legislative proposals to further reform healthcare or reduce healthcare costs may limit coverage of or lower reimbursement for the procedures associated with the use of our RNS System and any future products. The cost

containment measures that payors and providers are instituting and the effect of any healthcare reform initiative implemented in the future could impact our revenue from the sale of our RNS System and any future products.

The implementation of the Affordable Care Act in the United States, for example, has changed healthcare financing and delivery by both governmental and private insurers substantially, and affected medical device manufacturers significantly. The Affordable Care Act imposed, among other things, a 2.3% federal excise tax, with limited exceptions, on any entity that manufactures or imports Class I, II and III medical devices offered for sale in the United States that began on January 1, 2013. Through a series of legislative amendments, the tax was suspended for 2016 through 2019. The Further Consolidated Appropriations Act, signed into law on December 20, 2019, has repealed the medical device excise tax and as a result of the repeal and the prior moratorium, sales of taxable medical devices after December 31, 2015, are not subject to the tax. The Affordable Care Act also provided incentives to programs that increase the federal government's comparative effectiveness research, and implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models. Additionally, the Affordable Care Act has expanded eligibility criteria for Medicaid programs and created a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research. We continue to evaluate the full impact that the Affordable Care Act will have on our business. The Biden Administration and the U.S. Congress may take further action regarding the Affordable Care Act, including, but not limited to, amendment and expansion. During its history, there have been judicial, executive and Congressional challenges to certain aspects of the Affordable Care Act, such as enactment of the Tax Cuts and Jobs Act, which, among other things, removed penalties for not complying with the individual mandate to carry health insurance, known as the individual mandate. On December 14, 2018, a U.S. District Court Judge in the Northern District of Texas ruled that the individual mandate is a critical and inseparable feature of the Affordable Care Act, and therefore, because it was repealed as part of the Tax Cuts and Jobs Act, the remaining provisions of the Affordable Care Act are invalid as well. On December 18, 2019, the U.S. Court of Appeals for the 5th Circuit upheld the District Court ruling that the individual mandate was unconstitutional and remanded the case back to the District Court to determine whether the remaining provisions of the Affordable Care Act. The United States Supreme Court is currently reviewing this case, although it is unclear when a decision will be made. It is unclear whether such litigation and other efforts to repeal and replace the Affordable Care Act will be successful.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, the Budget Control Act of 2011, among other things, included reductions to CMS payments to providers of 2% per fiscal year, which went into effect on April 1, 2013 and, due to subsequent legislative amendments to the statute, will remain in effect through 2030 unless additional Congressional action is taken. However, the 2% Medicare sequester has been suspended by the CARES Act (described below) from May 1, 2020 through December 31, 2020. Additionally, the American Taxpayer Relief Act of 2012, among other things, reduced CMS payments to several providers, including hospitals, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

On March 27, 2020, the Coronavirus Aid, Relief and Economic Security Act, or CARES Act, was enacted in response to COVID-19 pandemic. The CARES Act made various tax law changes, including among other things (i) increased the limitation under IRC Section 163(j) for 2019 and 2020 to permit additional expensing of interest (ii) enacted technical corrections so that qualified improvement property can be immediately expensed under IRC Section 168(k) and net operating losses arising in tax years beginning in 2017 and ending in 2018 can be carried back two years and carried forward twenty years without a taxable income limitation as opposed to carried forward indefinitely, and (iii) made modifications to the federal net operating loss rules including permitting federal net operating losses incurred in 2018, 2019, and 2020 to be carried back to the five preceding taxable years. The CARES Act may impact the results reported for the year ended December 31, 2020; we are continuing to evaluate the CARES Act's various tax law changes and the impact they may have on our results of operations and income tax provision.

We believe that there will continue to be proposals by legislators at both the federal and state levels, regulators and third-party payors to reduce costs while expanding individual healthcare benefits. We are not sure whether additional legislative changes will be enacted, or whether the current regulations, guidance or interpretations will be

changed, particularly in light of the recent presidential election or what the impact of such changes on our business, if any, may be. Further, it is possible that additional governmental action is taken in response to the COVID-19 pandemic. Certain of these changes could impose additional limitations on the rates we will be able to charge for our RNS System and future products or the amounts of reimbursement available for our RNS System and future products from governmental agencies or third-party payors. Current and future healthcare reform legislation and policies could have a material adverse effect on our business and financial condition.

HIPAA and Other Privacy Laws

The Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, established uniform standards governing the conduct of certain electronic healthcare transactions and requires certain entities, called covered entities, to comply with standards that include the privacy and security of protected health information, or PHI. HIPAA also requires business associates and their subcontractors, such as independent contractors or agents of covered entities that have access to PHI in connection with providing a service to or on behalf of a covered entity, of covered entities to enter into business associate agreements with the covered entity and to safeguard the covered entity's PHI against improper use and disclosure. In addition, companies, such as many medical device companies, that would not otherwise be subject to HIPAA may become contractually obligated to follow certain HIPAA requirements through agreements with Covered Entities and Business Associates, and some of our customers may require us to comply with certain of these provisions.

The HIPAA privacy regulations cover the use and disclosure of protected health information by covered entities as well as business associates and associated companies, which are defined to include subcontractors that create, receive, maintain, or transmit protected health information on behalf of a business associate. They also set forth certain rights that an individual has with respect to his or her protected health information maintained by a covered entity, including the right to access or amend certain records containing protected health information, or to request restrictions on the use or disclosure of protected health information. The security regulations establish requirements for safeguarding the confidentiality, integrity, and availability of protected health information that is electronically transmitted or electronically stored. HITECH, among other things, established certain health information security breach notification requirements. A covered entity must notify any individual whose protected health information is breached according to the specifications set forth in the breach notification rule. The HIPAA privacy and security regulations establish a uniform federal "floor" and do not supersede state laws that are more stringent or provide individuals with greater rights with respect to the privacy or security of, and access to, their records containing protected health information or insofar as such state laws apply to personal information that is broader in scope than protected health information as defined under HIPAA.

For HIPAA covered entities and business associates, HIPAA requires the notification of patients, and other compliance actions, in the event of a breach of unsecured protected health information, or PHI. If notification to patients of a breach is required, such notification must be provided without unreasonable delay and in no event later than 60 calendar days after discovery of the breach. In addition, under HIPAA, if the PHI of 500 or more individuals is improperly used or disclosed, such improper use or disclosure would have to be reported to the U.S. Department of Health and Human Services, or HHS, which would post the violation on its website, and to the media. Failure to comply with the HIPAA privacy and security standards can result in civil monetary penalties, and, in certain circumstances, criminal penalties and/or imprisonment.

HIPAA authorizes state attorneys general to file suit on behalf of their residents for violations. Courts are able to award damages, costs and attorneys' fees related to violations of HIPAA in such cases. While HIPAA does not create a private right of action allowing individuals to file suit in civil court for violations of HIPAA, its standards have been used as the basis for duty of care cases in state civil suits such as those for negligence or recklessness in the misuse or breach of PHI. In addition, HIPAA mandates that the Secretary of HHS conduct periodic compliance audits of HIPAA covered entities and their business associates for compliance with the HIPAA privacy and security standards. It also tasks HHS with establishing a methodology whereby harmed individuals who were the victims of breaches of unsecured PHI may receive a percentage of the civil monetary penalty paid by the violator.

Further, various states, such as California and Massachusetts, have implemented similar privacy laws and regulations that impose restrictive requirements regulating the use and disclosure of health information and other personally identifiable information. These laws and regulations are not necessarily preempted by HIPAA, particularly if a state affords greater protection to individuals than HIPAA.

As a company that maintains a substantial amount of patient-level data and interacts frequently with both Covered Entities and Business Associates, we may have certain obligations regarding the use and disclosure of any PHI that may be provided to us. If we or our operations are found to be in violation of HIPAA, HITECH or their implementing regulations, and similar state laws, we may be subject to significant penalties, including civil, criminal and administrative penalties, fines, imprisonment and exclusion from participation in federal or state healthcare programs, and the curtailment or restructuring of our operations.

We are also subject to numerous other federal, state and foreign laws, rules, regulations and standards, including consumer protection laws and regulations that govern the collection, dissemination, use, access to, confidentiality and security of patient health and other personal information. For example, the California state legislature passed the California Consumer Privacy Act, or the CCPA, in 2018 which regulates the processing of personal information of California residents and increases the privacy and security obligations of covered companies handling such personal information, including requiring covered companies to provide new disclosures to California residents, and affords such residents new abilities to opt-out of certain sales of personal information. The CCPA went into effect on January 1, 2020, and while aspects its interpretation remain to be determined in practice, we are committed to complying with its obligations. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches that result in the loss of personal information that may increase the likelihood of, and risks associated with, data breach litigation. The CCPA was amended in September 2018 and November 2019, and it is possible that further amendments will be enacted. We cannot yet fully predict the impact of the CCPA on our business or operations, but developments regarding the CCPA and all privacy and data protection laws may require us to modify our data policies and practices and to incur substantial costs and expenses in an effort to maintain compliance on an ongoing basis. Moreover, a new privacy law, the California Privacy Rights Act, or the CPRA, – a consumer privacy ballot initiative that amends and expands the CCPA -- was recently passed. The CPRA affords California residents significantly more control over their personal information, imposes heightened compliance obligations on covered companies, and establishes a new enforcement agency dedicated to consumer privacy. The CPRA's substantive provisions become effective January 1, 2023, and new regulations are expected to be introduced by July 1, 2022. While aspects of the CPRA and its interpretation remain to be determined in practice, they create further uncertainty and may result in additional costs and expenses in an effort to comply.

In addition, Congress and various other states are considering new laws and regulations regarding the privacy and security of health and other personal information to which we may become subject. Further, all 50 states have passed laws regulating the actions that a business must take if it experiences a data breach, such as prompt disclosure to affected customers. In addition to data breach notification laws, some states have enacted statutes and rules requiring businesses to reasonably protect certain types of personal information they hold or to otherwise comply with certain specified data security requirements for personal information. We are also subject to the supervisory and enforcement authority of the Federal Trade Commission with regard to the collection, use, sharing, and disclosure of certain data collected from or about individuals. We intend to continue to protect all personal information in our control and to comply with all applicable laws regarding the protection of such information.

In addition, as noted above, we are planning for regulatory clearances in non-U.S. jurisdictions, including the EU, Canada, and Japan, and therefore would be subject to non-U.S. data privacy and security laws, rules, regulations and standards as our operations expand. For example, the collection, use, disclosure, transfer, or other processing of personal data regarding individuals in the EU, including personal health data, is subject to the GDPR, which took effect across all member states of the European Economic Area, or EEA, in May 2018. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, including requirements relating to processing health and other sensitive data, obtaining consent of the individuals to whom the personal data relates, providing information to individuals regarding data processing activities, implementing safeguards to protect the security and confidentiality of personal data, providing notification of data breaches, and taking certain measures when engaging third-party processors. The GDPR increases obligations with respect to clinical trials conducted in the EEA by expanding the definition of personal data to include coded data and requiring changes to informed

consent practices and more detailed notices for clinical trial subjects and investigators. In addition, the GDPR also imposes strict rules on the transfer of personal data to countries outside the EU, including the U.S. and, as a result, increases the scrutiny that such rules should apply to transfers of personal data from clinical trial sites located in the EEA to the U.S. The GDPR also permits data protection authorities to require destruction of improperly gathered or used personal information and/or impose substantial fines for violations of the GDPR, which can be up to four percent of global revenues or 20 million Euros, whichever is greater, and confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. In addition, the GDPR provides that EU member states may make their own further laws and regulations limiting the processing of personal data, including genetic, biometric, or health data.

For more information regarding the risks related to data privacy and security, please see “Risk Factors—Our collection, use, storage, disclosure, transfer and other processing of sensitive, and personal information, could give rise to significant costs, liabilities and other risks, including as a result of investigations, inquiries, litigation, fines, legislative and regulatory action and negative press about our privacy and data protection practices, which may harm our business, financial conditions, results of operations and prospects.”

Human Capital Resources

NeuroPace was founded with a mission to transform the lives of people living with brain neurologic disorders. We are focused on developing high quality products that address critical patient needs and maintaining a work environment where employees are respected and encouraged to excel. As of December 31, 2020, we had 152 employees, two thirds of whom are in our Mountain View, CA headquarters with the rest located throughout the United States. We believe that the success of our business will depend, in part, on our ability to attract and retain qualified personnel. None of our employees are represented by a labor union or are a party to a collective bargaining agreement and we believe that we have strong employee relations.

Culture and Values

We strive to create a respectful work environment characterized by open communication and trust. As employees of NeuroPace, we each uphold the following core values that drive our culture and define the way we do business:

- Innovation: We develop world class technology
- Integrity: We do what’s right
- Leadership: We are becoming the standard of care
- Patient Focus: We transform lives
- Science: We enable fundamental discoveries

It is our philosophy to foster open communication. Employee input on ways to improve our business strategy and tactics, work environment and organization is valued and encouraged. We believe that our ability to provide employees with a dynamic and challenging environment where they are empowered to succeed and accountable to lead further drives a culture embedded in our values.

Business Ethics

We are committed to conducting our business activities with employees, consultants, patients, vendors, customers, communities, and stockholders with integrity and fairness and in accordance with the highest ethical standards. We believe that our conduct has a direct impact on our reputation, our brand, and our stakeholders. We are focused on ensuring that our legal, compliance, and risk mitigation protocols further enhance our ability to comport ourselves with the highest levels of ethical standards.

Talent Attraction, Retention and Engagement

We have a strong employee value proposition that leverages our unique patient-driven culture, collaborative working environment, shared sense of purpose, desire to do the right thing and ground-breaking work, to attract talent to our Company. By focusing on individual performance, as well as teamwork and collaboration, we believe that we foster an environment that helps employees excel as individuals and as team members. Eighty-eight employees, or 58% of our workforce, have been at NeuroPace for at least five years. To further engage and incentivize our workforce, we offer a wide range of programs and avenues for support, motivation, and professional development. For example, we utilize both instructor-led training and online learning to deliver proprietary, targeted training courses designed to position our commercial organization at the cutting edge of neuromodulation. For our talent pipeline development, we work closely with individual business functions to provide training and hands-on support for managers and leaders, who use our Performance/Potential Matrix to assess talent, identify development opportunities, and discuss succession planning.

Communication is also key to our employee development and retention. We hold regular all-hands meetings designed to keep our employees informed and engaged. We also employ employee engagement surveys through which we incorporate critical employee feedback into our culture, operations, and strategic plans.

Compensation Philosophy

We strive to provide comprehensive compensation, including cash, equity, benefits and services that attract, motivate and retain exceptional employees. Compensation is driven by local market conditions, internal equity, and employee performance.

Health and Wellness

We offer a comprehensive package including: 401(k) plan, medical, dental, and vision insurance, life and long-term disability insurance, health care and child care spending accounts, Section 529 college savings plan, three weeks paid vacation for most employees at start, eleven paid holidays, and PTO for sick time and family emergencies. Other benefits include: health club membership, patent awards program, anniversary awards, casual dress – everyday, company picnics, parties and barbecues, fully stocked kitchen, and more.

Facilities

We currently lease approximately 53,000 square feet for our corporate headquarters and manufacturing facility located in Mountain View, California under a lease agreement which terminates in 2024 and we have an option to extend for another five years. We believe that this facility is sufficient to meet our current and anticipated needs in the near term and that additional space can be obtained on commercially reasonable terms as needed.

Legal Proceedings

From time to time, we may become party to legal proceedings in the ordinary course of business. Such legal proceedings may negatively impact our business and financial position, result in brand or reputational harm, and divert the attention of our management from core operations of our business.

We are currently not a party to any material legal proceedings.

MANAGEMENT

Executive Officers and Directors

The following table sets forth certain information for our executive officers, key employees and directors as of December 31, 2020:

Name	Age	Position(s)
Executive officers		
Michael Favet	51	Director, President and Chief Executive Officer
Martha Morrell, M.D.	64	Chief Medical Officer
Rebecca Kuhn	60	Chief Financial Officer and Vice President, Finance and Administration
Irina Ridley	35	General Counsel and Corporate Secretary
Key employees		
Isabella Abati	61	Vice President, Regulatory Affairs
Chi Nguyen	44	Vice President, Marketing
Mark Saxton	55	Vice President, Sales
Cairn Seale	50	Vice President, Clinical and Research
Dylan St. John	43	Vice President, Manufacturing & Commercial Operations
Irene Thomas	52	Vice President, Human Resources
Non-employee directors		
Frank Fischer ⁽³⁾	79	Director
Greg Garfield ⁽²⁾⁽³⁾	57	Director
Rishi Gupta ⁽⁴⁾	43	Director
Nael Karim Kassar ⁽⁴⁾	41	Director
Rakhi Kumar ⁽¹⁾⁽⁵⁾	41	Director
Joseph S. Lacob ⁽³⁾	64	Director
Evan Norton ⁽¹⁾⁽²⁾	46	Director
Renee Ryan ⁽¹⁾⁽²⁾	52	Director

(1) Member of the audit committee

(2) Member of the compensation committee

(3) Member of the nominating and corporate governance committee

(4) Mr. Gupta and Mr. Kassar resigned from our board of directors, effective immediately prior to the effectiveness of the registration statement of which this prospectus is a part.

(5) Ms. Kumar has been appointed as a member of our board of directors, effective immediately prior to the effectiveness of the registration statement of which this prospectus is a part.

Executive officers

Michael Favet has served as our President and Chief Executive Officer since July 2019 and has served as a member of our board of directors since September 2016. From June 2016 to July 2019, Mr. Favet served as Managing Director at KCK-US, Inc., an investment fund, where he was responsible for strategic investments and advising portfolio companies, and also acted as our Chief Commercial Officer from October 2018 to July 2019. From 2015 to January 2017, Mr. Favet served as Chief Operating Officer at Advanced Cardiac Therapeutics, Inc., a medical device company, where he was responsible for overseeing operations. From 2012 to 2015, Mr. Favet served as Chief Operating Officer at Sonitus Medical Inc., a medical device company. Mr. Favet earned a B.S. in Mechanical Engineering from the University of Illinois and an M.B.A. from the University of Minnesota. We believe that Mr. Favet's business expertise and his daily insight into corporate matters as our President and Chief Executive Officer qualify him to serve on our board of directors.

Martha Morrell, M.D. has served as our Chief Medical Officer since 2004. Dr. Morrell has also served as a Clinical Professor of Neurology at Stanford University since 2004. Dr. Morrell previously served as the Caitlin Tynan Doyle Professor of Clinical Neurology at Columbia University and Director of the Columbia Comprehensive Epilepsy Center at New York Presbyterian Hospital from 1998 to 2004. Prior to that, Dr. Morrell served on the faculty of the Stanford University School of Medicine and as the Director of the Stanford Comprehensive Epilepsy Center from 1990 to 1998. Dr. Morrell earned a B.A. from Barnard College and an M.D. from the Stanford University School of Medicine.

Rebecca Kuhn has served as our Chief Financial Officer and Vice President, Finance and Administration since 2000. From 1992 to 2000, Ms. Kuhn served in roles of increasing responsibility, most recently as Treasurer and Director of Finance at Heartport, Inc., a medical device company. Ms. Kuhn earned a B.S. in Business Administration from The Ohio State University and an M.B.A. from the Graduate School of Business at Stanford University.

Irina Ridley has served as our General Counsel and Corporate Secretary since November 2020. Ms. Ridley previously served as Chief Counsel at Myriad Genetics, Inc., a precision medicine company, from August 2018 to November 2020, where she was responsible for corporate legal matters. From August 2016 to August 2018, she served as Associate General Counsel and Privacy Officer at Counsyl Inc., a genetic testing company, where prior to its acquisition by Myriad Genetics, Inc., she was responsible for corporate legal matters. From 2014 to August 2016, she served as Compliance and Privacy Officer at Omada Health, a digital health company, where she was the first attorney and was responsible for building out Omada Health's compliance and privacy programs. Prior to that, from 2011 to 2014, Ms. Ridley worked in management consulting, serving in roles of increasing responsibility at Deloitte Tax, LLP, and PricewaterhouseCoopers. Ms. Ridley has served on the Alumni Board of Directors of Albany Law School since July 2016 and previously served on the Board of Directors of Women in Security and Privacy from May 2016 to October 2017. Ms. Ridley earned a B.S. and an M.B.A. from the Rensselaer Polytechnic Institute and a J.D. from Albany Law School of Union University.

Key employees

Isabella Abati has served as our Vice President, Regulatory Affairs since March 2005. Ms. Abati previously served as Vice President of Clinical Sciences for the Neurovascular Division of Boston Scientific, Inc., a medical device company, from 2001 to 2005, and as Director of Regulatory and Clinical Affairs from 1999 to 2000. From 1984 to 1999, Ms. Abati held positions of increasing responsibility in the pharmaceutical, biotech, and medical device industries in both regulatory and clinical affairs. Ms. Abati earned a B.A., a B.S., and an M.S. in Microbiology from California State University, Long Beach.

Chi Nguyen has served as our Vice President, Marketing since July 2018. Ms. Nguyen previously served as our Senior Director of Marketing from 2015 to June 2018. From 2005 to 2015, Ms. Nguyen served in marketing positions of increasing responsibility in the medical device industry with Guidant, Johnson & Johnson, and Spinal Modulation. Prior to that, Ms. Nguyen served as a management consultant at Bain & Company. Ms. Nguyen earned a B.A. from Yale University and an M.B.A. from the Graduate School of Business at Stanford University.

Mark Saxton has served as our Vice President, Sales since June 2019. Mr. Saxton previously served as Vice President of Sales and Marketing at Ceterix Orthopaedics, Inc., a medical device company, from July 2017 to June 2019, where he was responsible for sales and marketing of Ceterix's novel meniscus repair device. Prior to that, Mr. Saxton served as Vice President of Product Solutions at Integer Holding Corp., a medical device manufacturing and outsourcing company, from 2015 to June 2017, where he was responsible for sales and marketing for finished devices in the Cardio and Vascular division. Mr. Saxton earned a B.B.A. from Western Michigan University.

Cairn Seale has served as our Vice President, Clinical Research since January 2021. Ms. Seale previously served in various roles of increasing responsibility, from Trial Manager to Senior Director of Clinical and Research since joining NeuroPace in 2002. Prior to that, Ms. Seale served as Manager of Clinical Research at the Stanford Epilepsy Center, from 1994 to 2000 and at Columbia University Department of Neurology from 1998 to 2000. Ms. Seale earned a B.A. from Stanford University and an M.S. from Stanford University School of Medicine.

Dylan St. John has served as our Vice President, Manufacturing and Commercial Operations since January 2021, prior to which, Mr. St. John served in various roles, including Business Process Excellence and Regulatory Labeling since joining NeuroPace in 2013. Mr. St. John previously served as New Product Introduction (NPI) Program Manager at Calibra Medical, a Johnson & Johnson company, a medical device company, from 2012 to 2013. Prior to that, Mr. St. John served as Sr. Manager of Global Packaging and Labeling at LifeScan, Inc., a Johnson & Johnson company, a medical device company, from 2007 to 2012. Mr. St. John earned a B.S. from San Jose State University.

Irene Thomas has served as our Vice President, Human Resources since May 2019, prior to which Ms. Thomas served in various Human Resources roles since joining NeuroPace in 2000. Ms. Thomas also serves on the Board of Directors for the San Carlos Charter Learning Center. Ms. Thomas previously served as a human resources consultant at various pharmaceutical and medical device companies from 1999 to 2000. Prior to that, Ms. Thomas served as Manager of Human Resources at Heartport Inc., a medical device company, in 1999 and as Manager of Human Resources at Aviron, a pharmaceutical company from 1997 to 1999. Ms. Thomas earned a B.A. from Sonoma State University.

Non-employee directors

Frank Fischer has served as the Chairman of our board of directors since November 1997. From 2000 to July 2019, Mr. Fischer served as our President and Chief Executive Officer and as a part-time employee of ours from July 2019 to January 2020. Prior to that, Mr. Fischer was President and Chief Executive Officer of Heartport, Inc., a medical device company, from 1998 to 1999, and served on Heartport's board of directors from 1992 to 1999. Previously, Mr. Fischer was President and Chief Executive Officer of Ventritex, Inc., a company that pioneered implantable cardiac defibrillators, from 1987 until the sale of the company to St. Jude Medical, Inc. in 1997. Mr. Fischer has served as a member of the board of directors of Nevro, Inc., a medical device company, since 2012. Mr. Fischer received a B.S. in Mechanical Engineering and a M.S. in Management from Rensselaer Polytechnic Institute. We believe Mr. Fischer is qualified to serve on our board of directors because of his extensive experience with medical device companies and the historical knowledge and continuity he brings to our board of directors.

Greg Garfield has served as a member of our board of directors since September 2016. Since March 2016, Mr. Garfield has served as Senior Managing Director at KCK-US, Inc., an investment fund. Prior to KCK-US, Inc., Mr. Garfield served as Chief Operating Officer and General Counsel at Acclarent, Inc., a medical device company from 2006 to 2011. Mr. Garfield has served on the board of directors of Mainstay Medical plc, a medical device company, since June 2016, and serves on the boards of directors of several other private companies. Mr. Garfield previously served as a director of Semler Scientific, Inc., a healthcare technology solutions company, from 2013 until October 2016. Mr. Garfield earned a B.S. from California Polytechnic State University and a J.D. from McGeorge School of Law, University of the Pacific. We believe Mr. Garfield is qualified to serve on our board of directors because of his extensive experience working with medical technology companies.

Rishi Gupta has served as a member of our board of directors since May 2019. Since 2002, Mr. Gupta has served in various roles at OrbiMed Advisors LLC, an investment firm, where he is currently a Partner. Mr. Gupta has served on the board of directors of Verona Pharma plc since July 2016, and previously served on the board of directors of Dimension Therapeutics, Inc. from 2015 to May 2017. From 1999 to 2000, Mr. Gupta served as a Healthcare Investment Banker at Raymond James & Associates. From 2000 to 2001, Mr. Gupta served as Manager of Corporate Development at Veritas Medicine. In 2003, Mr. Gupta served as a Summer Associate at Wachtell, Lipton, Rosen & Katz. Mr. Gupta received an A.B. in biochemical sciences from Harvard College and a J.D. from Yale Law School. We believe Mr. Gupta is qualified to serve on our board of directors because of his experience in the medical technology field and his experience serving on the boards of public and private companies.

Nael Karim Kassar has served as a member of our board of directors since September 2016. Since April 2018, Mr. Kassar has served as Chief Executive Officer at KCK Ltd., a private family office investment fund. Mr. Kassar co-founded KCK Ltd. in 2011 and has served as an executive director since that time. Mr. Kassar earned a B.A. in Pure Mathematics from Imperial College London and an M.A. in Advanced Studies in Mathematics from Cambridge University. We believe Mr. Kassar is qualified to serve on our board of directors because of his extensive experience working with medical technology companies.

Rakhi Kumar was appointed as a member of our board of directors in April 2021, effective immediately prior to the effectiveness of the registration statement of which this prospectus is a part. Since June 2018, Ms. Kumar has served as Chief Accounting Officer at Roivant Sciences, a biopharmaceutical company, where she leads Roivant's accounting and financial operations and related internal controls functions. Ms. Kumar joined Roivant in September 2015, previously serving as Vice President, Finance and External Reporting, from December 2016 to June 2018, and as Senior Director, from September 2015 to December 2016. Prior to joining Roivant, Ms. Kumar was with The Medicines Company, from June 2013 to September 2015, where she was responsible for external reporting and corporate and technical accounting. Earlier in her career, Ms. Kumar was in the assurance services at Ernst and Young. Ms. Kumar earned an M.S in Accounting and Taxation from the University of Hartford. She is a certified public accountant. We believe Ms. Kumar is qualified to serve on our board of directors based on her extensive leadership and life sciences industry experience.

Joseph S. Lacob has served as a member of our board of directors since 1997. Since 2010, Mr. Lacob has served as Co-Executive Chairman and Chief Executive Officer of the Golden State Warriors. Mr. Lacob has served as a director of Align Technology, Inc. a global medical device company, since 1997. Mr. Lacob earned a B.S. from the University of California, Irvine, an M.P.H. from the University of California, Los Angeles, and an M.B.A from the Stanford Graduate School of Business. We believe Mr. Lacob is qualified to serve on our board of directors because of the historical knowledge and continuity he brings to our board of directors.

Evan Norton has served as a member of our board of directors since August 2020. Since November 2019, Mr. Norton has served as General Partner at Accelmed Partners, a private equity firm focused on medical devices and medical technology. Since September 2016, Mr. Norton has also served as an Adjunct Lecturer at Northwestern University – Kellogg School Management. From 2014 to November 2019, Mr. Norton served as Divisional Vice President, Venture Investments at Abbott Ventures, an investment fund and wholly owned subsidiary of Abbot Labs, and also served as Managing Director, Venture Investments, from 2013 to 2014. Mr. Norton earned a B.B.A. from Texas A&M University and an M.B.A. from Northwestern University, Kellogg School of Management. We believe Mr. Norton is qualified to serve on our board of directors because of his extensive experience working with medical technology companies.

Renee Ryan has served as a member of our board of directors since 2013. Since August 2019, Ms. Ryan has served as Chief Executive Officer at Cala Health, Inc., a medical technology company. From 2011 to August 2019, Ms. Ryan served as Vice President, Investments, at Johnson & Johnson Development Corp., the venture investing arm of Johnson & Johnson. From 2008 to 2011, Ms. Ryan served as Managing Director at Robert W. Baird & Co., a private equity firm and financial services company. We believe Ms. Ryan is qualified to serve on our board of directors because of her leadership experience and extensive experience in the medical device industry.

Family relationships

There are no family relationships among any of the directors or executive officers.

Composition of our board of directors

The members of our board of directors were elected pursuant to the provisions of an amended and restated voting agreement. Under the terms of this voting agreement, the stockholders who are party to the voting agreement have agreed to vote their respective shares so as to elect: (1) four directors designated by KCK Ltd., currently Mr. Kassar, Mr. Garfield, Mr. Fischer and one vacancy, (2) two directors designated by OrbiMed Private Investments VI, LP, currently Mr. Gupta and one vacancy, (3) one director designated by Accelmed Partners II, LP, currently Mr. Norton, (4) two directors designated by the holders of a majority of the outstanding common stock (excluding shares issued or issuable upon conversion of our convertible preferred stock), currently Mr. Lacob and Ms. Ryan, and (5) our chief executive officer, currently Mr. Favet. The voting agreement will terminate upon the closing of this offering, following which none of our stockholders will have any special rights regarding the election or designation of members of our board of directors. Until the closing of this offering, KCK Ltd. and OrbiMed Private Investments VI, LP will retain the ability to designate a director to fill the vacancies created by the resignations of Mr. Kassar and Mr. Gupta, respectively, under the terms of the voting agreement.

The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling and direction to our management. Our board of directors meets on a regular basis and additionally as required. Effective immediately prior to the effectiveness of the registration statement of which this prospectus is a part, our board of directors will consist of seven directors. Our amended and restated certificate of incorporation, which will become effective upon the closing of this offering, will provide that the authorized number of directors may be changed only by resolution approved by a majority of our board of directors. In accordance with our amended and restated certificate of incorporation to be effective in connection with this offering, immediately after this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- the Class I directors will be Frank Fischer and Michael Favet, and their terms will expire at the annual meeting of stockholders to be held in 2022;
- the Class II directors will be Greg Garfield, Joseph S. Lacob and Evan Norton, and their terms will expire at the annual meeting of stockholders to be held in 2023; and
- the Class III directors will be Rakhi Kumar and Renee Ryan, and their terms will expire at the annual meeting of stockholders to be held in 2024.

Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Director independence

Under the listing requirements and rules of the Nasdaq Global Market, independent directors must compose a majority of our board of directors as a listed company within one year of the closing of this offering.

Our board of directors has undertaken a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that Mr. Garfield, Ms. Kumar, Mr. Lacob, Mr. Norton and Ms. Ryan do not have any relationships that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is “independent” as that term is defined under the applicable rules and regulations of the SEC and the listing requirements and rules of the Nasdaq Global Market. In making this determination, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director.

Committees of our board of directors

Our board of directors has established an audit committee, a compensation committee, and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors. Our board of directors may establish other committees as it deems necessary or appropriate from time to time.

Audit committee

Our audit committee consists of Mr. Kumar, Mr. Norton and Ms. Ryan. Our board of directors has determined that each member of the audit committee satisfies the independence requirements under the Nasdaq Global Market listing standards and Rule 10A-3(b)(1) of the Exchange Act. The chairperson of our audit committee is Ms. Kumar. Our board of directors has determined that Ms. Kumar is an “audit committee financial expert” within the

meaning of SEC regulations. Each member of our audit committee can read and understand fundamental financial statements in accordance with applicable requirements. In arriving at these determinations, our board of directors has examined each audit committee member's scope of experience and the nature of their employment.

The primary purpose of the audit committee is to discharge the responsibilities of our board of directors with respect to our corporate accounting and financial reporting processes, systems of internal control and financial statement audits, and to oversee our independent registered public accounting firm. Specific responsibilities of our audit committee include:

- helping our board of directors oversee our corporate accounting and financial reporting processes;
- managing the selection, engagement, qualifications, independence and performance of a qualified firm to serve as the independent registered public accounting firm to audit our financial statements;
- discussing the scope and results of the audit with the independent registered public accounting firm, and reviewing, with management and the independent accountants, our interim and year-end operating results;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviewing related person transactions;
- obtaining and reviewing a report by the independent registered public accounting firm at least annually that describes their internal quality control procedures, any material issues with such procedures, and any steps taken to deal with such issues when required by applicable law;
- approving or, as permitted, pre-approving, audit and permissible non-audit services to be performed by the independent registered public accounting firm; and
- reviewing our risk assessment and risk management processes, including compliance and cybersecurity matters.

Our audit committee will operate under a written charter, to be effective upon the closing of this offering, that satisfies the applicable listing standards of the Nasdaq Global Market.

Compensation committee

Our compensation committee consists of Mr. Garfield, Mr. Norton and Ms. Ryan. The chairperson of our compensation committee is Mr. Garfield. Our board of directors has determined that each member of the compensation committee is independent under the listing standards of the Nasdaq Global Market, and a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act.

The primary purpose of our compensation committee is to discharge the responsibilities of our board of directors in overseeing our compensation policies, plans and programs and to review and determine the compensation to be paid to our executive officers, directors and other senior management, as appropriate. Specific responsibilities of our compensation committee include:

- reviewing and recommending to our board of directors the compensation of our chief executive officer and other executive officers;
- reviewing and recommending to our board of directors the compensation of our directors;
 - administering our equity incentive plans and other benefit programs;
 - reviewing, adopting, amending and terminating incentive compensation and equity plans, severance agreements, profit sharing plans, bonus plans, change-of-control protections and any other compensatory arrangements for our executive officers and other senior management; and

- reviewing and establishing general policies relating to compensation and benefits of our employees, including our overall compensation philosophy.

Our compensation committee will operate under a written charter, to be effective upon the closing of this offering, that satisfies the applicable listing standards of the Nasdaq Global Market.

Nominating and corporate governance committee

Our nominating and corporate governance committee consists of Mr. Fischer, Mr. Garfield and Mr. Lacob. The chairperson of our nominating and corporate governance committee is Mr. Fischer. Our board of directors has determined that Mr. Garfield and Mr. Lacob are independent under the listing standards of the Nasdaq Global Market. Our board of directors has further determined that Mr. Fischer's membership on the nominating and corporate governance committee is required by the best interests of our company and our stockholders because of his historical knowledge of the company and its needs and experience in the industry.

Specific responsibilities of our nominating and corporate governance committee include:

- identifying and evaluating candidates, including the nomination of incumbent directors for reelection and nominees recommended by stockholders, to serve on our board of directors;
- considering and making recommendations to our board of directors regarding the composition and chairmanship of the committees of our board of directors;
- developing and making recommendations to our board of directors regarding certain director training considerations as well as corporate governance guidelines and matters; and
- overseeing periodic evaluations of the board of directors' performance, including committees of the board of directors.

Our nominating and corporate governance committee will operate under a written charter, to be effective upon the closing of this offering, that satisfies the applicable listing standards of the Nasdaq Global Market.

Code of business conduct and ethics

We have adopted a code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. Upon the closing of this offering, our code of business conduct and ethics will be available under the Corporate Governance section of our website at www.neuropace.com. In addition, we intend to post on our website all disclosures that are required by law or the listing standards of the Nasdaq Global Market concerning any amendments to, or waivers from, any provision of the code. The reference to our website address does not constitute incorporation by reference of the information contained at or available through our website, and you should not consider it to be a part of this prospectus.

Compensation committee interlocks and insider participation

None of the members of the compensation committee is currently or has been at any time one of our officers or employees. None of our executive officers currently serves, or has served during the last year, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

Director compensation

The following table sets forth information regarding the compensation earned for service on our board of directors during the year ended December 31, 2020 by our non-employee directors. Our non-employee directors are entitled to reimbursement of direct expenses incurred in connection with attending meetings of the board of directors or committees thereof. In 2020, we reimbursed direct expenses for certain of our non-employee directors. Mr. Fischer, our former President and Chief Executive Officer, received \$100,000 in compensation for his part-time

employment services from July 2019 through January 2020, \$498,000 in employment severance benefits during 2019 and 2020, representing 12 months of his base salary, and did not receive additional compensation for his services as a director in 2020. Michael Favet, our President and Chief Executive Officer, did not receive additional compensation for his services as a director in 2020. Mr. Favet’s compensation as an executive officer is set forth in “—Summary compensation table.”

The following table presents all of the compensation awarded to, earned by or paid to the members of our Board of Directors during the year ended December 31, 2020:

Name	Fees earned or paid in cash (\$)	Option awards (\$) ⁽¹⁾⁽²⁾	All other compensation (\$)	Total (\$)
Frank Fischer	—	—	408,880 ⁽⁴⁾	408,880
Greg Garfield	—	—	—	—
Rishi Gupta	—	—	—	—
Nael Karim Kassar	—	—	—	—
Joseph S. Lacob	—	—	—	—
Evan Norton	—	—	—	—
Renee Ryan	—	535 ⁽³⁾	—	535
Vince Burgess ⁽⁵⁾	16,500	—	—	16,500

(1) The amounts disclosed represent the aggregate grant date fair value of the stock options granted under our 2020 Plan, computed in accordance with Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718. The assumptions used in calculating the grant date fair value of the stock options are set forth in Note 9 to our audited financial statements included elsewhere in this prospectus. As required by SEC rules, the amount shown excludes the impact of estimated forfeitures related to service-based vesting conditions. The amount reported in this column reflects the accounting cost for these stock options and does not correspond to the actual economic value that may be received by the non-employee director upon the exercise of the stock options or any sale of the underlying shares of common stock.

(2) As of December 31, 2020, Mr. Lacob and Ms. Ryan held options to purchase 192 and 41,170 shares of common stock, respectively.

(3) In October 2020, Ms. Ryan was granted an option to purchase 41,170 shares of common stock, all of which were exercisable as of such date. The shares underlying this option vest in equal monthly installments over 48 months, subject to Ms. Ryan’s continued service with us.

(4) Consists of (a) \$26,923 in fees for part-time employment, (b) \$315,963 in severance in connection with his ceasing to serve as our President and Chief Executive Officer and (c) \$65,993 in accrued vacation.

(5) Mr. Burgess resigned from our Board of Directors effective as of September 23, 2020.

Non-employee director compensation policy

In connection with this offering, our board of directors has approved a policy for setting annual non-employee director compensation, which will take effect following the completion of this offering.

Commencing with the first calendar quarter following the closing of this offering, each non-employee director will receive an annual cash retainer of \$40,000 for serving on our board of directors, and the chairperson of our board of directors will receive an additional annual cash retainer of \$35,000. The chairperson of the audit committee of our board of directors will be entitled to an annual service retainer of \$20,000, and each other member of the audit committee will be entitled to an annual service retainer of \$10,000. The chairperson of the compensation committee of our board of directors will be entitled to an annual service retainer of \$15,000, and each other member of the compensation committee will be entitled to an annual service retainer of \$7,500. The chairperson of the nominating and corporate governance committee of our board of directors will be entitled to an annual service retainer of \$10,000, and each other member of the nominating and corporate governance committee will be entitled to an annual service retainer of \$5,000. All annual cash compensation amounts will be payable in equal quarterly installments in arrears, on the last day of each fiscal quarter for which the service occurred, pro-rated for any partial months of service.

Each new non-employee director who joins our board of directors following the closing of this offering will receive an option to purchase shares of common stock under the 2021 Equity Incentive Plan, or the 2021 Plan, having a grant date fair value for financial accounting purposes (computed in accordance with Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718) of \$185,000 and an exercise

price per share equal to the per share fair market value of the underlying common stock on the date of grant. One- thirty-sixth of the shares subject to the option will vest on a monthly basis over the three year period following the date of grant, subject to the non-employee director's continuous service with us on each applicable vesting date.

On the date of each annual meeting of our stockholders following the closing of this offering, each continuing non-employee director will receive an option to purchase shares of common stock under the 2021 Plan having a grant date fair value for financial accounting purposes of \$115,000 and a per share exercise price equal to the per share fair market value of the underlying common stock on the date of grant. The shares subject to this option will vest upon the earlier of the one year anniversary of the grant date or immediately prior to the next annual meeting.

On the effective date of this post-effective amendment to the registration statement, the compensation committee will approve an option to purchase shares of common stock to each non-employee director, or each a Director IPO Option. Each Director IPO Option will be granted under our 2021 Plan and will be effective immediately following the execution of the underwriting agreement related to this offering. Each Director IPO Option will represent a number of shares of common stock having a grant date fair value for financial accounting purposes of \$185,000 and a per share exercise price equal to the per share price to the public set forth on the cover to this prospectus. One thirty-sixth of the shares subject to each Director IPO Option will vest on a monthly basis over the three year period following the date of grant, subject to the non-employee director's continuous service with us on each applicable vesting date.

All then outstanding non-employee director options will vest upon a change in control of us, subject to the non-employee director's continuous service with us through the date of our change in control.

EXECUTIVE COMPENSATION

Our named executive officers, consisting of our principal executive officer and the next two most highly compensated executive officers, for the year ended December 31, 2020 were:

- Michael Favet, our President and Chief Executive Officer;
- Rebecca Kuhn, our Chief Financial Officer and Vice President, Finance and Administration; and
- Martha Morrell, our Chief Medical Officer.

Summary compensation table

The following table presents all of the compensation awarded to, earned by or paid to our Chief Executive Officer and our two next most highly compensated executive officers during the year ended December 31, 2020:

Name	Salary	Bonus ⁽¹⁾	Option awards ⁽²⁾	Non-equity incentive plan compensation	Total
Michael Favet <i>President and Chief Executive Officer</i>	\$ 411,923	\$ 25,000	\$ 13,363	\$221,306 ⁽³⁾	\$ 671,592
Rebecca Kuhn <i>Chief Financial Officer and Vice President, Finance and Administration</i>	350,300	20,000	2,707	70,620 ⁽⁴⁾	443,627
Martha Morrell <i>Chief Medical Officer</i>	397,975	—	3,802	82,205 ⁽⁵⁾	483,982

(1) Reflects a discretionary bonus paid to the named executive officer in November 2020.

(2) The amounts disclosed represent the aggregate grant date fair value of the stock options granted under our 2020 Plan, computed in accordance with ASC Topic 718. The assumptions used in calculating the grant date fair value of the stock options are set forth in Note 9 to our audited financial statements included elsewhere in this prospectus. This amount does not reflect the actual economic value that may be realized by the named executive officers.

(3) Consists of (a) \$24,231 in cash performance-based bonuses paid by us to Mr. Favet, based upon the expected achievement levels of revenue targets for third quarter 2020, as determined by our board of directors and (b) \$197,075 in cash performance-based bonuses paid by us to Mr. Favet, based upon the achievement of certain performance criteria for 2020. See “—Employment Arrangements.”

(4) Consists of (a) \$19,617 in cash performance-based bonuses paid by us to Ms. Kuhn, based upon the expected achievement levels of revenue targets for third quarter 2020, as determined by our board of directors and (b) \$51,003. See “—Employment Arrangements.”

(5) Consists of (a) \$22,835 in cash performance-based bonuses paid by us to Dr. Morrell, based upon the expected achievement levels of revenue targets for third quarter 2020, as determined by our board of directors and (b) \$59,370. See “—Employment Arrangements.”

Narrative to the summary compensation table

Annual base salary

The base salary of our named executive officers is generally determined and approved by our board of directors in connection with the commencement of employment of the named executive officer and may be adjusted from time to time thereafter as the board of directors determines appropriate. The 2020 annual base salaries for our named executive officers are set forth in the table below.

Name	2020 Base Salary ⁽¹⁾
Michael Favet <i>President and Chief Executive Officer</i>	\$ 450,000
Rebecca Kuhn <i>Chief Financial Officer and Vice President, Finance and Administration</i>	365,000
Martha Morrell <i>Chief Medical Officer</i>	424,000

- (1) Mr. Favet, Ms. Kuhn, and Dr. Morrell's 2020 base salaries were temporarily reduced for a portion of 2020 pursuant to our mutual agreement with our named executive officers in light of the impact of COVID-19 on our business. During the period from April 2020 through October 2020, Mr. Favet, Ms. Kuhn, and Dr. Morrell's base salary was temporarily reduced to 80% of their respective base salary.

Bonus and non-equity incentive compensation opportunity

In addition to base salaries, each of our named executive officers is eligible to receive annual cash bonuses which are designed to provide appropriate incentives to our named executive officers to achieve defined annual corporate goals and to reward our named executive officers for their individual achievements. The annual bonus awarded to each named executive officer may be based in part on the extent to which we achieve corporate goals. At the end of the year, our board of directors reviews our performance against each corporate goal and considers the extent to which we achieved each of our corporate goals.

There is no minimum bonus percentage or amount established for our named executive officer and, as a result, the bonus amounts vary from year to year based on corporate and, when applicable, individual performance.

For 2020, Mr. Favet was eligible for a target bonus equal to 50% of his base salary. This annual cash bonuses for 2020 performance was determined based on the following factors: revenue and operating costs targets, successful completion of an equity financing, successful refinancing of our corporate debt, performance related to initiation of an initial public offering and achievement of other non-revenue based corporate objectives. For 2020, our board of directors determined that Mr. Favet was entitled to approximately 87.6% of his target bonus.

For 2020, Ms. Kuhn and Dr. Morrell were both eligible for a target bonus equal to 20% of their respective base salaries. Annual cash bonuses for 2020 performance were determined based on the following factors: revenue targets and achievement of non-revenue based corporate objectives. For 2020, our board of directors determined that each of Ms. Kuhn and Dr. Morell was entitled to 70% of her target bonus.

In addition, our board of directors approved a \$25,000 cash bonus to Mr. Favet and a \$20,000 cash bonus to Ms. Kuhn in light of their efforts during the COVID-19 pandemic and their prior reduction in base salaries.

Our equity-based incentive awards are designed to align our named executive officers' interests with those of our stockholders and to retain and incentivize our named executive officers over the long-term. Our board of directors is responsible for approving equity grants. Vesting of equity awards is generally tied to continuous service with us and serves as an additional retention measure. Our named executive officers generally are awarded an initial new hire grant upon commencement of employment. Additional grants may occur periodically in order to specifically incentivize our named executive officers with respect to achieving certain corporate goals or to reward our named executive officers for exceptional performance. Prior to this offering, we have granted all equity awards pursuant to the 2009 Plan and the 2020 Plan, the terms of which are described below under "—Equity benefit plans." All options are granted with a per share exercise price equal to no less than the fair market value of a share of our common stock on the date of the grant of such award. Generally our option awards vest over a four-year period subject to the holder's continuous service to us, as further described under "—Outstanding equity awards as of December 31, 2020" below.

In October 2020, our board of directors granted options to purchase 976,923 shares to Mr. Favet, 196,153 shares to Ms. Kuhn, and 278,846 shares to Dr. Morrell, each with an exercise price per share of \$0.026 per share. The options vest in equal monthly installments over four years subject to continued services to us. In addition, the options provide for vesting acceleration upon certain qualifying terminations of employment, as described below under "Employment Agreements".

In addition, in November 2020, we amended certain outstanding options held by our non-employee directors and our employees, including options held by our named executive officers, which were "underwater," meaning the exercise price per share of these options was greater than the current fair market value of our common stock. The amendment reduced the exercise price per share of such options to \$0.026, the fair market value of our common stock as determined by our board of directors on the date of the repricing. We believe that repricing these underwater options was important for the growth and development of our business in order to provide appropriate

retention and motivation incentives for our employees holding these options. Our named executive officers repriced options are reflected below under “—Outstanding equity awards at fiscal year end.”

Outstanding equity awards as of December 31, 2020

The following table presents all of the compensation awarded to, earned by or paid to our Chief Executive Officer and our two next most highly compensated executive officers during the year ended December 31, 2020:

Name	Grant date	Vesting commencement date	Option awards ⁽¹⁾			
			Number of securities underlying unexercised options exercisable	Number of securities underlying unexercised options unexercisable ⁽²⁾	Option exercise price	Option expiration date
Michael Favet	10/30/20 ⁽⁴⁾	8/19/2020	976,923	—	\$ 0.026	10/29/2030
	7/23/19 ⁽⁵⁾	8/1/2019	50,968	—	0.026 ⁽³⁾	7/22/2029
Rebecca Kuhn	10/30/20 ⁽⁴⁾	8/19/2020	196,153	—	0.026	10/29/2030
	12/2/17 ⁽⁵⁾	5/4/2012	692	—	0.026 ⁽³⁾	11/12/2022
	12/2/17 ⁽⁴⁾	8/23/2013	254	—	0.026 ⁽³⁾	2/10/2024
	12/2/17 ⁽⁴⁾	11/11/2014	482	—	0.026 ⁽³⁾	2/9/2025
	12/2/17 ⁽⁵⁾	1/1/2017	10,634	—	0.026 ⁽³⁾	12/1/2027
Martha Morrell	10/30/20 ⁽⁷⁾	8/19/2020	278,846	—	0.026	10/29/2030
	12/2/17 ⁽⁵⁾	7/1/2011	192	—	0.026 ⁽³⁾	7/5/2021
	12/2/17 ⁽⁵⁾	7/1/2012	192	—	0.026 ⁽³⁾	11/13/2022
	12/2/17 ⁽⁶⁾	2/22/2013	384	—	0.026 ⁽³⁾	3/6/2023
	12/2/17 ⁽⁵⁾	7/1/2013	192	—	0.026 ⁽³⁾	4/21/2024
	12/2/17 ⁽⁵⁾	7/1/2014	192	—	0.026 ⁽³⁾	10/12/2024
	12/2/17 ⁽⁵⁾	7/1/2015	192	—	0.026 ⁽³⁾	7/23/2025
	12/2/17 ⁽⁴⁾	1/1/2017	12,234	—	0.026 ⁽³⁾	12/1/2027

- (1) All of the options were granted under the 2009 Stock Plan or the 2020 Plan. The unvested shares underlying these options are subject to accelerated vesting as described in “—Employment arrangements” below.
- (2) All of the option awards may be early exercised prior to vesting.
- (3) Reflects an option that was amended on November 30, 2020 to reduce the exercise price to \$0.026 per share, as described above under “—Equity-based incentive awards.”
- (4) The shares underlying this option vest in equal monthly installments over 48 months, subject to the named executive officer’s continued service with us.
- (5) 1/4th of the shares underlying this option vested on the first anniversary of the vesting commencement date, and the remaining shares will vest in equal monthly installments thereafter over 36 months, subject to the named executive officer’s continued service with us.
- (6) The option was fully vested as of the grant date.
- (7) If, at the time of this offering, less than 232,371 of the shares subject to this option remain unvested, an amount of shares subject to this option shall vest and become immediately exercisable immediately prior to the offering such that a total of 232,371 shares subject to this option will be vested and immediately exercisable, subject to the named executive officer’s continued service with us. Follow such acceleration, the remaining unvested shares subject to this option will continue to vest in equal monthly installments over 48 months.

Emerging growth company status

We are an emerging growth company, as defined in the JOBS Act. As an emerging growth company, we will be exempt from certain requirements related to executive compensation, including, but not limited to, the requirements to hold a nonbinding advisory vote on executive compensation and to provide information relating to the ratio of total compensation of our Chief Executive Officer to the median of the annual total compensation of all of our employees, each as required by the Investor Protection and Securities Reform Act of 2010, which is part of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Pension and retirement benefits

Our named executive officers did not participate in, or otherwise receive any benefits under, any pension or defined benefit retirement plan sponsored by us during the year ended December 31, 2020.

Nonqualified deferred compensation

Our named executive officers did not participate in, or earn any benefits under, any nonqualified deferred compensation plan sponsored by us during the year ended December 31, 2020. Our board of directors may elect to provide our officers and other employees with nonqualified deferred compensation benefits in the future if it determines that doing so is in our best interests.

Employment arrangements

The employment agreements and offer letters with our named executive officers generally provide for at-will employment and set forth the executive officer's initial base salary, eligibility for employee benefits and confirmation of the terms of previously issued equity grants. The key terms of these agreements are described below. In addition, each of our named executive officers has executed our standard confidential information and invention assignment agreement.

Michael Favet

In March 2021, we entered into an amended and restated employment agreement with Michael Favet, our President and Chief Executive Officer and a member of our board of directors. The employment agreement continued to provide him with an annual base salary of \$450,000 and a maximum bonus opportunity of 50% of his base salary, based on Company and individual performance objectives determined by our board of directors. The employment agreement provides that Mr. Favet's base salary will be automatically increased to \$517,000 per year following the completion of this offering, with such increase implemented retroactively effective to March 1, 2021 if this offering is completed prior to October 1, 2021. The employment agreement also provides that Mr. Favet's maximum annual bonus opportunity will be automatically increased to 85% of his then current base salary following completion of this offering. The employment agreement provides that Mr. Favet will be eligible for severance benefits under our Officer Severance Benefit Plan, the terms of which are described below. Mr. Favet is also eligible to participate in benefit plans and arrangements made available to all full-time employees.

Additionally, the employment agreement provides that Mr. Favet will be eligible to receive a stock option under our 2021 Plan contingent upon completion of this Offering. The option will be granted to Mr. Favet contingent upon his continued employment with us through the applicable grant date, which will be not later than the first meeting of our Compensation Committee that is held following the completion of this offering. The option will be for such number of shares and with other terms and conditions as approved by our Compensation Committee in its discretion.

During a portion of 2020, Mr. Favet's annual base salary was reduced to 80% of his base salary pursuant to our mutual agreement with Mr. Favet for a portion of 2020 in light of the impact of COVID-19 on our business. In July 2019, pursuant to his employment agreement, we granted Mr. Favet options to purchase 50,968 shares of common stock with an exercise price of \$36.40 per share, which was repriced in November 2020 to provide for an exercise price of \$0.026 per share. In October 2020, we granted Mr. Favet options to purchase 976,923 shares of common stock with an exercise price of \$0.026 per share.

Rebecca Kuhn

In March 2021, we entered into an amended and restated employment agreement with Ms. Kuhn, our Chief Financial Officer. The employment agreement continued to provide her with an annual base salary of \$365,000 and a maximum bonus opportunity of 20% of her base salary, based on Company and individual performance objectives determined by our board of directors. The employment agreement provides that Ms. Kuhn's base salary will be automatically increased to \$376,000 per year following the completion of this offering, with such increase implemented retroactively effective to March 1, 2021 if this offering is completed prior to October 1, 2021. The employment agreement also provides that Ms. Kuhn's maximum annual bonus opportunity will be automatically increased to 45% of her then current base salary following completion of this offering. The employment agreement provides that Ms. Kuhn will be eligible for severance benefits under our Officer Severance Benefit Plan, the terms of which are described below. Ms. Kuhn is also eligible to participate in benefit plans and arrangements made available to all full-time employees.

Additionally, the employment agreement provides that Ms. Kuhn will be eligible to receive a stock option under our 2021 Plan contingent upon completion of this Offering. The option will be granted to Ms. Kuhn contingent upon her continued employment with us through the applicable grant date, which will be not later than the first meeting of our Compensation Committee that is held following the completion of this offering. The option will be for such number of shares and with other terms and conditions as approved by our Compensation Committee in its discretion.

During a portion of 2020 Ms. Kuhn's annual base salary was reduced to 80% of her base salary pursuant to our mutual agreement with Ms. Kuhn for a portion of 2020 in light of the impact of COVID-19 on our business. In October 2020, we granted Ms. Kuhn options to purchase 196,153 shares of common stock with an exercise price of \$0.026 per share.

Martha Morrell

In March 2021, we entered into an amended and restated employment agreement with Dr. Morrell, our Chief Medical Officer. The employment agreement continued to provide her with an annual base salary of \$424,000 and a maximum bonus opportunity of 20% of her base salary, based on Company and individual performance objectives determined by our board of directors. The employment agreement provides that Dr. Morrell's base salary will be automatically increased to \$438,000 per year following the completion of this offering, with such increase implemented retroactively effective to March 1, 2021 if this offering is completed prior to October 1, 2021. The employment agreement also provides that Dr. Morrell's maximum annual bonus opportunity will be automatically increased to 45% of her then current base salary following completion of this offering. The employment agreement provides that Dr. Morrell will be eligible for severance benefits under our Officer Severance Benefit Plan, the terms of which are described below. Dr. Morrell is also eligible to participate in benefit plans and arrangements made available to all full-time employees.

Additionally, the employment agreement provides that Dr. Morrell will be eligible to receive a stock option under our 2021 Plan contingent upon completion of this Offering. The option will be granted to Dr. Morrell contingent upon her continued employment with us through the applicable grant date, which will be not later than the first meeting of our Compensation Committee that is held following the completion of this offering. The option will be for such number of shares and with other terms and conditions as approved by our Compensation Committee in its discretion.

During a portion of 2020 Dr. Morrell's annual base salary was reduced to 80% of her base salary pursuant to our mutual agreement with Dr. Morrell for a portion of 2020 in light of the impact of COVID-19 on our business. In October 2020, we granted Dr. Morrell options to purchase 278,846 shares of common stock with an exercise price of \$0.026 per share.

Officer Severance Benefit Plan

In March 2021, we adopted the NeuroPace, Inc. Officer Severance Benefit Plan, or the Severance Plan, that applies to all officers designated as eligible participants thereunder, including Mr. Favet, Ms. Kuhn and Dr. Morrell.

In the event of an involuntary termination, that occurs during the time period commencing three months prior to and ending 24 months following a change in control (referred to as a change of control termination), we will provide our named executive officers with the following severance benefits, contingent upon receiving a release of claims in favor of our company, compliance with any existing confidentiality agreement, return of all company property, and agreement to resign from all officer and director positions (unless otherwise specified by the company): (i) a lump sum cash payment equal to 12 months (or 18 months for Mr. Favet) of the officer's base salary, (ii) a lump sum cash payment equal to (a) 100% (or 150% for Mr. Favet) of the officer's annual target bonus multiplied by (b) a fraction, the numerator of which is the number of days between (and including) the start of the fiscal year in which the change in control termination occurs and the date of change in control termination and the denominator of which is 365, and (iii) up to 12 months (or 18 months for Mr. Favet) of Consolidated Omnibus Budget Reconciliation Act, or COBRA, coverage. In addition, in the event of a change in control while the officer is still an employee of the company, 100% of the officer's unvested equity awards will vest in full and become immediately exercisable.

The Severance Plan also provides that, in the event of a covered termination that is not a change in control termination, as such terms are used in the Severance Plan, we will provide the following severance benefits to our named executive officers, contingent upon receiving a release of claims in favor of our company, compliance with any existing confidentiality agreement, return of all company property, and agreement to resign from all officer and director positions (unless otherwise specified by the company): (i) a severance payment equal to 12 months the officer's then-current base salary paid in installments and (ii) up to 12 months of COBRA coverage.

For the purposes of the Severance Plan, the following definitions apply:

- “cause” generally means with respect to a particular officer the occurrence of any of the following events: (i) such officer's commission or conviction of any felony or any crime involving fraud, dishonesty or moral turpitude; (ii) such officer's commission or attempted commission of, or participation in, a fraud or act of dishonesty against the company; (iii) such officer's material breach of fiduciary contractual, statutory or common law duties to the company; (iv) such officer's intentional damage to any property of the company; (v) such officer's misconduct or other violation of company policy that causes harm; or (vi) conduct by such officer which in the good faith and reasonable determination of the company demonstrates gross unfitness to serve.
- “change in control” generally means (i) a consummated merger or similar transaction in which the company's stockholders cease to own more than 50% of the surviving entity's voting power in substantially the same proportions as the company's securities pre-transaction; (ii) any transaction or series of related transactions where more than 50% of the company's voting power is transferred; or (iii) a consummated sale or other disposition of all or substantially all of the company's assets other than to certain related entities.
- “change in control period” means the period beginning on the date that is three months prior to and ending on the date that is 24 months following the consummation of a change in control.
- “change in control termination” generally means an involuntary termination that occurs within the change in control period. For such purposes, if the events giving rise to an officer's right to resign for good reason arise within the change in control period, and the officer's resignation occurs not later than thirty days after the expiration of the cure period, such termination shall be a change in control termination.
- “good reason” for an officer's resignation generally means the occurrence of any of the following events, conditions, or actions taken by the company without cause and without such officer's consent: (i) a material reduction of such officer's annual base salary, which is a reduction of at least 10% (unless pursuant to a salary reduction program applicable generally to the company's similarly situated employees); (ii) a material reduction in such officer's duties, responsibilities or authority; (iii) a relocation of such officer's principal place of employment with the company to a place that increases such officer's one-way commute by more than fifty miles (excluding regular travel in the ordinary course of business); provided, however, that in each case above, in order for the officer's resignation to be deemed to have been for good reason, the officer must first give the company written notice of the action or omission giving rise to “good reason” within thirty days after the first occurrence thereof; the company must fail to reasonably cure such action or omission within thirty days after receipt of such notice, or the cure period, and the officer's resignation must be effective not later than thirty days after the expiration of the cure period.
- “involuntary termination” generally means a termination of an officer's employment by us without cause (excluding by reason of the officer's death or disability) or such officer's voluntary resignation for good reason.

Health and welfare benefits

All of our named executive officers are eligible to participate in our employee benefit plans, including our medical, dental, vision, life, disability and accidental death and dismemberment insurance plans, in each case on the same basis as all of our other employees. We pay the premiums for the life, disability and accidental death and dismemberment insurance for all of our employees, including our named executive officers.

401(k) Plan

We currently maintain a 401(k) retirement savings plan for our employees, including our named executive officers, who satisfy certain eligibility requirements. The 401(k) plan is intended to qualify as a tax-qualified plan under the Code. Our named executive officers are eligible to participate in the 401(k) plan on the same basis as our other employees. The Code allows eligible employees to defer a portion of their compensation, within prescribed limits, on a pre-tax basis through contributions to the 401(k) plan.

Employee Cash Incentive Plan

Our board of directors adopted our Employee Cash Incentive Plan, or Cash Incentive Plan, in March 2021. Our Cash Incentive Plan amends, restates and supersedes in its entirety the 2021 Corporate Bonus Plan for Non-Field Employees and provides for the grant of cash-based incentive awards to selected employees, including each of our named executive officers, which are also performance-based cash awards under our 2021 Plan. The following summary describes the material terms of our Cash Incentive Plan. This summary is not a complete description of all provisions of our Cash Incentive Plan and is qualified in its entirety by reference to our Cash Incentive Plan, which is filed as an exhibit to the registration statement of which this prospectus is a part.

Administration. Our Cash Incentive Plan will be administered by our Chief Executive Officer for employees at the director-level or below and by our compensation committee for our officers and other above director-level employees. As used in this summary, the term “Administrator” refers to our compensation committee or Chief Executive Officer, as applicable. The Administrator has the discretionary authority to, among other things, determine award recipients, grant awards, establish all terms and conditions of awards, interpret the Cash Incentive Plan and awards, approve target and actual awards, adopt sub-plans, prescribe rules for administration, interpretation and application of the Cash Incentive Plan, and otherwise do all things necessary or desirable to carry out the purposes of our Cash Incentive Plan.

Eligibility and Participation. Our employees and those of our affiliates will be eligible to participate in our Cash Incentive Plan and will be selected from time to time by the Administrator to participate in our Cash Incentive Plan.

Awards; Performance Criteria. Awards under our Cash Incentive Plan will be made based on, and subject to, achieving, specified performance goals established by the Administrator in its discretion for the applicable performance period. The target award will be set in a participant’s written employment offer letter or other written agreement with the company or otherwise communicated in writing by the Administrator. For each award granted under our Cash Incentive Plan, the Administrator will establish the performance goals applicable to the award for the specified performance period, the amount or amounts payable if the performance goals are achieved and such other terms and conditions as the Administrator deems appropriate. The performance goals may be on the basis of any factors the Administrator determines relevant, and may be on an individual, divisional, business unit or company-wide basis as permitted by the 2021 Plan. The performance goals may differ from participant to participant and from award to award.

Payments Under an Award. A participant will be entitled to payment under an award only if all conditions to payment have been satisfied in accordance with our Cash Incentive Plan and the terms of the award. Following the end of a performance period, the Administrator will determine whether and to what extent the applicable performance goals have been satisfied and will determine the amount payable under each award. The Administrator has the discretionary authority to increase or decrease the amount actually paid under any award. The actual cash award amounts will be fully paid in cash (or its equivalent) on such dates as are determined by the Administrator. Participants must be employed by the company in good standing on the bonus payment date in order to be eligible to receive payment.

Amendment and Termination. The Administrator may (i) amend our Cash Incentive Plan and the terms of any outstanding award granted under the Cash Incentive Plan or (ii) terminate the Cash Incentive Plan, provided that any amendment will not alter or impair any participant’s rights or obligations under any actual cash award amount previously earned without their consent.

Employee benefit and stock plans

2021 Equity Incentive Plan

Our board of directors adopted, and our stockholders approved, our 2021 Equity Incentive Plan, or our 2021 Plan, in April 2021. Our 2021 Plan will become effective upon the execution of the underwriting agreement for this offering. The 2021 Plan came into existence upon its adoption by our board of directors, but no grants will be made under the 2021 Plan prior to its effectiveness. Once the 2021 Plan is effective, no further grants will be made under the 2020 Plan.

Awards. Our 2021 Plan provides for the grant of incentive stock options, or ISOs, within the meaning of Section 422 of the Code, to employees, including employees of any parent or subsidiary, and for the grant of nonstatutory stock options, or NSOs, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance awards and other forms of awards to employees, directors and consultants, including employees and consultants of our affiliates.

Authorized shares. Initially, the aggregate number of shares of our common stock that may be issued pursuant to stock awards under our 2021 Plan is the sum of (i) 2,900,000 shares of our common stock plus (ii) the number of shares subject to stock options or other stock awards that would have otherwise returned to our 2020 Stock Plan (such as upon the expiration or termination of a stock award prior to vesting). In addition, the number of shares of our common stock reserved for issuance under our 2021 Plan will automatically increase on January 1 of each calendar year, starting on January 1, 2022 (provided that the offering occurs prior to such date) through January 1, 2031, in an amount equal to (i) 5% of the total number of shares of our common stock outstanding on December 31 of the calendar year before the date of each automatic increase, or (ii) a lesser number of shares determined by our board of directors prior to the applicable January 1. The maximum number of shares of our common stock that may be issued on the exercise of ISOs under our 2021 Plan is 8,700,000 shares.

Shares subject to stock awards granted under our 2021 Plan that expire or terminate without being exercised in full or that are paid out in cash rather than in shares do not reduce the number of shares available for issuance under our 2021 Plan. Shares withheld under a stock award to satisfy the exercise, strike or purchase price of a stock award or to satisfy a tax withholding obligation do not reduce the number of shares available for issuance under our 2021 Plan. If any shares of our common stock issued pursuant to a stock award are forfeited back to or repurchased or reacquired by us (1) because of a failure to meet a contingency or condition required for the vesting of such shares, (2) to satisfy the exercise, strike or purchase price of an award or (3) to satisfy a tax withholding obligation in connection with an award, the shares that are forfeited or repurchased or reacquired will revert to and again become available for issuance under the 2021 Plan. Any shares previously issued which are reacquired in satisfaction of tax withholding obligations or as consideration for the exercise or purchase price of a stock award will again become available for issuance under the 2021 Plan.

Plan administration. Our board of directors, or a duly authorized committee of our board of directors, will administer our 2021 Plan and is referred to as the “plan administrator” herein. Our board of directors may also delegate to one or more of our officers the authority to (1) designate employees (other than officers) to receive specified stock awards and (2) determine the number of shares subject to such stock awards. Under our 2021 Plan, our board of directors has the authority to determine award recipients, grant dates, the numbers and types of stock awards to be granted, the applicable fair market value, and the provisions of each stock award, including the period of exercisability and the vesting schedule applicable to a stock award.

Stock options. ISOs and NSOs are granted under stock option agreements adopted by the plan administrator. The plan administrator determines the exercise price for stock options, within the terms and conditions of the 2021 Plan, provided that the exercise price of a stock option generally cannot be less than 100% of the fair market value of our common stock on the date of grant. Options granted under the 2021 Plan vest at the rate specified in the stock option agreement as determined by the plan administrator.

The plan administrator determines the term of stock options granted under the 2021 Plan, up to a maximum of 10 years. Unless the terms of an optionholder’s stock option agreement, or other written agreement between us and the recipient approved by the plan administrator, provide otherwise, if an optionholder’s service relationship with us

or any of our affiliates ceases for any reason other than disability, death, or cause, the optionholder may generally exercise any vested options for a period of three months following the cessation of service. This period may be extended in the event that exercise of the option is prohibited by applicable securities laws. If an optionholder's service relationship with us or any of our affiliates ceases due to death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 18 months following the date of death. If an optionholder's service relationship with us or any of our affiliates ceases due to disability, the optionholder may generally exercise any vested options for a period of 12 months following the cessation of service. In the event of a termination for cause, options generally terminate upon the termination date. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the plan administrator and may include (1) cash, check, bank draft or money order, (2) a broker-assisted cashless exercise, (3) the tender of shares of our common stock previously owned by the optionholder, (4) a net exercise of the option if it is an NSO, or (5) other legal consideration approved by the plan administrator.

Unless the plan administrator provides otherwise, options or stock appreciation rights generally are not transferable except by will or the laws of descent and distribution. Subject to approval of the plan administrator or a duly authorized officer, an option may be transferred pursuant to a domestic relations order, official marital settlement agreement, or other divorce or separation instrument.

Tax limitations on ISOs. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an award holder during any calendar year under all of our stock plans may not exceed \$100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our parent or subsidiary corporations unless (1) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant, and (2) the term of the ISO does not exceed five years from the date of grant.

Restricted stock unit awards. Restricted stock unit awards are granted under restricted stock unit award agreements adopted by the plan administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, or other written agreement between us and the recipient approved by the plan administrator, restricted stock unit awards that have not vested will be forfeited once the participant's continuous service ends for any reason.

Restricted stock awards. Restricted stock awards are granted under restricted stock award agreements adopted by the plan administrator. A restricted stock award may be awarded in consideration for cash, check, bank draft or money order, past or future services to us, or any other form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. The plan administrator determines the terms and conditions of restricted stock awards, including vesting and forfeiture terms. If a participant's service relationship with us ends for any reason, we may receive any or all of the shares of common stock held by the participant that have not vested as of the date the participant terminates service with us through a forfeiture condition or a repurchase right.

Stock appreciation rights. Stock appreciation rights are granted under stock appreciation right agreements adopted by the plan administrator. The plan administrator determines the purchase price or strike price for a stock appreciation right, which generally cannot be less than 100% of the fair market value of our common stock on the date of grant. A stock appreciation right granted under the 2021 Plan vests at the rate specified in the stock appreciation right agreement as determined by the plan administrator. Stock appreciation rights may be settled in cash or shares of common stock or in any other form of payment as determined by the Board and specified in the stock appreciation right agreement.

The plan administrator determines the term of stock appreciation rights granted under the 2021 Plan, up to a maximum of 10 years. If a participant's service relationship with us or any of our affiliates ceases for any reason other than cause, disability, or death, the participant may generally exercise any vested stock appreciation right for a period of three months following the cessation of service. This period may be further extended in the event that exercise of the stock appreciation right following such a termination of service is prohibited by applicable securities laws. If a participant's service relationship with us, or any of our affiliates, ceases due to disability or death, or a participant dies within a certain period following cessation of service, the participant or a beneficiary may generally exercise any vested stock appreciation right for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, stock appreciation rights generally terminate immediately upon the occurrence of the event giving rise to the termination of the individual for cause. In no event may a stock appreciation right be exercised beyond the expiration of its term.

Performance awards. The 2021 Plan permits the grant of performance awards that may be settled in stock, cash or other property. Performance awards may be structured so that the stock or cash will be issued or paid only following the achievement of certain pre-established performance goals during a designated performance period. Performance awards that are settled in cash or other property are not required to be valued in whole or in part by reference to, or otherwise based on, the common stock.

The performance goals may be based on any measure of performance selected by the board of directors. The performance goals may be based on company-wide performance or performance of one or more business units, divisions, affiliates, or business segments, and may be either absolute or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by the board of directors at the time the performance award is granted, the board will appropriately make adjustments in the method of calculating the attainment of performance goals as follows: (i) to exclude restructuring and/or other nonrecurring charges; (ii) to exclude exchange rate effects; (iii) to exclude the effects of changes to generally accepted accounting principles; (iv) to exclude the effects of any statutory adjustments to corporate tax rates; (v) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (vi) to exclude the dilutive effects of acquisitions or joint ventures; (vii) to assume that any portion of our business which is divested achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (viii) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (ix) to exclude the effects of stock based compensation and the award of bonuses under our bonus plans; (x) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; and (xi) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles.

Other stock awards. The plan administrator may grant other awards based in whole or in part by reference to our common stock. The plan administrator will set the number of shares under the stock award (or cash equivalent) and all other terms and conditions of such awards.

Non-employee director compensation limit. The aggregate value of all compensation granted or paid to any non-employee director with respect to any calendar year, including awards granted and cash fees paid by us to such non-employee director, will not exceed \$500,000 in total value; provided that such amount will increase to \$750,000 for the first year for newly appointed or elected non-employee directors.

Changes to capital structure. In the event there is a specified type of change in our capital structure, such as a stock split, reverse stock split, or recapitalization, appropriate adjustments will be made to (1) the class and maximum number of shares reserved for issuance under the 2021 Plan, (2) the class and maximum number of shares by which the share reserve may increase automatically each year, (3) the class and maximum number of shares that may be issued on the exercise of ISOs, and (4) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

Corporate transactions. The following applies to stock awards under the 2021 Plan in the event of a corporate transaction (as defined in the 2021 Plan), unless otherwise provided in a participant's stock award agreement or other written agreement with us or one of our affiliates or unless otherwise expressly provided by the plan administrator at the time of grant.

In the event of a corporate transaction, any stock awards outstanding under the 2021 Plan may be assumed, continued or substituted for by any surviving or acquiring corporation (or its parent company), and any reacquisition or repurchase rights held by us with respect to the stock award may be assigned to the successor (or its parent company). If the surviving or acquiring corporation (or its parent company) does not assume, continue or substitute for such stock awards, then (i) with respect to any such stock awards that are held by participants whose continuous service has not terminated prior to the effective time of the corporate transaction, or current participants, the vesting (and exercisability, if applicable) of such stock awards will be accelerated in full to a date prior to the effective time of the corporate transaction (contingent upon the effectiveness of the corporate transaction), and such stock awards will terminate if not exercised (if applicable) at or prior to the effective time of the corporate transaction, and any reacquisition or repurchase rights held by us with respect to such stock awards will lapse (contingent upon the effectiveness of the corporate transaction), and (ii) any such stock awards that are held by persons other than current participants will terminate if not exercised (if applicable) prior to the effective time of the corporate transaction, except that any reacquisition or repurchase rights held by us with respect to such stock awards will not terminate and may continue to be exercised notwithstanding the corporate transaction.

In the event a stock award will terminate if not exercised prior to the effective time of a corporate transaction, the plan administrator may provide, in its sole discretion, that the holder of such stock award may not exercise such stock award but instead will receive a payment equal in value to the excess (if any) of (i) the per share amount payable to holders of common stock in connection with the corporate transaction, over (ii) any per share exercise price payable by such holder, if applicable. In addition, any escrow, holdback, earn out or similar provisions in the definitive agreement for the corporate transaction may apply to such payment to the same extent and in the same manner as such provisions apply to the holders of common stock.

Change in control. Awards granted under the 2021 Plan may be subject to acceleration of vesting and exercisability upon or after a change in control (as defined in the 2021 Plan) as may be provided in the applicable stock award agreement or in any other written agreement between us or any affiliate and the participant, but in the absence of such provision, no such acceleration will automatically occur.

Plan amendment or termination. Our board of directors has the authority to amend, suspend, or terminate our 2021 Plan, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. Certain material amendments also require the approval of our stockholders. No ISOs may be granted after the tenth anniversary of the date our board of directors adopts our 2021 Plan. No stock awards may be granted under our 2021 Plan while it is suspended or after it is terminated.

2020 Stock Plan

Our board of directors adopted, and our stockholders approved, the 2020 Plan in August 2020. As of December 31, 2020, under the 2020 Plan, options to purchase 2,835,265 shares of common stock were outstanding, and 818,889 shares of common stock remained available for future issuance.

Upon the effective date of the 2021 Plan, no additional awards will be granted under the 2020 Plan, which will be terminated on such date. However, any outstanding awards granted under the 2020 Plan will remain outstanding, subject to the terms of the 2020 Plan and award agreements, until such outstanding options are exercised or until any awards terminate or expire by their terms.

Awards. The 2020 Plan provides for the grant of ISOs, NSOs, stock appreciation rights or SARs, restricted stock awards, restricted stock unit awards and other stock-based awards, or collectively, awards. Awards may be granted to directors, employees and consultants; however, ISOs may be granted only to individuals who are employees.

Administration. Our board of directors administers and interprets the provisions of the 2020 Plan. The board of directors may delegate its authority to a committee of the board, referred to as the “administrator.” Under our 2020 Plan, the administrator has the authority to, among other things, determine award recipients, grant awards, establish all terms and conditions of awards (including, but not limited to, vesting, exercise and forfeiture provisions), adopt, amend and repeal such administrative rules, guidelines and practices relating to the 2020 Plan and correct any defect or ambiguity, and supply any omission or reconcile any inconsistency in the 2020 Plan.

Stock options and SARs. Stock options are generally granted by our administrator pursuant to option grant notices and stock option agreements. The exercise price of stock options and SARs will not be less than the fair market value of our common shares on the date of grant, in accordance with the terms and conditions of the 2020 Plan. The administrator may attach other terms and conditions to a specific option grant, pursuant to the 2020 Plan. Our administrator determines the term of stock options and SARs granted under the 2020 Plan, up to a maximum of 10 years. If an optionholder’s service relationship with us or any of our affiliates ceases for any reason other than disability, death or cause, the optionholder may generally exercise any vested options for a period of up to three months following the cessation of service. This period may be extended in the event that exercise of the option is prohibited by applicable securities laws or our insider trading policy. If an optionholder’s service relationship with us or any of our affiliates ceases due to death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of up to 18 months following the date of death. If an optionholder’s service relationship with us or any of our affiliates ceases due to disability, the optionholder may generally exercise any vested options for a period of up to 12 months following the cessation of service. In the event of a termination for cause, options generally terminate upon the termination date. However, in no event may an option or SAR be exercised beyond the expiration of its term.

Restricted stock unit awards. The administrator determines the terms and conditions of restricted stock unit awards, including vesting and forfeiture terms. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Any dividend equivalents will be subject to the same terms and conditions of the underlying restricted stock unit award to which they relate.

Restricted stock awards. The administrator determines the terms and conditions of restricted stock awards, including vesting and forfeiture terms. Participants holding shares of restricted stock are entitled to all ordinary cash dividends paid with respect to such shares, unless otherwise provided by the administrator in the applicable award agreement. In addition, the receipt of any dividend, paid in shares or other property, may be subject to the same restrictions on transferability and forfeitability as the shares of restricted stock with respect to which the dividend was paid.

Other stock awards. The administrator may grant other awards based in whole or in part by reference to our common stock. The administrator will set the number of shares under the stock award and all other terms and conditions of such awards.

Adjustments. In the event there is a dividend, other property distribution, reorganization, merger, consolidation, combination, repurchase, recapitalization, liquidation, dissolution, or sale, transfer, exchange or other disposition of all or substantially all of our assets, or sale or exchange of common stock or other securities of the company, issuance of warrants or other rights to purchase common stock or other securities of the company, or other similar corporate transaction or event, collectively referred to as specified corporate transactions, appropriate adjustments will be made to (1) the class and maximum number of shares reserved for issuance under the 2020 Plan, (2) the class, maximum number of shares and price per share of stock subject to outstanding awards under the 2020 Plan and (3) the class and maximum number of shares that may be issued pursuant to the exercise of incentive stock options.

Our 2020 Plan provides that in the event of a specified corporate transaction unless otherwise provided in an award agreement or other written agreement between us and the award holder, the administrator may take one or more of the following actions with respect to such awards:

- arrange for the assumption, continuation, or substitution of a stock award by a surviving or acquiring corporation;
- arrange for the assignment of any reacquisition or repurchase rights held by us to the surviving or acquiring corporation;
- accelerate the vesting, in whole or in part, of the stock award and provide for its termination if not exercised (if applicable) at or before the effective time of the corporate transaction;
- suspend the exercise of stock awards, prior to the effective time of the corporate transaction, for such period as the administrator determine is necessary to facilitate the negotiation and consummation of the corporate transaction;
- if a stock award is eligible for “early exercise,” cancel or arrange for the cancellation of any such “early exercise” rights upon the corporate transaction, such that following the corporate transaction, such stock award may only be exercised to the extent vested;
- arrange for the lapse, in whole or in part, of any reacquisition or repurchase rights held by us;
- cancel or arrange for the cancellation of the stock award, to the extent not vested or not exercised before the effective time of the transaction, in exchange for such cash consideration (including no consideration) as our board of directors, in its sole discretion, may consider appropriate; and
- make a payment equal to the excess, if any, of (A) the value of the property the participant would have received on exercise of the award immediately before the effective time of the transaction, over (B) any exercise price payable by the participant in connection with the exercise.

The plan administrator is not obligated to treat all stock awards or portions of stock awards in the same manner and is not obligated to treat all participants in the same manner.

Under the 2020 Plan, a “corporate transaction” is generally defined as the consummation, in a single transaction or in a series of related transactions, of: (1) a sale of all or substantially all of our assets, (2) the sale or disposition of more than 50% of our outstanding securities, (3) a merger or consolidation where we do not survive the transaction, or (4) a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction.

Change in control. A stock award may be subject to additional acceleration of vesting and exercisability upon or after a change in control as may be provided in an applicable award agreement or other written agreement, but in the absence of such provision, no such acceleration will occur. Under the 2020 Plan, a “change in control” is generally defined as (1) certain acquisitions by a person or company of more than 50% of the combined voting power of our then outstanding stock, (2) a merger, consolidation or similar transaction in which our stockholders immediately before the transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity) in substantially the same proportions as their ownership immediately prior to such transaction, or (3) a sale, lease, exclusive license or other disposition of all or substantially all of our consolidated assets other than to an entity more than 50% of the combined voting power of which is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction.

Amendment and termination. Our administrator may (i) amend the 2020 Plan and the terms of any award granted under the 2020 Plan from time to time or (ii) terminate the 2020 Plan any time, provided that any amendment will not materially and adversely affect participants without their consent. No awards may be granted after the tenth anniversary of the date our board of directors adopted our 2020 Plan. As described above, our 2020

Plan will be terminated upon the effective date of the 2021 Plan and no future awards will be granted under the 2020 Plan following such date.

2009 Stock Plan

Our board of directors adopted the 2009 Stock Plan, or the 2009 Plan, in September 2009, and our stockholders approved the 2009 Plan in January 2010. The 2009 Plan previously terminated and no new awards may be granted under it. Outstanding awards granted under the 2009 Plan remain outstanding, subject to the terms of our 2009 Plan and award agreements, until such outstanding options are exercised or terminate or expire by their terms. As of December 31, 2020, options to purchase six shares of common stock were outstanding under the 2009 Plan.

Plan administration. Our board or a duly authorized committee of our board administers our 2009 Plan and the awards granted under it.

Corporate transaction. Our 2009 Plan provides that in the event of a Corporate Transaction (as defined under our 2009 Plan), that each outstanding option shall be assumed or substituted for an equivalent option by the successor corporation or Parent or Subsidiary (each as defined in our 2009 Plan) of the successor. If, in such event, the options are not assumed or substituted, the option will terminate as of the date of the closing of the merger or Change in Control, as described in our 2009 Plan.

Transferability. Our board may impose limitations on the transferability of ISOs and NSOs as the board will determine. Absent such limitations, a participant may not transfer awards under our 2009 Plan other than by will, the laws of descent and distribution or as otherwise provided under our 2009 Plan.

2021 Employee Stock Purchase Plan

Our board of directors adopted, and our stockholders approved, our 2021 Employee Stock Purchase Plan, or our ESPP, in April 2021. The ESPP will become effective upon the execution of the underwriting agreement for this offering. The purpose of the ESPP is to secure the services of new employees, to retain the services of existing employees, and to provide incentives for such individuals to exert maximum efforts toward our success and that of our affiliates. The ESPP includes two components. One component is designed to allow eligible U.S. employees to purchase our common stock in a manner that may qualify for favorable tax treatment under Section 423 of the Code. In addition, purchase rights may be granted under a component that does not qualify for such favorable tax treatment because of deviations necessary to permit participation by eligible employees who are foreign nationals or employed outside of the United States while complying with applicable foreign laws.

Share reserve. Following this offering, the ESPP authorizes the issuance of 580,000 shares of our common stock under purchase rights granted to our employees or to employees of any of our designated affiliates. The number of shares of our common stock reserved for issuance will automatically increase on January 1 of each calendar year, beginning on January 1, 2022 through January 1, 2031, by the lesser of (i) 1% of the total number of shares of our common stock outstanding on the last day of the calendar year before the date of the automatic increase, and (ii) 1,160,000 shares; provided that before the date of any such increase, our board of directors may determine that such increase will be less than the amount set forth in clauses (i) and (ii). As of the date hereof, no shares of our common stock have been purchased under the ESPP.

Administration. Our board of directors administers the ESPP and may delegate its authority to administer the ESPP to our compensation committee. The ESPP is implemented through a series of offerings under which eligible employees are granted purchase rights to purchase shares of our common stock on specified dates during such offerings. Under the ESPP, we may specify offerings with durations of not more than 27 months, and may specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for employees participating in the offering. An offering under the ESPP may be terminated under certain circumstances.

Payroll deductions. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, may participate in the ESPP and may contribute, normally through payroll deductions, up to 15% of their earnings for the purchase of our common stock under the ESPP. Unless otherwise determined by our

board of directors, common stock will be purchased for the accounts of employees participating in the ESPP at a price per share that is at least the lesser of (i) 85% of the fair market value of a share of our common stock on the first date of an offering, or (ii) 85% of the fair market value of a share of our common stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in the ESPP, as determined by our board of directors, including: (i) being customarily employed for more than 20 hours per week, (ii) being customarily employed for more than five months per calendar year, or (iii) continuous employment with us or one of our affiliates for a period of time (not to exceed two years). No employee may purchase shares under the ESPP at a rate in excess of \$25,000 worth of our common stock based on the fair market value per share of our common stock at the beginning of an offering for each calendar year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under the ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding capital stock measured by vote or value under Section 424(d) of the Code.

Changes to capital structure. In the event that there occurs a change in our capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or similar transaction, the board of directors will make appropriate adjustments to: (i) the class(es) and maximum number of shares reserved under the ESPP, (ii) the class(es) and maximum number of shares by which the share reserve may increase automatically each year, (iii) the class(es) and number of shares subject to and purchase price applicable to outstanding offerings and purchase rights, and (iv) the class(es) and number of shares that are subject to purchase limits under ongoing offerings.

Corporate transactions. In the event of certain significant corporate transactions, any then-outstanding rights to purchase our stock under the ESPP may be assumed, continued, or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue, or substitute for such purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of our common stock within 10 business days before such corporate transaction, and such purchase rights will terminate immediately after such purchase.

Under the ESPP, a corporate transaction is generally the consummation of: (i) a sale of all or substantially all of our assets, (ii) the sale or disposition of more than 50% of our outstanding securities, (iii) a merger or consolidation where we do not survive the transaction, and (iv) a merger or consolidation where we do survive the transaction but the shares of our common stock outstanding immediately before such transaction are converted or exchanged into other property by virtue of the transaction.

ESPP Amendment or Termination. Our board of directors has the authority to amend or terminate our ESPP, provided that except in certain circumstances such amendment or termination may not materially impair any outstanding purchase rights without the holder's consent. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law or listing requirements.

Limitations of liability and indemnification matters

Upon the closing of this offering, our amended and restated certificate of incorporation will contain provisions that limit the liability of our current and former directors for monetary damages to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors, except liability for:

- any breach of the director's duty of loyalty to the corporation or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions; or
- any transaction from which the director derived an improper personal benefit.

Such limitation of liability does not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our amended and restated certificate of incorporation that will be in effect on the closing of this offering will authorize us to indemnify our directors, officers, employees and other agents to the fullest extent permitted by Delaware law. Our amended and restated bylaws that will be in effect upon the closing of this offering will provide that we are required to indemnify our directors and officers to the fullest extent permitted by Delaware law and may indemnify our other employees and agents. Our amended and restated bylaws that will be in effect on the closing of this offering will also provide that, on satisfaction of certain conditions, we will advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors and executive officers. With certain exceptions, these agreements provide for indemnification for related expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in connection with any action, proceeding or investigation. We believe that these amended and restated certificate of incorporation and amended and restated bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain customary directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for directors, executive officers or persons controlling us, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Rule 10b5-1 sales plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades pursuant to parameters established by the director or executive officer when entering into the plan, without further direction from them. The director or executive officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers also may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material nonpublic information, subject to compliance with the terms of our insider trading policy. Prior to the end of the 180th day after the date of execution of the underwriting agreement for this offering (subject to potential early release or termination without notice), the sale of any shares under such plan would be subject to the lock-up agreement that the director or executive officer has entered into with J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC on behalf of the underwriters.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a summary of transactions since January 1, 2018, to which we have been a participant in which the amount involved exceeded or will exceed \$120,000, and in which any of our directors, executive officers or holders of more than five percent of our capital stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest, other than compensation arrangements which are described in “Executive compensation” and “Management—Director compensation.”

We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, in arm’s-length transactions.

Convertible note financing

From March 2019 to March 2020, we issued and sold convertible notes in the aggregate principal amount of \$33.9 million. The convertible notes accrued interest at a rate of 8% per annum. In August 2020, the aggregate principal amount of the convertible notes and accrued interest totaling approximately \$36.4 million were converted into 8,379,410 shares of Series B’ convertible preferred stock at a conversion price of \$4.34226. The following table summarizes the convertible notes issued to holders of more than five percent of our capital stock and certain of our directors and entities affiliated with our officers and directors.

Name of stockholder	Loan amount
KCK Ltd. ⁽¹⁾	\$ 19,481,440
OrbiMed Private Investments VI, LP ⁽²⁾	\$ 10,348,740
Entities affiliated with Joseph S. Lacob ⁽³⁾	\$ 934,720
Frank Fischer ⁽⁴⁾	\$ 1,293,670
Greg and Dori Garfield Living Revocable Trust ⁽⁵⁾	\$ 51,750
Favet Living Trust ⁽⁶⁾	\$ 20,730

- (1) KCK Ltd. is a greater than five percent stockholder, and Nael Karim Kassar and Greg Garfield, members of our board of directors, serve as Partner and Senior Managing Director, respectively, with KCK-US, Inc., which is an entity affiliated with KCK Ltd.
- (2) OrbiMed Private Investments VI, LP is a greater than five percent stockholder, and Rishi Gupta, a member of our board of directors, is a private equity partner at OrbiMed Advisors LLC, which is an entity affiliated with OrbiMed Private Investments VI, LP. Includes convertible notes with a principal balance of \$915,233.60 acquired in August 2020 from another noteholder.
- (3) Consists of LCT18 Investments, LLC and Lacob Ventures LLC, each of which are affiliated with Joseph S. Lacob, a member of our board of directors.
- (4) Mr. Fischer is a member of our board of directors. Includes convertible notes with a principal balance of \$114,404.50 acquired in August 2020 from another noteholder.
- (5) Greg Garfield, a member of our board of directors, is the co-trustee of the Greg and Dori Garfield Living Revocable Trust. Includes convertible notes with a principal balance of \$4,576.13 acquired in August 2020 from another noteholder.
- (6) Michael Favet, our President and Chief Executive Officer and a member of our board of directors, is the co-trustee of the Favet Living Trust. Includes convertible notes with a principal balance of \$1,830.17 acquired in August 2020 from another noteholder.

Series B’ convertible preferred stock financing

In August 2020, we issued and sold an aggregate of 7,599,720 shares of Series B’ convertible preferred stock at a purchase price of \$4.34226 per share for aggregate cash proceeds of approximately \$33.0 million, plus an aggregate of 8,379,410 shares of Series B’ convertible preferred stock issued upon the conversion of outstanding convertible notes. For a description of the material rights and privileges of the Series B’ convertible preferred stock, see Note 13 to our financial statements included elsewhere in this prospectus. Additionally, in connection with our Series B’ convertible preferred stock financing, we entered into a management rights letter with Covidien Group S.à.r.l., a holder of more than five percent of our capital stock, which provides for certain information rights. The management rights letter will terminate upon the closing of this offering.

The following table summarizes the Series B’ convertible preferred stock issued to holders of more than five percent of our capital stock and certain of our directors and entities affiliated with our officers and directors. None of

our other executive officers, other directors or other holders of more than five percent of our capital stock purchased any Series B' convertible preferred stock.

Name of stockholder	Shares of Series B' convertible preferred stock issued for cash	Aggregate cash purchase price	Shares of Series B' convertible preferred stock issued upon conversion of notes
KCK Ltd. ⁽¹⁾	460,548	\$ 1,999,823	4,811,353
OrbiMed Private Investments VI, LP ⁽²⁾	839,100	\$ 3,643,594	2,766,285
Accelmed Partners II LP ⁽³⁾	3,454,422	\$ 15,000,000	—
Covidien Group S.a.r.l. ⁽⁴⁾	1,065,935	\$ 4,628,571	—
Leerink Revelation Healthcare Fund II, L.P. ⁽⁵⁾	888,280	\$ 3,857,143	—
Entities affiliated with Joseph S. Lacob ⁽⁶⁾	72,127	\$ 313,200	236,117
Frank Fischer ⁽⁷⁾	104,887	\$ 455,449	345,993
Greg and Dori Garfield Living Revocable Trust ⁽⁸⁾	4,195	\$ 18,216	13,837
Favet Living Trust ⁽⁹⁾	1,676	\$ 7,282	5,542

(1) KCK Ltd. is a greater than five percent stockholder, and Nael Karim Kassar and Greg Garfield, members of our board of directors, serve as Partner and Senior Managing Director, respectively, with KCK-US, Inc., which is an entity affiliated with KCK Ltd.

(2) OrbiMed Private Investments VI, LP is a greater than five percent stockholder, and Rishi Gupta, a member of our board of directors, is a private equity partner at OrbiMed Advisors LLC, which is an entity affiliated with OrbiMed Private Investments VI, LP.

(3) Accelmed Partners II LP is a greater than five percent stockholder, and Evan Norton, a member of our board of directors, is a General Partner at Accelmed Partners, which is an entity affiliated with Accelmed Partners II LP.

(4) Covidien Group S.a.r.l. is a greater than five percent stockholder.

(5) Leerink Revelation Healthcare Fund II, L.P. is a greater than five percent stockholder.

(6) Consists of LCT18 Investments, LLC and Lacob Ventures LLC, each of which are affiliated with Joseph S. Lacob, a member of our board of directors.

(7) Mr. Fischer is a member of our board of directors.

(8) Greg Garfield, a member of our board of directors, is the co-trustee of the Greg and Dori Garfield Living Revocable Trust.

(9) Michael Favet, our President and Chief Executive Officer and a member of our board of directors, is the co-trustee of the Favet Living Trust.

Investors' rights agreement

In August 2020, we entered into the amended and restated investors' rights agreement, or IRA, with certain holders of our convertible preferred stock and common stock, including KCK Ltd., OrbiMed Private Investments VI, LP, Accelmed Partners II LP, Covidien Group S.a.r.l. and Leerink Revelation Healthcare Fund II, L.P., and certain directors and entities affiliated with our officers and directors. Mr. Kassar and Mr. Garfield are affiliated with KCK Ltd., Mr. Gupta is affiliated with OrbiMed Private Investments VI, LP, Mr. Norton is affiliated with Accelmed Partners II LP and Mr. Lacob is affiliated with LCT18 Investments, LLC and Lacob Ventures LLC. The IRA provides the holders of our convertible preferred stock and warrants to purchase convertible preferred stock with certain registration rights, including the right to demand that we file a registration statement or request that their shares be covered by a registration statement that we are otherwise filing. The IRA also provides these stockholders with information rights, which will terminate upon the closing of this offering, and a right of first refusal with regard to certain issuances of our capital stock, which will not apply to, and will terminate upon the closing of, this offering. After the closing of this offering, the holders of 17,075,296 shares of common stock, shares of common stock issuable upon conversion of outstanding shares of convertible preferred stock and shares of common stock issuable upon the exercise of outstanding warrants upon the closing of this offering, will be entitled to rights with respect to the registration of their shares of common stock under the Securities Act under the IRA. For a description of these registration rights, see "Description of capital stock—Registration rights."

KCK advance for recruitment services

In July 2018, we entered into a letter agreement for executive recruitment services with RBrooks Group, Inc. pursuant to which we were charged a fee of approximately \$0.1 million and such amount was paid to RBrooks

Group, Inc. in advance by KCK Ltd. We also entered into an arrangement with Davenport Executive Search for executive recruitment services, pursuant to which we were charged a fee of approximately \$0.2 million and such amount was paid to Davenport Executive Search in advance by KCK Ltd. We reimbursed KCK Ltd. an aggregate of approximately \$0.3 million for such advances in August 2020.

KCK Ltd. is a greater than five percent stockholder, and Nael Karim Kassar and Greg Garfield, members of our board of directors, serve as Partner and Senior Managing Director, respectively, with KCK-US, Inc., which is an entity affiliated with KCK Ltd. None of our executive officers, directors or holders of more than five percent of our capital stock have any other interests in RBrooks Group, Inc. or Davenport Executive Search.

Medtronic Cross-License

Covidien Group S.a.r.l., an indirect wholly-owned subsidiary of Medtronic, plc, became a holder of more than five percent of our capital stock in August 2020. Pursuant to the terms of the Cross-License, Medtronic was entitled to approximately \$0.3 million, \$0.4 million, and \$0.4 million of royalty payments during the years ended December 31, 2018, 2019 and 2020, respectively.

Policies and procedures for related person transactions

Our board of directors has adopted a related person transaction policy setting forth the policies and procedures for the identification, review and approval or ratification of related person transactions. This policy covers, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we and a related person were or will be participants and the amount involved exceeds \$120,000, including purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness and guarantees of indebtedness. In reviewing and approving any such transactions, our audit committee will consider all relevant facts and circumstances as appropriate, such as the purpose of the transaction, the availability of other sources of comparable products or services, whether the transaction is on terms comparable to those that could be obtained in an arm's length transaction, management's recommendation with respect to the proposed related person transaction, and the extent of the related person's interest in the transaction.

All of the transactions described in this section were entered into prior to the adoption of this policy.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of March 31, 2021, for:

- each person or group of affiliated persons known by us to beneficially own more than 5% of our common stock;
- each of our named executive officers;
- each of our directors; and
- all of our directors and named executive officers as a group.

We have determined beneficial ownership in accordance with the rules and regulations of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Except as indicated by the footnotes below, we believe, based on information furnished to us, that the persons and entities named in the table below have sole voting and sole investment power with respect to all shares that they beneficially own, subject to applicable community property laws.

Applicable percentage ownership before the offering is based on 17,077,397 shares of common stock outstanding as of March 31, 2021, assuming the conversion of all outstanding shares of convertible preferred stock into shares of common stock upon the closing of this offering. Applicable percentage ownership after the offering is based on shares of common stock outstanding immediately after the closing of this offering and further reflects the adjustments described in “Summary—The offering.” In computing the number of shares beneficially owned by a person and the percentage ownership of such person, we deemed to be outstanding all shares subject to options and warrants held by the person that are currently exercisable, or exercisable within 60 days of March 31, 2021. However, except as described above, we did not deem such shares outstanding for the purpose of computing the percentage ownership of any other person. The information contained in the following table is not necessarily indicative of beneficial ownership for any other purpose, and the inclusion of any shares in the table does not constitute an admission of beneficial ownership of those shares.

Unless otherwise indicated, the address of each beneficial owner listed below is c/o NeuroPace, Inc., 455 N. Bernardo Avenue, Mountain View, California 94043. We believe, based on information provided to us, that each of the stockholders listed below has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

Name of beneficial owner	Shares beneficially owned prior to this offering		Shares beneficially owned after this offering	
	Shares	%	Shares	%
Principal stockholders				
KCK Ltd. ⁽¹⁾	5,621,111	32.92 %	5,621,111	25.11 %
Orbimed Private Investments VI, LP ⁽²⁾	3,777,281	22.12 %	3,777,281	16.87 %
Accelmed Partners II LP ⁽³⁾	3,454,422	20.23 %	3,454,422	15.43 %
Covidien Group S.a.r.l. ⁽⁴⁾	1,065,935	6.24 %	1,065,935	4.76 %
Leerink Revelation Healthcare Fund II, L.P. ⁽⁵⁾	931,473	5.45 %	931,473	4.16 %
Directors and named executive officers				
Michael Favet ⁽⁶⁾	1,035,453	5.72 %	1,035,453	4.42 %
Rebecca Kuhn ⁽⁷⁾	211,441	1.22 %	211,441	*
Martha Morrell ⁽⁸⁾	293,942	1.69 %	293,942	1.30 %
Frank Fischer	515,657	3.02 %	515,657	2.30 %
Greg Garfield ⁽¹⁾⁽⁹⁾	5,640,002	33.03 %	5,640,002	25.19 %
Rishi Gupta ⁽²⁾	3,777,281	22.12 %	3,777,281	16.87 %
Nael Karim Kassar ⁽¹⁾	5,621,111	32.92 %	5,621,111	25.11 %
Rakhi Kumar	—	*	—	*
Joseph S. Lacob ⁽¹⁰⁾	352,112	2.06 %	352,112	1.57 %
Evan Norton ⁽³⁾	3,454,422	20.23 %	3,454,422	15.43 %
Renee Ryan	41,170	*	41,170	*
All directors and named executive officers as a group (12 persons) ⁽¹¹⁾	15,413,788	82.43 %	15,413,788	64.19 %

* Represents beneficial ownership of less than 1%.

- (1) KCK Ltd. has sole voting and investment power with respect to the shares. The board of directors of KCK Ltd., consisting of Antoine Sacy, Kamal Kassar, and Nael Karim Kassar, has delegated its authority to vote or invest the shares to Nael Karim Kassar. As such, Nael Karim Kassar may also be deemed to have sole voting and investment with respect to the shares. Mr. Kassar and Greg Garfield, who serves as Senior Managing Director with KCK-US, Inc., an affiliate of KCK Ltd., are also members of our board of directors. The address of each of KCK Ltd., Mr. Kassar and Mr. Garfield is Corner House, 4th Floor, 20 Parliament Street, Hamilton, HM12, Bermuda.
- (2) OrbiMed Capital GP VI LLC (“GP VI”) is the general partner of OrbiMed Private Investments VI, LP (“OPI VI”). OrbiMed Advisors LLC (“Advisors”) is the managing member of GP VI. By virtue of such relationships, GP VI and Advisors may be deemed to have voting and investment power with respect to the shares held by OPI VI and as a result may be deemed to have beneficial ownership of such shares. Advisors exercises investment and voting power through a management committee composed of Carl L. Gordon, Sven H. Borho and Jonathan T. Silverstein. Mr. Gupta, a member of our board of directors, is a private equity partner at Advisors. Each of GP VI and Advisors disclaims beneficial ownership of the shares held by OPI VI. The address of each of GP VI, OPI VI, Advisors and Mr. Gupta is 601 Lexington Avenue, 54th Floor, New York, New York 10022.
- (3) Accelmed Partners II, LLC (“Accelmed LLC”) is the general partner of Accelmed Partners II GP, L.P., which is the general partner of Accelmed Partners II LP. Uri Geiger is the managing partner of Accelmed LLC and has sole voting and dispositive power with respect to the shares held by Accelmed Partners II LP. Mr. Norton, a member of our board of directors, is a General Partner at Accelmed LLC. The address of each of Accelmed LLC, Accelmed Partners II GP, LP, Accelmed Partners II LP and Mr. Norton is Ugland House, South Church Street, PO Box 309, Grand Cayman KY1-1104, Cayman Islands.
- (4) The board of managers of Covidien Group S.à.r.l. has sole voting and investment power over such shares. None of the members of its board of managers has individual voting or investment power with respect to such shares and each disclaims beneficial ownership of such shares. Covidien Group S.à.r.l. is an indirect wholly-owned subsidiary of Medtronic plc, a publicly held Irish public limited company. The address of Covidien Group S.a.r.l. is a 3b, Bd. Prince Henri, 4th Floor L-1724 Luxembourg.
- (5) Leerink Revelation Healthcare Fund II GP, LLC is the general partner of Leerink Revelation Healthcare Fund II GP, L.P., which is the general partner of Leerink Revelation Healthcare Fund II, L.P. Leerink Revelation Healthcare Fund II GP, LLC, through four managing members, composed of Scott Halsted, Zachary Scott, Michael Boggs, and Michael Stansky has voting and dispositive authority over the shares owned by Leerink Revelation Healthcare Fund II, L.P. The address of Leerink Revelation Healthcare Fund II, L.P. is 255 California Street, 12th Floor, San Francisco, California 94111.
- (6) Includes 7,562 shares held by the Favet Living Trust, and 1,027,891 shares that may be acquired upon exercise of stock options within 60 days of March 31, 2021, 15,385 of which were acquired on the exercise of stock options by Mr. Favet in April 2021.
- (7) Includes 208,215 shares that may be acquired upon exercise of stock options within 60 days of March 31, 2021.
- (8) Includes 292,424 shares that may be acquired upon exercise of stock options within 60 days of March 31, 2021.
- (9) Includes 18,891 shares held by the Greg and Dori Garfield Living Revocable Trust.

- (10) Includes 128,174 shares held by Lacob Ventures LLC, 223,554 shares held by LCT18 Investments, LLC, and 192 shares that may be acquired upon exercise of stock options within 60 days of March 31, 2021.
- (11) Includes the shares held by our officers and directors listed in the table above, and an additional 92,308 shares that may be acquired upon exercise of stock options within 60 days of March 31, 2021, held by one other executive officer.

DESCRIPTION OF CAPITAL STOCK

The description below of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries and are qualified by reference to the amended and restated certificate of incorporation and the amended and restated bylaws to be in effect upon the closing of this offering, which are filed as exhibits to the registration statement of which this prospectus is part, and by the applicable provisions of Delaware law.

General

Upon the closing of this offering, our amended and restated certificate of incorporation will authorize us to issue up to 200,000,000 shares of common stock, \$0.001 par value per share, and 10,000,000 shares of convertible preferred stock, par value \$0.001 per share.

As of December 31, 2020, there were 314,096 shares of common stock issued and outstanding, held by 260 stockholders of record.

As of December 31, 2020, after giving effect to the conversion of 16,614,178 outstanding shares of convertible preferred stock into an equal number of shares of common stock and no exercise of outstanding options or warrants, there would have been 16,928,274 shares of common stock outstanding, held by 271 stockholders of record.

Common stock

Voting rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders, including the election of directors. Under our amended and restated certificate of incorporation, our stockholders will not have cumulative voting rights. Because of this, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividend rights

Subject to preferences that may apply to any then-outstanding convertible preferred stock, the holders of common stock are entitled to receive ratably those dividends, if any, as may be declared from time to time by the board of directors out of legally available funds. We do not anticipate paying any cash dividends in the foreseeable future.

Liquidation rights

In the event of our liquidation, dissolution or winding up, holders of common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of convertible preferred stock.

Preemptive or similar rights

Holders of common stock have no preemptive, conversion or subscription rights and there are no redemption or sinking fund provisions applicable to the common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of convertible preferred stock that we may designate in the future.

Convertible preferred stock

Under our amended and restated certificate of incorporation to be in effect upon the closing of this offering, our board of directors may, without further action by our stockholders, fix the rights, preferences, privileges and restrictions of up to an aggregate of 10,000,000 shares of convertible preferred stock in one or more series and authorize their issuance. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and the number of shares constituting any series or the

designation of such series, any or all of which may be greater than the rights of common stock. Any issuance of convertible preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders would receive dividend payments and payments on liquidation. In addition, the issuance of convertible preferred stock could have the effect of delaying, deterring or preventing a change of control or other corporate action. No shares of convertible preferred stock will be outstanding immediately following the closing of this offering. We have no present plans to issue any shares of convertible preferred stock.

Stock options

As of December 31, 2020, options to purchase an aggregate of 2,835,265 shares of common stock were outstanding under our 2020 Plan, and options to purchase an aggregate of six shares of common stock were outstanding under our 2009 Plan. As of December 31, 2020, 818,889 shares of common stock were reserved for future issuance under our 2020 Plan, and no shares of common stock were reserved for future issuance under our 2009 Plan. All reserved shares under the 2020 Plan and the 2009 Plan will cease to be available for issuance at the time our 2021 Plan becomes effective in connection with this offering. For additional information regarding the terms of these plans, see “Executive compensation—Employee benefit and stock plans.”

Warrants

As of December 31, 2020, we had warrants to purchase an aggregate of (i) 346,823 shares of Series B’ convertible preferred stock outstanding with an exercise price of \$6.51339 per share, or the Series B’ Warrants, and (ii) 219 shares of common stock with an exercise price of \$2.60 per share, or the Common Warrants. Prior to the closing of this offering, we expect that all Series B’ Warrants, which would otherwise expire upon the closing of this offering, will be net exercised for shares of Series B’ convertible preferred stock, which will convert into an equal number of shares of common stock upon the closing of this offering, and we expect that all Common Warrants, which would otherwise expire upon the closing of this offering, will be net exercised for shares of common stock.

Registration rights

We are party to the IRA which provides various rights to certain holders of shares of common stock, including those shares of common stock that will be issued upon conversion of convertible preferred stock in connection with this offering and shares of common stock issuable upon the exercise of outstanding warrants upon the closing of this offering. These shares to be issued upon conversion are referred to as registrable securities. The holders of these registrable securities possess registration rights pursuant to the terms of the IRA and are described in additional detail below. We, along with KCK Ltd., OrbiMed Private Investments VI, LP, Accelmed Partners II LP, Covidien Group S.a.r.l., Leerink Revelation Healthcare Fund II, L.P., certain directors and entities affiliated with our directors, and other stockholders, are parties to the IRA. We entered into the IRA in connection with the issuance of Series B’ convertible preferred stock in August 2020. The following summary discusses certain material provisions of the IRA and is qualified by the full text of the agreement, which is filed as an exhibit to the registration statement of which this prospectus is a part.

Certain stockholders who are party to the IRA have waived their registration rights and the registration rights of the other stockholders who are party to the IRA, in each case, with respect to this offering.

The registration of shares of common stock pursuant to the exercise of registration rights described below would enable the holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective. We will pay the registration expenses (other than underwriting discounts, selling commissions and stock transfer taxes) of the shares registered pursuant to the demand, piggyback and Form S-3 registrations described below.

Generally, in an underwritten offering, we have the right, subject to specified conditions, to limit the number of shares the holders may include to be registered. The demand, piggyback and Form S-3 registration rights described below will terminate on the date five years following the closing of this offering.

Demand registration rights

The holders of an aggregate of 16,548,040 shares of common stock, shares of common stock issuable upon conversion of outstanding shares of convertible preferred stock and shares of common stock issuable upon the exercise of outstanding warrants upon the closing of this offering will be entitled to certain demand registration rights. Beginning on the date six (6) months following the effective date of the registration statement of which this prospectus is a part, upon the written request of the holders of more than 30% of our registrable securities then outstanding, that we file a registration statement under the Securities Act where the anticipated aggregate offering price would exceed \$10,000,000, we are obligated to register the sale of all registrable securities that the holders may request in writing to be registered. We are required to effect no more than two registration statements that are declared or ordered effective at the request of such holders. We may postpone the filing of a registration statement for up to 120 days once in a twelve-month period if in the good faith judgment of our board of directors such registration would be seriously detrimental to us.

Piggyback registration rights

The holders of an aggregate of 17,075,296 shares of common stock, shares of common stock issuable upon conversion of outstanding shares of convertible preferred stock and shares of common stock issuable upon the exercise of outstanding warrants upon the closing of this offering will be entitled to certain piggyback registration rights. If we register any of our securities for public sale, either for our own account or for the account of other security holders, we will also have to register all registrable securities that the holders of such securities request in writing be registered. This piggyback registration right does not apply to a registration relating to any of our stock plans, stock purchase or similar plan, a transaction under Rule 145 of the Securities Act, or a registration related to the offer and sale of debt securities.

Form S-3 registration rights

The holders of an aggregate of 16,548,040 shares of common stock, shares of common stock issuable upon conversion of outstanding shares of convertible preferred stock and shares of common stock issuable upon the exercise of outstanding warrants upon the closing of this offering will be entitled to certain registration rights on Form S-3. The holders of these shares can request that we register all or a portion of their shares on Form S-3 if we are eligible to file a registration statement on Form S-3 and the aggregate price to the public of the shares offered is in excess of \$1,000,000. We are required to effect no more than one Form S-3 registration statement that is declared or ordered effective in any six-month period. We may postpone the filing of a registration statement for up to 120 days not more than once in a 12-month period if in the good faith judgment of our board of directors such registration would be seriously detrimental to us.

Anti-takeover provisions

Section 203 of the Delaware General Corporation Law

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

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

- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include the following:

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

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

A Delaware corporation may “opt out” of these provisions with an express provision in its original certificate of incorporation or an express provision in its amended and restated certificate of incorporation or amended and restated bylaws resulting from a stockholders’ amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Certificate of incorporation and bylaws to be in effect upon the closing of this offering

Among other things, our amended and restated certificate of incorporation and amended and restated bylaws will:

- permit our board of directors to issue up to 10,000,000 shares of convertible preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change of control;
- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that our board of directors will be classified into three classes of directors;
- provide that, subject to the rights of any series of convertible preferred stock to elect directors, directors may only be removed for cause, which removal may be effected, subject to any limitation imposed by law, by the holders of at least 66 2/3% of the voting power of all of our then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent or electronic transmission;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder’s notice;

- provide that special meetings of our stockholders may be called only by the chairperson of our board of directors, our chief executive officer or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The amendment of any of these provisions would require approval by the holders of at least 66 2/3% of the voting power of all of our then-outstanding capital stock entitled to vote generally in the election of directors, voting together as a single class.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated convertible preferred stock makes it possible for our board of directors to issue convertible preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may, amongst other things, also inhibit fluctuations in the market price of our stock.

Choice of forum

Our amended and restated certificate of incorporation that will be in effect upon the closing of this offering will provide that the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) is the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action arising pursuant to the Delaware General Corporation Law, or DGCL, our amended and restated certificate of incorporation or our amended and restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act or any claim for which the federal district courts of the United States of America have exclusive jurisdiction. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims.

To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated certificate of incorporation to be in effect upon the closing of this offering will further provide that the federal district courts of the United States will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. See “Risk factors—including, amongst others, Risks related to this offering and ownership of our common stock—Our amended and restated certificate of incorporation to be in effect upon the closing of this offering will provide that the Court of Chancery of the State of Delaware or, under certain circumstances, the federal district courts of the United States of America will be the exclusive forums for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders’ ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.”

Limitations of liability and indemnification

See “Executive compensation—Limitations of liability and indemnification matters.”

Exchange listing

Our common stock is currently not listed on any securities exchange. We have applied to list our common stock on the Nasdaq Global Market under the symbol “NPCE.”

Transfer agent and registrar

The transfer agent and registrar for our common stock upon the closing of this offering will be Broadridge Corporate Issuer Solutions, Inc. The transfer agent’s address is 51 Mercedes Way, Edgewood, New York 11717.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock. Future sales of substantial amounts of common stock in the public market, or the perception that such sales may occur, could adversely impact the market price of our common stock and impair our ability to raise equity capital in the future. Although we have applied to list our common stock on the Nasdaq Global Market, we cannot assure you that there will be an active public market for our common stock.

Following the closing of this offering, based on the number of shares of common stock outstanding as of December 31, 2020 and assuming no exercise of the underwriters' option to purchase additional shares, we will have an aggregate of approximately 22,241,274 shares of common stock outstanding. Of these shares, all shares of common stock sold in this offering will be freely tradable without restriction or further registration under the Securities Act, except for any shares of common stock purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act, or subject to lock-up agreements. Shares purchased by our affiliates would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

The remaining shares of common stock outstanding after this offering will be "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, each of which is summarized below. We expect that substantially all of these shares will be subject to a 180-day lock-up period under the lock-up and market stand-off agreements described below.

We may issue shares of common stock from time to time as consideration for future acquisitions, investments or other corporate purposes. In the event any such acquisition, investment or other transaction is significant, the number of shares of common stock that we may issue may also be significant. We may also grant registration rights covering those shares of common stock issued in connection with any such acquisition, investment or other transaction.

In addition, shares of common stock that are either subject to outstanding options or warrants or reserved for future issuance under our equity incentive plans will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements described below, and Rules 144 and 701 under the Securities Act.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements of Section 13 or Section 15(d) of the Exchange Act for at least 90 days, an eligible stockholder is entitled to sell such shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. To be an eligible stockholder under Rule 144, such stockholder must not be deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and must have beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then such person is entitled to sell such shares without complying with any of the requirements of Rule 144, subject to the expiration of the lock-up agreements described above.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell shares on expiration of the lock-up agreements described above. Beginning 90 days after the date of this prospectus, within any three-month period, such stockholders may sell a number of shares that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately 222,413 shares immediately after this offering based on the number of shares of common stock outstanding as of December 31, 2020; or

- the average weekly trading volume in our common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale, provided in each case that we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who was issued shares under a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days, to sell these shares in reliance on Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required by that rule to wait until 90 days after the date of this prospectus before selling those shares under Rule 701, subject to the expiration of the lock-up agreements described below and in “Underwriting.”

Form S-8 registration statement

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of common stock subject to outstanding stock options and common stock issued or issuable under the 2009 Plan, the 2020 Plan, the 2021 Plan and the ESPP. We expect to file the registration statement covering shares offered pursuant to these stock plans shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market subject to compliance with the resale provisions of Rule 144.

Lock-up agreements

We, our directors, executive officers and the holders of substantially all of our equity securities have agreed with the underwriters that for a period of 180 days after the date of this prospectus, subject to specified exceptions as detailed further in “Underwriting” below, we or they will not, except with the prior written consent of J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to sell or otherwise dispose of or transfer any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, request or demand that we file a registration statement related to our common stock, or enter into any swap or other agreement that transfers to another, in whole or in part, directly or indirectly, the economic consequence of ownership of the common stock. Substantially all of our optionholders are also subject to a market stand-off agreement with us which imposes similar restrictions.

Upon expiration of the lock-up period, certain of our stockholders will have the right to require us to register their shares under the Securities Act. See “—Registration rights” below and “Description of capital stock—Registration rights.” Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above.

Registration rights

Upon the closing of this offering, holders of an aggregate of 17,075,296 shares of our common stock, which includes all of the shares of common stock issuable upon the conversion of convertible preferred stock upon the closing of this offering, or their transferees and the shares issuable upon the exercise of warrants to purchase shares of common stock and convertible preferred stock (on an as-converted basis), are entitled to various rights with respect to the registration of these shares under the Securities Act upon the closing of this offering and the expiration of the lock-up agreements. Registration of these shares under the Securities Act would result in these shares becoming freely tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares subsequently purchased by affiliates. See “Description of capital stock—Registration

rights” for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreements.

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following summary describes the material U.S. federal income tax consequences of the acquisition, ownership and disposition of our common stock acquired in this offering by Non-U.S. Holders (as defined below). This discussion is not a complete analysis of all potential U.S. federal income tax consequences relating thereto, and does not deal with foreign, state and local consequences that may be relevant to Non-U.S. Holders in light of their particular circumstances, nor does it address U.S. federal tax consequences (such as gift and estate taxes) other than income taxes. Special rules different from those described below may apply to certain Non-U.S. Holders that are subject to special treatment under the Code, such as financial institutions, insurance companies, tax-exempt organizations, broker-dealers and traders in securities, U.S. expatriates, “controlled foreign corporations,” “passive foreign investment companies,” corporations that accumulate earnings to avoid U.S. federal income tax, corporations organized outside of the United States, any state thereof and the District of Columbia that are nonetheless treated as U.S. taxpayers for U.S. federal income tax purposes, persons that hold our common stock as part of a “straddle,” “hedge,” “conversion transaction,” “synthetic security” or integrated investment or other risk reduction strategy, persons who acquire our common stock through the exercise of an option or otherwise as compensation, persons subject to the alternative minimum tax or federal Medicare contribution tax on net investment income, persons subject to special tax accounting rules under Section 451(b) of the Code, “qualified foreign pension funds” as defined in Section 897(1)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds, partnerships and other pass-through entities or arrangements, and investors in such pass-through entities or arrangements. Such Non-U.S. Holders are urged to consult their own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them. Furthermore, the discussion below is based upon the provisions of the Code, and Treasury Regulations, rulings and judicial decisions thereunder as of the date hereof, and such authorities may be repealed, revoked or modified, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the U.S. Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions. This discussion assumes that the Non-U.S. Holder holds our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment).

This discussion is for informational purposes only and is not tax advice. Persons considering the purchase of our common stock pursuant to this offering should consult their own tax advisors concerning the U.S. federal income, estate and other tax consequences of acquiring, owning and disposing of our common stock in light of their particular situations as well as any consequences arising under the laws of any other taxing jurisdiction, including any state, local or foreign tax consequences.

For the purposes of this discussion, a “Non-U.S. Holder” is, for U.S. federal income tax purposes, a beneficial owner of common stock that is neither a U.S. Holder, nor a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) regardless of its place of organization or formation. A “U.S. Holder” means a beneficial owner of common stock that is for U.S. federal income tax purposes any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation or other entity treated as a corporation for U.S. federal income tax purposes created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if it (i) is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all substantial decisions of the trust or (ii) has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

Distributions

Distributions, if any, made on our common stock to a Non-U.S. Holder to the extent made out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles) generally will constitute dividends for U.S. tax purposes and will be subject to withholding tax at a 30% rate or such lower rate as may be

specified by an applicable income tax treaty, subject to the discussions below regarding effectively connected income, backup withholding and foreign accounts. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide us with a properly executed IRS Form W-8BEN (in the case of individuals) or IRS Form W-8BEN-E (in the case of entities), or other appropriate form, certifying the Non-U.S. Holder's entitlement to benefits under that treaty. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. In the case of a Non-U.S. Holder that is an entity, Treasury Regulations and the relevant tax treaty provide rules to determine whether, for purposes of determining the applicability of a tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a Non-U.S. Holder holds stock through a financial institution or other agent acting on the Non-U.S. Holder's behalf, the Non-U.S. Holder will be required to provide appropriate documentation to such agent. The Non-U.S. Holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. If a Non-U.S. Holder is eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty and does not timely file the required certification, the Non-U.S. Holder may be able to obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

We generally are not required to withhold tax on dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base that such Non-U.S. Holder maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to us (or, if stock is held through a financial institution or other agent, to such agent). In general, such effectively connected dividends will be subject to U.S. federal income tax on a net-income basis at the regular rates applicable to U.S. residents. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional "branch profits tax," which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable income tax treaty) on the corporate Non-U.S. Holder's effectively connected earnings and profits, subject to certain adjustments. Non-U.S. Holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

To the extent distributions on our common stock, if any, exceed our current and accumulated earnings and profits, they will first reduce the Non-U.S. Holder's adjusted basis in our common stock, but not below zero, and then will be treated as gain to the extent of any excess amount distributed, and taxed in the same manner as gain realized from a sale or other disposition of common stock as described in the next section.

Gain on disposition of our common stock

Subject to the discussions below regarding backup withholding and foreign accounts, a Non-U.S. Holder generally will not be subject to U.S. federal income tax with respect to gain realized on a sale or other disposition of our common stock unless (a) the gain is effectively connected with a trade or business of such Non-U.S. Holder in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base that such holder maintains in the United States), (b) the Non-U.S. Holder is a nonresident alien individual and is present in the United States for 183 or more days in the taxable year of the disposition and certain other conditions are met or (c) we are or have been a "United States real property holding corporation" within the meaning of Code Section 897(c)(2) at any time within the shorter of the five-year period preceding such disposition or such Non-U.S. Holder's holding period. In general, we would be a United States real property holding corporation if our interests in U.S. real estate comprise (by fair market value) at least half of our business assets. We believe that we have not been and we are not, and do not anticipate becoming, a United States real property holding corporation. Even if we are treated as a United States real property holding corporation, gain realized by a Non-U.S. Holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the Non-U.S. Holder owned, directly, indirectly and constructively, no more than 5% of our common stock at all times within the shorter of (i) the five-year period preceding the disposition or (ii) the Non-U.S. Holder's holding period and (2) our common stock is regularly traded on an established securities market. There can be no assurance that our common stock will qualify or continue to qualify as regularly traded on an established securities market. If any gain on a Non-U.S. Holder's disposition is taxable because we are a United States real property holding corporation and the Non-U.S. Holder's ownership of our common stock exceeds 5%, the Non-U.S. Holder will be taxed on such disposition generally in the same manner as gain that is effectively connected with the conduct of a U.S. trade or

business (subject to the provisions under an applicable income tax treaty), except that the branch profits tax generally will not apply.

A Non-U.S. Holder described in (a) above will be required to pay tax on the net gain derived from the sale at regular U.S. federal income tax rates, and corporate Non-U.S. Holders described in (a) above may be subject to the additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. Gain described in (b) above will be subject to U.S. federal income tax at a flat 30% rate or such lower rate as may be specified by an applicable income tax treaty, which gain may be offset by certain U.S.-source capital losses (even though the Non-U.S. Holder is not considered a resident of the United States), provided that the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

Information reporting and backup withholding

Generally, we must report information to the IRS with respect to any distributions we pay on our common stock (even if the payments are exempt from withholding), including the amount of any such distributions, the name and address of the recipient and the amount, if any, of tax withheld. A similar report will be sent to the Non-U.S. Holder to whom any such distributions are paid. Pursuant to tax treaties or certain other agreements, the IRS may make its reports available to tax authorities in the recipient's country of residence.

Dividends paid by us (or our paying agents) to a Non-U.S. Holder may also be subject to U.S. backup withholding (currently at a rate of 24%). U.S. backup withholding generally will not apply to a Non-U.S. Holder who provides a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E or IRS Form W-8ECI (as applicable), or otherwise establishes an exemption. Notwithstanding the foregoing, backup withholding may apply if the payor has actual knowledge, or reason to know, that the holder is a U.S. person who is not an exempt recipient.

U.S. information reporting and backup withholding requirements generally will apply to the proceeds of a disposition of our common stock effected by or through a U.S. office of any broker, U.S. or foreign, unless the Non-U.S. Holder provides a properly executed IRS Form W-8BEN or IRS Form W-8BEN-E or otherwise meets documentary evidence requirements for establishing non-U.S. person status or otherwise establishes an exemption. Generally, U.S. information reporting and backup withholding requirements will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a non-U.S. broker. Information reporting and backup withholding requirements, however, may apply to a payment of disposition proceeds if the broker has actual knowledge, or reason to know, that the holder is, in fact, a U.S. person. For information reporting purposes, certain brokers with substantial U.S. ownership or operations generally will be treated in a manner similar to U.S. brokers.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be credited against the tax liability of persons subject to backup withholding, provided that the required information is timely furnished to the IRS.

Foreign accounts

Sections 1471 through 1474 of the Code (commonly referred to as FATCA) impose a U.S. federal withholding tax of 30% on certain payments to a foreign financial institution (as specifically defined by applicable rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). FATCA also generally imposes a federal withholding tax of 30% on certain payments, including dividends paid on, and the gross proceeds of a disposition of, our common stock to a non-financial foreign entity unless such entity provides the withholding agent with either a certification that it does not have any substantial direct or indirect U.S. owners or provides information regarding substantial direct and indirect U.S. owners of the entity. An intergovernmental agreement between the United States and an applicable foreign country may modify those requirements. The withholding tax described above will not apply if the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from the rules.

The withholding provisions described above currently apply to payments of dividends.

The U.S. Treasury Department has released proposed regulations which, if finalized in their present form, would eliminate the federal withholding tax of 30% that otherwise would apply to the gross proceeds of a disposition of our common stock. In its preamble to such proposed regulations, the U.S. Treasury Department stated that taxpayers may generally rely on the proposed regulations until final regulations are issued. Non-U.S. Holders are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY RECENT OR PROPOSED CHANGE IN APPLICABLE LAW.

UNDERWRITING

We are offering the shares of common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC and Morgan Stanley & Co. LLC are acting as joint book-running managers of the offering and as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the initial public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

Name	Number of Shares
J.P. Morgan Securities LLC	
Morgan Stanley & Co. LLC	
Wells Fargo Securities, LLC	
SVB Leerink LLC	
Total	5,313,000

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

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

The underwriters have an option to purchase up to 796,950 additional shares of common stock from us to cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days from the date of this prospectus to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

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

	Without option to purchase additional shares exercise	With full option to purchase additional shares exercise
Per Share	\$	\$
Total	\$	\$

We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$3.5 million. We have agreed to reimburse the underwriters for expenses of up to \$40,000 relating to the clearance of this offering with the Financial Industry Regulatory Authority.

A prospectus in electronic format may be made available on the websites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate

a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, or submit to, or file with, the Securities and Exchange Commission a registration statement under the Securities Act of 1933, relating to, any shares of our common stock or securities convertible into or exercisable or exchangeable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, loan, disposition or filing, or (ii) enter into any swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any shares of common stock or any such other securities (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), in each case without the prior written consent of the representatives for a period of 180 days after the date of this prospectus, other than the shares of our common stock to be sold hereunder and any shares of our common stock issued upon the exercise of options granted under our existing stock-based compensation plans.

The restrictions on our actions, as described above, do not apply to the shares of common stock to be sold in this offering and any shares of our common stock issued upon the exercise of options granted under our stock-based compensation plans.

Our directors and executive officers, and substantially all of our stockholders, or the “lock-up parties, have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each lock-up party, with limited exceptions, for a period of 180 days after the date of this prospectus, or the restricted period, may not (and may not cause any of their direct or indirect affiliates to), without the prior written consent of the representatives, (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such lock-up parties in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant, or collectively with the common stock, the lock-up securities, (ii) enter into any hedging, swap or other agreement or transaction that transfers, in whole or in part, any of the economic consequences of ownership of the lock-up securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of lock-up securities, in cash or otherwise, (iii) make any demand for, or exercise any right with respect to, the registration of any lock-up securities, or (iv) publicly disclose the intention to do any of the foregoing. Such persons or entities have further acknowledged that these undertakings preclude them from engaging in any hedging or other transactions or arrangements (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) designed or intended, or which could reasonably be expected to lead to or result in, a sale or disposition or transfer (by any person or entity, whether or not a signatory to such agreement) of any economic consequences of ownership, in whole or in part, directly or indirectly, of any lock-up securities, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of lock-up securities, in cash or otherwise.

The restrictions described in the immediately preceding paragraph and contained in the lock-up agreements between the underwriters and the lock-up parties do not apply, subject in certain cases to various conditions, to certain transactions, including (a) transfers of lock-up securities: (i) as bona fide gifts, or for bona fide estate planning purposes, (ii) by will or intestacy, (iii) to any trust for the direct or indirect benefit of the lock-up party or any immediate family member, (iv) to a partnership, limited liability company or other entity of which the lock-up party and its immediate family members are the legal and beneficial owner of all of the outstanding equity securities or similar interests, (v) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (i) through (iv), (vi) in the case of a corporation, partnership, limited liability company, trust or other business entity, (A) to another corporation, partnership, limited liability company, trust or other business entity that is an affiliate of the lock-up party, or to any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the lock-up party or its affiliates or (B) as

part of a distribution to members or stockholders of the lock-up party; (vii) by operation of law, (viii) to us from an employee upon death, disability or termination of employment of such employee, (ix) as part of a sale of lock-up securities acquired in open market transactions after the completion of this offering, (x) to us in connection with the vesting, settlement or exercise of restricted stock units, options, warrants or other rights to purchase shares of our common stock (including “net” or “cashless” exercise), including for the payment of exercise price and tax and remittance payments, or (xi) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction approved by our board of directors and made to all stockholders involving a change in control, provided that if such transaction is not completed, all such lock-up securities would remain subject to the restrictions in the immediately preceding paragraph; (b) exercise of the options, settlement of RSUs or other equity awards, or the exercise of warrants granted pursuant to plans described in in this prospectus, provided that any lock-up securities received upon such exercise, vesting or settlement would be subject to restrictions similar to those in the immediately preceding paragraph; (c) the conversion of outstanding convertible preferred stock, warrants to acquire convertible preferred stock, or convertible securities into shares of our common stock or warrants to acquire shares of our common stock, provided that any common stock or warrant received upon such conversion would be subject to restrictions similar to those in the immediately preceding paragraph; and (d) the establishment by lock-up parties of trading plans under Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for the transfer of lock-up securities during the restricted period.

The representatives, in their sole discretion, may release the common stock subject to the lock-up agreements described above in whole or in part at any time with or without notice.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933.

We have applied to list our common stock on the Nasdaq Global Market under the symbol “NPCE.”

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of the common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be “covered” shorts, which are short positions in an amount not greater than the underwriters’ option to purchase additional shares referred to above, or may be “naked” shorts, which are short positions in excess of that amount. The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act of 1933, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on The Nasdaq Global Market, in the over-the-counter market or otherwise.

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;
- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for our common stock, or that the shares will trade in the public market at or above the initial public offering price.

Certain of the underwriters and their affiliates may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they may receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Selling restrictions

General

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Notice to prospective investors in the European Economic Area

In relation to each Member State of the European Economic Area, or, each a Member State, no shares have been offered or will be offered pursuant to the offering to the public in that Member State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Member State or, where appropriate, approved in another Member State and notified to the competent authority in that Member State, all in accordance with the Prospectus Regulation, except that offers of shares may be made to the public in that Member State at any time under the following exemptions under the Prospectus Regulation:

- (a) to any legal entity which is a qualified investor as defined under the Prospectus Regulation;
- (b) to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the underwriters; or

(c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and us that it is a “qualified investor” within the meaning of Article 2(e) of the Prospectus Regulation. In the case of any shares being offered to a financial intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Member State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an “offer to the public” in relation to shares in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

Notice to prospective investors in the United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the Order, and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order, or, all such persons together being referred to as relevant persons, or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Notice to prospective investors in Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to prospective investors in Switzerland

The shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus within the meaning of, and has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, us or the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority, or FINMA, and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Notice to prospective investors in the Dubai International Financial Centre, or DIFC

This document relates to an Exempt Offer in accordance with the Markets Rules 2012 of the Dubai Financial Services Authority, or the DFSA. This document is intended for distribution only to persons of a type specified in the Markets Rules 2012 of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for this document. The securities to which this document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this document you should consult an authorized financial advisor.

In relation to its use in the DIFC, this document is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The interests in the securities may not be offered or sold directly or indirectly to the public in the DIFC.

Notice to prospective investors in the United Arab Emirates

The shares have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of securities. Further, this prospectus does not constitute a public offer of securities in the United Arab Emirates (including the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority or the Dubai Financial Services Authority.

Notice to prospective investors in Australia

This prospectus:

- does not constitute a disclosure document or a prospectus under Chapter 6D.2 of the Corporations Act 2001 (Cth), or the Corporations Act;
- has not been, and will not be, lodged with the Australian Securities and Investments Commission, or ASIC, as a disclosure document for the purposes of the Corporations Act and does not purport to include the information required of a disclosure document for the purposes of the Corporations Act; and

- may only be provided in Australia to select investors who are able to demonstrate that they fall within one or more of the categories of investors, available under section 708 of the Corporations Act, Exempt Investors.

The shares may not be directly or indirectly offered for subscription or purchased or sold, and no invitations to subscribe for or buy the shares may be issued, and no draft or definitive offering memorandum, advertisement or other offering material relating to any shares may be distributed in Australia, except where disclosure to investors is not required under Chapter 6D of the Corporations Act or is otherwise in compliance with all applicable Australian laws and regulations. By submitting an application for the shares, you represent and warrant to us that you are an Exempt Investor.

As any offer of shares under this document will be made without disclosure in Australia under Chapter 6D.2 of the Corporations Act, the offer of those securities for resale in Australia within 12 months may, under section 707 of the Corporations Act, require disclosure to investors under Chapter 6D.2 if none of the exemptions in section 708 applies to that resale. By applying for the shares you undertake to us that you will not, for a period of 12 months from the date of issue of the shares, offer, transfer, assign or otherwise alienate those shares to investors in Australia except in circumstances where disclosure to investors is not required under Chapter 6D.2 of the Corporations Act or where a compliant disclosure document is prepared and lodged with ASIC.

Notice to prospective investors in Japan

The shares have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the shares nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any “resident” of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

Notice to prospective investors in Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong), or the SFO, of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of Hong Kong), or the CO, or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made thereunder.

Notice to prospective investors in Singapore

Singapore SFA Product Classification — In connection with Section 309B of the SFA and the CMP Regulations 2018, unless otherwise specified before an offer of shares, the we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that the shares are “prescribed capital markets products” (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Each underwriter has acknowledged that this prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any shares or caused the shares to be made the subject of an invitation for subscription or purchase and will

not offer or sell any shares or cause the shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, whether directly or indirectly, to any person in Singapore other than:

- (a) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time, or the SFA) pursuant to Section 274 of the SFA;
- (b) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA and in accordance with the conditions specified in Section 275 of the SFA; or
- (c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (a) a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

- (i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 276(4)(i)(B) of the SFA;
- (ii) where no consideration is or will be given for the transfer;
- (iii) where the transfer is by operation of law;
- (iv) as specified in Section 276(7) of the SFA; or
- (v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Notice to prospective investors in Bermuda

Shares may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda which regulates the sale of securities in Bermuda. Additionally, non-Bermudian persons (including companies) may not carry on or engage in any trade or business in Bermuda unless such persons are permitted to do so under applicable Bermuda legislation.

Notice to prospective investors in Saudi Arabia

This document may not be distributed in the Kingdom of Saudi Arabia except to such persons as are permitted under the Offers of Securities Regulations as issued by the board of the Saudi Arabian Capital Market Authority, or the CMA, pursuant to resolution number 2-11-2004 dated 4 October 2004 as amended by resolution number 1-28-2008, as amended, or the CMA Regulations. The CMA does not make any representation as to the accuracy or completeness of this document and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this document. Prospective purchasers of the securities offered hereby should conduct their own due diligence on the accuracy of the information relating to the securities. If you do not understand the contents of this document, you should consult an authorized financial adviser.

Notice to prospective investors in the British Virgin Islands

The shares are not being, and may not be offered to the public or to any person in the British Virgin Islands for purchase or subscription by or on behalf of us. The shares may be offered to companies incorporated under the BVI Business Companies Act, 2004 (British Virgin Islands), or BVI Companies, but only where the offer will be made to, and received by, the relevant BVI Company entirely outside of the British Virgin Islands.

Notice to prospective investors in China

This prospectus will not be circulated or distributed in the PRC and the shares will not be offered or sold, and will not be offered or sold to any person for re-offering or resale directly or indirectly to any residents of the PRC except pursuant to any applicable laws and regulations of the PRC. Neither this prospectus nor any advertisement or other offering material may be distributed or published in the PRC, except under circumstances that will result in compliance with applicable laws and regulations.

Notice to prospective investors in Korea

The shares have not been and will not be registered under the Financial Investments Services and Capital Markets Act of Korea, or the FSCMA, and the decrees and regulations thereunder and the shares have been and will be offered in Korea as a private placement under the FSCMA. None of the shares may be offered, sold or delivered directly or indirectly, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to the applicable laws and regulations of Korea, including the FSCMA and the Foreign Exchange Transaction Law of Korea, or the FETL, and the decrees and regulations thereunder. The shares have not been listed on any of securities exchanges in the world including, without limitation, the Korea Exchange in Korea. Furthermore, the purchaser of the shares shall comply with all applicable regulatory requirements (including but not limited to requirements under the FETL) in connection with the purchase of the shares. By the purchase of the shares, the relevant holder thereof will be deemed to represent and warrant that if it is in Korea or is a resident of Korea, it purchased the shares pursuant to the applicable laws and regulations of Korea.

Notice to prospective investors in Taiwan

The shares have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the shares in Taiwan.

Notice to prospective investors in South Africa

Due to restrictions under the securities laws of South Africa, no “offer to the public” (as such term is defined in the South African Companies Act, No. 71 of 2008 (as amended or re-enacted), or the South African Companies Act, is being made in connection with the issue of the shares in South Africa. Accordingly, this document does not, nor is it intended to, constitute a “registered prospectus” (as that term is defined in the South African Companies Act) prepared and registered under the South African Companies Act and has not been approved by, and/or filed with, the South African Companies and Intellectual Property Commission or any other regulatory authority in South Africa. The shares are not offered, and the offer shall not be transferred, sold, renounced or delivered, in South Africa or to

a person with an address in South Africa, unless one or other of the following exemptions stipulated in section 96 (1) applies:

- Section 96 (1) (a) the offer, transfer, sale, renunciation or delivery is to:
- (i) persons whose ordinary business, or part of whose ordinary business, is to deal in securities, as principal or agent;
 - (ii) the South African Public Investment Corporation;
 - (iii) persons or entities regulated by the Reserve Bank of South Africa;
 - (iv) authorized financial service providers under South African law;
 - (v) financial institutions recognized as such under South African law;
 - (vi) a wholly-owned subsidiary of any person or entity contemplated in (c), (d) or (e), acting as agent in the capacity of an authorized portfolio manager for a pension fund, or as manager for a collective investment scheme (in each case duly registered as such under South African law); or
 - (vii) any combination of the person in (i) to (vi); or
- Section 96 (1) (b) the total contemplated acquisition cost of the securities, for any single addressee acting as principal is equal to or greater than ZAR1,000,000 or such higher amount as may be promulgated by notice in the Government Gazette of South Africa pursuant to section 96(2)(a) of the South African Companies Act.

Information made available in this prospectus should not be considered as “advice” as defined in the South African Financial Advisory and Intermediary Services Act, 2002.

Notice to prospective investors in Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus is being distributed only to, and is directed only at, and any offer of the shares of common stock is directed only at, (i) a limited number of persons in accordance with the Israeli Securities Law and (ii) investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and “qualified individuals,” each as defined in the Addendum (as it may be amended from time to time), collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

LEGAL MATTERS

Cooley LLP, Palo Alto, California, will pass upon the validity of the shares of common stock being offered by this prospectus. Davis Polk & Wardwell LLP, Menlo Park, California is representing the underwriters.

EXPERTS

The financial statements as of December 31, 2020 and 2019 and for each of the two years in the period ended December 31, 2020 included in this Prospectus have been so included in reliance on the report (which contains an explanatory paragraph relating to the Company's ability to continue as a going concern as described in Note 1 to the financial statements) of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1, including exhibits and schedules, under the Securities Act, with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the common stock offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference. You can read our SEC filings, including the registration statement, over the Internet at the SEC's website at www.sec.gov.

Upon the closing of this offering, we will be subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for inspection at the web site of the SEC referred to above. We also maintain a website at www.neuropace.com, at which, following the closing of this offering, you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. However, the information contained in or accessible through our website is not part of this prospectus or the registration statement of which this prospectus forms a part, and investors should not rely on such information in making a decision to purchase our common stock in this offering. We have included our website address in this prospectus solely as an inactive textual reference.

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of NeuroPace, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of NeuroPace, Inc. (the “Company”) as of December 31, 2020 and 2019, and the related statements of operations and comprehensive loss, of redeemable convertible preferred stock and stockholders’ deficit, and of cash flows for the years then ended, including the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Substantial Doubt About the Company’s Ability to Continue as a Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has incurred operating losses and negative cash flows from operations since inception that raise substantial doubt about its ability to continue as a going concern. Management’s plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

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

We conducted our audits of these financial statements 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 financial statements are free of material misstatement, whether due to error or fraud.

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

/s/ PricewaterhouseCoopers LLP

San Jose, California

March 24, 2021, except for the effects of the reverse stock split discussed in Note 2 to the financial statements, as to which the date is April 14, 2021

We have served as the Company’s auditor since 2003.

NeuroPace, Inc.
Balance Sheets

(in thousands, except share and per share amounts)	December 31,	
	2019	2020
Assets		
Current assets		
Cash and cash equivalents	\$ 4,123	\$ 26,390
Short-term investments	969	11,689
Accounts receivable	6,017	8,395
Inventory	7,900	6,909
Prepaid expenses and other current assets	1,251	1,179
Total current assets	20,260	54,562
Property and equipment, net	810	515
Restricted cash	—	366
Deferred offering costs	—	484
Other assets	25	23
Total assets	\$ 21,095	\$ 55,950
Liabilities and Stockholders' Deficit		
Current liabilities		
Accounts payable	\$ 903	\$ 949
Accrued liabilities	6,727	6,603
Short-term debt	44,162	2,043
Short-term convertible notes (includes \$15,686 as of December 31, 2019 due to related parties)	18,637	—
Derivative instrument	4,719	—
Total current liabilities	75,148	9,595
Deferred rent, noncurrent	1,703	1,301
Long-term debt	—	50,821
Redeemable convertible preferred stock warrant liability	—	369
Other liabilities	26	274
Total liabilities	76,877	62,360
Commitments and contingencies (Note 5)		
Redeemable convertible preferred stock, \$0.001 par value - 180,000,000 and 60,757,386 shares authorized as of December 31, 2019 and December 31, 2020, respectively; 635,048 and 16,614,178 shares issued and outstanding as of December 31, 2019 and December 31, 2020, respectively (Liquidation value \$73,890 and \$227,755 as of December 31, 2019 and December 31, 2020, respectively)	73,568	141,422
Stockholders' deficit		
Common stock, \$0.001 par value - 300,000,000 and 74,636,348 shares authorized as of December 31, 2019 and December 31, 2020, respectively; 202,121 and 314,096 shares issued and outstanding as of December 31, 2019 and December 31, 2020, respectively	—	—
Additional paid-in-capital	234,290	239,826
Accumulated other comprehensive income	1	33
Accumulated deficit	(363,641)	(387,691)
Total stockholders' deficit	(129,350)	(147,832)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	\$ 21,095	\$ 55,950

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

NeuroPace, Inc.
Statements of Operations and Comprehensive Loss

<i>(in thousands, except share and per share amounts)</i>	Year Ended December 31,	
	2019	2020
Revenue	\$ 36,972	\$ 41,138
Cost of goods sold	10,508	10,866
Gross profit	26,464	30,272
Operating expenses		
Research and development	18,294	15,695
Selling, general and administrative	30,201	27,628
Total operating expenses	48,495	43,323
Loss from operations	(22,031)	(13,051)
Interest income	261	41
Interest expense (includes \$900 and \$1,258 to related parties in the years 2019 and 2020, respectively)	(9,485)	(11,486)
Other income (expense), net	1,282	218
Net loss	\$ (29,973)	\$ (24,278)
Unrealized gain on available-for-sale debt securities	28	32
Comprehensive loss	\$ (29,945)	\$ (24,246)
Net loss per share attributable to common stockholders, basic and diluted	\$ (148.44)	\$ (117.85)
Weighted-average shares used in computing net loss per share attributable to common stockholders, basic and diluted	201,925	204,068

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

NeuroPace, Inc.
Statements of Redeemable Convertible Preferred Stock and Stockholders' Deficit

<i>(in thousands, except share amounts)</i>	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balances as of January 1, 2019	635,048	\$ 73,568	201,406	\$ —	\$ 232,787	\$ (27)	\$ (333,668)	\$ (100,9
Net loss	—	—	—	—	—	—	(29,973)	(29,9
Unrealized gain on available-for-sale debt securities	—	—	—	—	—	28	—	—
Issuance of common stock pursuant to stock option exercises	—	—	715	—	42	—	—	—
Change in early exercise liability	—	—	—	—	19	—	—	—
Stock-based compensation	—	—	—	—	1,442	—	—	1,4
Balances as of December 31, 2019	635,048	\$ 73,568	202,121	\$ —	\$ 234,290	\$ 1	\$ (363,641)	\$ (129,3
Net loss	—	\$ —	—	\$ —	—	\$ —	\$ (24,278)	\$ (24,2
Net change in unrealized loss on available-for-sale debt securities	—	—	—	—	—	32	—	—
Issuance of Series B' redeemable convertible preferred stock, net of issuance costs of \$1,304	7,599,720	31,696	—	—	—	—	—	—
Issuance of common stock pursuant to stock option exercises	—	—	112,049	—	11	—	—	—
Conversion of convertible notes into Series B' redeemable convertible preferred stock	8,379,410	36,386	—	—	4,148	—	—	4,1
Reduction of Series A' redeemable convertible preferred stock liquidation value	—	(228)	—	—	—	—	228	2
Repurchase of common stock	—	—	(74)	—	—	—	—	—
Change in early exercise liability	—	—	—	—	(2)	—	—	—
Stock-based compensation	—	—	—	—	1,379	—	—	1,3
Balances at December 31, 2020	16,614,178	\$ 141,422	314,096	\$ —	\$ 239,826	\$ 33	\$ (387,691)	\$ (147,8

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

NeuroPace, Inc.
Statements of Cash Flows

(in thousands)	Year Ended December 31,	
	2019	2020
Cash flows from operating activities		
Net loss	\$ (29,973)	\$ (24,278)
Adjustments to reconcile net loss to net cash used in operating activities		
Stock-based compensation expense	1,442	1,379
Depreciation	421	312
Amortization of debt discount and issuance costs	2,441	3,492
Non-cash interest expense	1,578	3,447
PIK interest paid on repayment of term loan	—	(4,081)
Inventory write-downs	355	320
Realized (gain) loss from sale of short-term investments	(21)	15
Change in fair value of redeemable convertible preferred stock warrant liability	—	(181)
Change in fair value of derivative instrument	(1,278)	(149)
Loss on extinguishment of convertible notes	—	182
Changes in operating assets and liabilities		
Accounts receivable	(750)	(2,378)
Inventory	(1,638)	672
Prepaid expenses and other assets	(497)	120
Accounts payable	(82)	(5)
Accrued liabilities	2,278	(712)
Other liabilities	—	248
Deferred rent	698	(12)
Net cash (used in) operating activities	(25,026)	(21,609)
Cash flows from investing activities		
Acquisition of property and equipment	(468)	(62)
Proceeds from sale of short-term investments	22,100	6,300
Proceeds from sale of property and equipment	4	—
Purchase of short-term investments	(18,018)	(17,005)
Net cash provided by (used in) investing activities	3,618	(10,767)
Cash flows from financing activities		
Issuance of common stock pursuant to stock option exercises	42	11
Proceeds from debt	—	54,047
Payment of debt issuance costs	—	(950)
Proceeds from issuance of redeemable convertible preferred stock, net of issuance costs	—	31,696
Payment of deferred offering costs	—	(210)
Repayment of debt	—	(42,120)
Issuance of convertible notes, net of issuance costs (includes \$17,963 and \$11,867 from related parties in the years 2019 and 2020, respectively)	21,328	12,535
Net cash provided by financing activities	21,370	55,009
Net (decrease) increase in cash and cash equivalents	(38)	22,633
Cash, cash equivalents and restricted cash		
Beginning of year	4,161	4,123
End of year	\$ 4,123	\$ 26,756

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

NeuroPace, Inc.
Statements of Cash Flows

Reconciliation of cash, cash equivalents and restricted cash to balance sheets:			
Cash and cash equivalents	\$	4,123	\$ 26,390
Restricted cash		—	366
Cash, cash equivalents and restricted cash in balance sheets	\$	4,123	\$ 26,756
Supplemental disclosure of cash flow information:			
Cash paid for interest	\$	5,416	\$ 4,411
Supplemental disclosures of non-cash investing and financing information:			
Net change in accrued liabilities from early exercise of options	\$	(19)	\$ 2
Conversion of convertible notes and accrued interest into preferred stock	\$	—	\$ 34,113
Extinguishment of derivative liability	\$	—	\$ 6,239
Issuance of redeemable convertible preferred stock warrants in connection with the New Term Loan	\$	—	\$ 550
Unpaid deferred offering costs included in accounts payable and accrued liabilities	\$	—	\$ 274

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

NeuroPace, Inc.

Notes to Financial Statements

1. The Company

NeuroPace, Inc., or the Company, was incorporated in the state of Delaware on November 19, 1997. The Company is a commercial-stage medical device company that has developed the RNS System, a brain-responsive neuromodulation system designed for treating medically refractory focal epilepsy by delivering personalized, real-time treatment at the seizure source. The Company began commercializing its products in the United States in 2014.

Liquidity and Capital Resources

The Company has incurred operating losses and negative cash flows from operations since its inception. For the years ended December 31, 2019 and December 31, 2020, net loss was \$30.0 million and \$24.3 million and cash used in operations was \$25.0 million and \$21.6 million, respectively. As of December 31, 2020, accumulated deficit was \$387.7 million and cash, cash equivalents and short-term investments was \$38.1 million. To date, the Company has funded its operations principally through the sales of its products, issuance of redeemable convertible preferred stock and debt financing. The Company expects to incur significant operating expenses as it continues to expand product sales and develop and commercialize new products. The Company believes that its operating losses and negative cash flows will continue into the foreseeable future. There can be no assurance that the Company's products will generate sufficient revenue for the Company to achieve profitable operations.

Based on its current operating plan, which was updated in January 2021 to reflect the Company's plans to increase the level of operating expenditures to accelerate hiring, clinical studies and research and development projects, the Company's cash, cash equivalents and short-term investments of \$38.1 million as of December 31, 2020, will not be sufficient for the Company to continue as a going concern for at least one year from the date of the issuance of these financial statements. The Company believes that this raises substantial doubt about its ability to continue as a going concern. As a result, the Company will be required to raise additional capital. The Company is seeking to complete an initial public offering, or the IPO, of its common stock. In the event the Company does not complete an IPO, the Company would expect to obtain additional funding through additional sale and issuance of its Series B' redeemable convertible preferred stock pursuant to commitments made by investors in the initial close of the Series B' financing; however, such funding is not guaranteed. If the amount of revenue from the sale of the Company's products is not sufficient or if sufficient funds on acceptable terms are not available when needed, the Company may be required to curtail planned activities to significantly reduce its operating expenses. Failure to manage discretionary spending or raise additional financing, as needed, may adversely impact the Company's ability to achieve its intended business objectives and have an adverse effect on its results of operations and future prospects.

In connection with the New Term Loan described in Note 6, the Company will need to be in compliance with a minimum annual net revenue covenant determined in accordance with generally accepted accounting principles beginning in the year ended December 31, 2021 of \$43.0 million and maintain a minimum cash and cash equivalents balance of \$3.0 million prior to the completion of the IPO and \$5.0 million after the completion of the IPO. If the Company cannot generate sufficient revenue in the future, the Company may not be in compliance with the annual net revenue covenant and the lender may call the debt resulting in the Company immediately needing additional funds.

The COVID-19 pandemic and the resulting economic downturn are affecting business conditions in the industry in which the Company operates. Beginning in March 2020, the Company's net sales were negatively impacted by the COVID-19 pandemic as hospitals delayed or canceled elective procedures. In response to the pandemic, many state and local governments in the U.S. issued orders that temporarily precluded elective procedures in order to conserve scarce health system resources. The decrease in hospital admission rates and elective surgeries reduced demand for elective procedures using the Company's RNS System. The Company has taken necessary precautions to safeguard its employees, patients, customers, and other stakeholders from the COVID-19 pandemic, while maintaining business continuity to support its patients, customers and employees. The timing, extent and continuation of any increase in procedures, and any corresponding increase in sales of the Company's products, and whether there could be a future decrease in the current level of procedures as a result of the COVID-19 pandemic or otherwise, remain uncertain and are subject to a variety of factors.

NeuroPace, Inc.

Notes to Financial Statements

2. Summary of Significant Accounting Policies

Basis of Presentation

The financial statements have been prepared in conformity with generally accepted accounting principles in the United States, or GAAP, as defined by the Financial Accounting Standards Board, or the FASB.

Reverse Stock Split

On August 18, 2020, the Company effected a 1-for-100 reverse stock split of its common stock and redeemable convertible preferred stock. Upon the effectiveness of the reverse stock split, all issued and outstanding shares of common stock and redeemable convertible preferred stock and related per share amounts contained in the accompanying financial statements were retroactively revised to reflect this reverse stock split for all periods presented. The par value of the authorized stock was not adjusted as a result of the reverse stock split.

On April 9, 2021, the Company effected a 1-for-2.6 reverse stock split of its common stock and redeemable convertible preferred stock. Upon the effectiveness of the reverse stock split, all issued and outstanding shares of common stock and redeemable convertible preferred stock and related per share amounts contained in the accompanying financial statements were retroactively revised to reflect this reverse stock split for all periods presented. The par value of the authorized stock was not adjusted as a result of the reverse stock split.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires the Company to make estimates and assumptions that affect the amounts and disclosures reported in the financial statements. The Company uses significant judgment when making estimates related to the valuation of its common stock and related stock-based compensation, the valuation of deferred tax assets and related valuation allowances, provision for excess and obsolete inventories, the valuation of derivative financial instruments and redeemable convertible preferred stock warrant liability. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may ultimately materially differ from these estimates and assumptions.

Segment and Geographical Information

The Company operates and manages its business as one reportable and operating segment. The Company's chief executive officer, who is the chief operating decision maker, reviews financial information on an aggregate basis for purposes of allocating resources and evaluating financial performance. All of the Company's long-lived assets, comprised of property and equipment, are based in the United States. All of the Company's revenue was in the United States for the years ended December 31, 2019 and December 31, 2020, based on the shipping location of the external customer.

Revenue Recognition

The Company derives substantially all its revenue from sales of RNS Systems to hospitals facilities (typically comprehensive epilepsy centers, or Level 4 CECs) that implant its products.

On January 1, 2019, the Company adopted Accounting Standards Codification, or ASC, Topic 606, "*Revenue from Contracts with Customers*," using the modified retrospective method. Under ASC 606, revenue is recognized when a customer obtains control of promised goods or services, in an amount that reflects the consideration which the entity expects to receive in exchange for those goods or services. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the Company performs the following five steps:

- i. identify the contract(s) with a customer;

NeuroPace, Inc.
Notes to Financial Statements

- ii. identify the performance obligations in the contract;
- iii. determine the transaction price;
- iv. allocate the transaction price to the performance obligations in the contract; and
- v. recognize revenue when (or as) the entity satisfies a performance obligation.

A contract with a customer exists when (i) the Company enters into a legally enforceable contract with a customer that defines each party's rights regarding the products or services to be transferred and identifies the payment terms related to these products or services, (ii) the contract has commercial substance, and (iii) the Company determines that collection of substantially all consideration for products or services that are transferred is probable based on the customer's intent and ability to pay the promised consideration.

At contract inception, the Company assesses the products or services promised within each contract and determine those that are performance obligations and assesses whether each promised product or service is distinct. The Company's contracts with customers often include a promise to transfer products, as well as an implied promise to provide a service to the customer, which is access to the Company's Patient Data Management System, or PDMS. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. The Company evaluates each product or service promised in a contract to determine whether it represents a distinct performance obligation. A performance obligation is distinct if (i) the customer can benefit from the product or service on its own or with other resources that are readily available to the customer, and (ii) the product or service is separately identifiable from other promises in the contract.

The RNS System is a compilation of the Company's products that includes its RNS neurostimulator, its cortical strip leads and depth leads, and its Patient Remote Monitor, as well as other implantable and non-implantable accessories. In addition, the Company's products also include external components such as its Physician Tablet, which is used by clinicians to retrieve and review information from and program the implanted devices, as well as access to the Company's PDMS, a secure online database that collects data transmitted from the Patient Remote Monitor and Physician Tablet. The Company has determined that its RNS System and Physician Tablet are not capable of being distinct as they are not sold separately, the customer cannot benefit from the products individually, and there are no other resources readily available to the customer. The products are highly interdependent and the Company is not able to fulfill each promise in the contract independently of the others. Therefore, the Company has concluded that the RNS System and the Physician Tablet represent a single performance obligation. The Company has determined that access to the PDMS is capable of being distinct because clinicians can utilize it with other components of the RNS System that are readily available, and it is separately identifiable from other promises in the contract. Therefore, the Company has concluded that access to the PDMS represents a separate performance obligation. In addition, training services generally occur prior to entering into a contract with the customer and therefore the training services are not considered to be a separate performance obligation.

The Company determines the transaction price based on the amount it expects to be entitled to in exchange for transferring the promised product to the customer, which is based on the invoiced price for the products. All prices are at fixed amounts per the sales agreement with the customer and there are no discounts, rebates or other price concessions or a right of return.

When a contract contains multiple performance obligations, the Company allocates the transaction price to each performance obligation based on its relative standalone selling price. Standalone selling prices are based on observable prices at which the Company separately sells its products or services. If a standalone selling price is not directly observable, the Company estimates the standalone selling price considering market data, cost, gross margin, and other available information.

The Company delivers its products to a hospital on the date of the scheduled procedure. There is no commitment or contract until the delivery of the product and the procedure may be canceled at any time. Once the device has been implanted in or otherwise provided to a patient, the customer is considered to have accepted the delivery (i.e., has approved the contract) and both parties are committed to perform their respective obligations.

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Assuming all other revenue recognition criteria are met, the Company recognizes revenue from the sale of its products at a point in time when the procedure is completed and the device is implanted in a patient. The Company recognizes service revenue related to the PDMS on a ratable basis over the period in which the Company expects to provide access to clinicians. The Company has concluded that the service revenue is immaterial.

The Company recognizes revenue for arrangements where it has satisfied its performance obligations but has not issued invoices. These amounts are recorded as unbilled receivables, which are included in accounts receivable on the balance sheet, as the Company has an unconditional right to payment at the end of the applicable period.

Payment terms are typically 30 days from the fulfillment of the orders and fall within the one-year guidance for the practical expedient which allows the Company to forgo adjustment of the promised amount of consideration for the effects of a significant financing component. Sales taxes that are collected from customers and remitted to governmental authorities are accounted for on a net basis and therefore are excluded from net sales, however, most of its sales are tax exempt. The Company believes that collection is probable as it has no history of uncollectible accounts and the customers are large, creditworthy institutions.

As allowed under the practical expedient, the Company does not disclose the value of unsatisfied performance obligations for contracts with an original expected length of one year or less. Costs associated with product sales include commissions, where the Company applies the practical expedient and recognizes commissions as expense when incurred because the expense is incurred over a period of time of less than one year. Commissions are reported in selling, general and administrative expense in the statements of operations and comprehensive loss.

The Company's only contract balances were accounts receivable of \$6.0 million and \$8.4 million as of December 31, 2019 and December 31, 2020, respectively.

Fair Value of Financial Instruments

Carrying amounts of certain of the Company's financial instruments, including cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximate fair value because of the short-term nature of these instruments. Short-term investments are comprised of available-for-sale debt securities, which are carried at fair value. The Company believes that its borrowings bear interest at the prevailing market rates for instruments with similar characteristics; accordingly, the carrying value of this instrument approximates its fair value. Derivative instruments and the redeemable convertible preferred stock warrant liability are carried at fair value based on unobservable market inputs. The Company determines the fair value of financial and non-financial assets and liabilities using the fair value hierarchy which establishes three level of inputs that may be used to measure fair value (see Note 3).

Cash and Cash Equivalents

The Company considers all highly liquid investments with original maturities of three months or less at the time of purchase to be cash equivalents. Cash equivalents that are available-for-sale marketable debt securities are recorded at fair value, based on quoted market prices. As of December 31, 2019 and December 31, 2020, the Company's cash equivalents are entirely comprised of investments in money market funds.

Restricted Cash

Restricted cash is comprised of cash that is restricted as to withdrawal or use under the terms of certain contractual agreements. Restricted cash for the year ended December 31, 2020 consists of collateral for the letter of credit issued during the year in connection with the Company's facility lease (see Note 5).

Concentration of Credit Risk, and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to credit risk consist of cash and cash equivalents, short-term investments and accounts receivable to the extent of the amounts recorded on the balance sheet. The Company's cash is invested in one major financial institution in the United States. Deposits in this financial institution may exceed federally insured limits. The Company's cash equivalents are invested in money market funds.

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The Company's accounts receivable are due from a variety of health care organizations in the United States. For the years ended December 31, 2019 and December 31, 2020, there were no customers that represented 10% or more of revenue. As of December 31, 2019 and December 31, 2020, no customer represented 10% or more of the Company's accounts receivable.

The Company is subject to certain risks, including that its devices may not be approved or cleared for marketing by governmental authorities or be successfully marketed for expanded indications. There can be no assurance that the Company's products will achieve widespread adoption in the marketplace, nor can there be any assurance that existing devices or any future devices can be developed or manufactured at an acceptable cost and with appropriate performance characteristics. The Company is also subject to risks common to companies in the medical device industry, including, but not limited to, new technological innovations, dependence upon third-party payors to provide adequate coverage and reimbursement, dependence on key personnel, single-source suppliers and vendors in connection with the manufacture of its products, concentration of Level 4 CECs, obtaining, maintaining, protecting, enforcing, and defending intellectual property rights and proprietary technology, product liability claims, and compliance with government regulations.

The Company's medical devices require approvals or clearances from the U.S. Food and Drug Administration, or the FDA, or international regulatory agencies. In addition, in order to continue the Company's operations, compliance with various federal and state laws is required. If approvals or clearances were withdrawn by the FDA for the Company's current products or if such approvals or clearances were denied or delayed for future products or expanded indications for use, it would have a material adverse impact on the Company.

Accounts Receivable

Accounts receivable are recorded at the invoiced amount and do not bear interest. The Company regularly reviews accounts for collectability and establishes an allowance for probable credit losses and writes off uncollectible accounts as necessary. The Company determined that no reserve was required as of December 31, 2019 and December 31, 2020. To date, the Company has not experienced any credit-related losses.

Inventories

Inventories are valued at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method for all inventories. Net realizable value is determined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. The Company regularly reviews inventory quantities in consideration of actual loss experiences, projected future demand, and remaining shelf life to record a provision for excess and obsolete inventory when appropriate. The Company's policy is to write down inventory that has become obsolete, inventory that has a cost basis in excess of its expected lower of cost or net realizable value, and inventory in excess of expected requirements. The estimate of excess quantities is judgmental and primarily dependent on the Company's estimates of future demand for a particular product. If the estimate of future demand is too high, the Company may have to increase the reserve for excess inventory for that product and record a charge to the cost of goods sold.

Property and Equipment, net

Property and equipment, net is stated at cost less accumulated depreciation. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets, generally three to five years. Leasehold improvements are amortized using the straight-line method over the shorter of the assets' estimated useful lives or the remaining term of the lease. When assets are retired or otherwise disposed of, the cost and accumulated depreciation are removed from the balance sheet, and any resulting gain or loss is reflected in operations in the period realized. Maintenance and repairs are charged to operations as incurred.

Impairment of Long-Lived Assets

The Company reviews long-lived assets, including property and equipment, for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If indicators of impairment exist, an impairment loss would be recognized when estimated undiscounted future cash flows expected

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to result from the use of the assets and their eventual disposition are less than their carrying amount. Impairment, if any, is measured as the amount by which the carrying amount of the long-lived assets exceeds their fair value. The Company did not record any impairment of long-lived assets for the years ended December 31, 2019 and December 31, 2020.

Leases

The Company accounts for leases in accordance with ASC Topic 840, *Leases*. The Company leases its facilities and meets the requirements to account for these leases as operating leases.

For facility leases that contain rent escalations or rent concession provisions, the Company records its lease expense during the lease term on a straight line basis over the term of the lease. The Company records differences between the rent paid and the straight-line rent as a deferred rent liability. Leasehold improvements funded by landlord incentives or allowances are recorded as leasehold improvement assets and a corresponding deferred rent liability. The leasehold improvement asset is amortized over the lesser of the term of the lease or life of the asset. The deferred rent liability is amortized on a straight-line basis as a reduction to rent expense over the term of the lease agreement.

Deferred Offering Costs

The Company capitalizes, within other assets, certain legal, accounting and other third-party fees that are directly related to the Company's in-process equity financings, including its planned initial public offering, until such financings are consummated. After consummation of the equity financing, these costs are recorded as a reduction of the proceeds received as a result of the offering. Should a planned equity financing be abandoned, terminated or significantly delayed, the deferred offering costs are immediately written off to operating expenses. There were no deferred offering costs capitalized as of December 31, 2019. As of December 31, 2020, \$0.5 million of deferred offering costs were recorded on the balance sheet.

Derivative Instruments

The Company issued convertible notes in March 2019 and September 2019, or the 2019 Convertible Notes, and in January 2020 and March 2020, or the 2020 Convertible Notes, which contain embedded features that provide the lenders with multiple settlement alternatives. Certain of these settlement features provide the lenders the right to receive cash or a variable number of shares upon the completion of a capital raising transaction, change of control or default by the Company, which are referred to as the "redemption features."

The redemption features of the convertible notes meet the requirements for separate accounting and are accounted for as a single derivative instrument. The derivative instrument was recorded at fair value at inception and is subject to remeasurement to fair value at each balance sheet date, with any changes in fair value recognized in the statements of operations and comprehensive loss (see Note 3 and Note 6).

Upon the issuance of Series B' redeemable convertible preferred stock, the fair value of the derivative instrument was recognized in additional paid-in capital in the statements of redeemable convertible preferred stock and stockholders' deficit and the derivative instrument was extinguished (see Note 3).

Warranty

Warranty costs are accrued based on the Company's best estimates when management determines that it is probable a charge or liability has been incurred and the amount of loss can be reasonably estimated. While the Company believes that historical experience provides a reliable basis for estimating such warranty cost, unforeseen quality issues or component failure rates could result in future costs in excess of such estimates. The warranty liability as of December 31, 2019 and December 31, 2020 was immaterial.

Redeemable Convertible Preferred Stock

The Company records all shares of redeemable convertible preferred stock at their respective fair values on the dates of issuance, net of issuance costs. Redeemable convertible preferred stock is recorded outside of permanent

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equity because while it is not mandatorily redeemable, in certain events considered not solely within the Company's control, such as a merger, acquisition, or sale of all or substantially all of the Company's assets, each referred to as a "deemed liquidation event," the redeemable convertible preferred stock will become redeemable at the option of the holders of at least a majority of the then outstanding preferred shares. The Company has not adjusted the carrying value of the redeemable convertible preferred stock to its liquidation preference because a deemed liquidation event obligating the Company to pay the liquidation preference to holders of shares of redeemable convertible preferred stock is not probable of occurring. Subsequent adjustments to the carrying values to the liquidation preference will be made only if it becomes probable that such a deemed liquidation event will occur.

Redeemable Convertible Preferred Stock Warrants

The Company's redeemable convertible preferred stock warrants require liability classification and accounting as the underlying redeemable convertible preferred stock is considered contingently redeemable and may obligate the Company to transfer assets to the holders at a future date upon occurrence of a deemed liquidation event. The warrants are recorded at fair value upon issuance and are subject to remeasurement to fair value at each balance sheet date, with any changes in fair value recognized in other income (expense), net in the statements of operations and comprehensive loss. The Company will continue to adjust the warrant liability for changes in fair value until the earlier of the exercise or expiration of the redeemable convertible preferred stock warrants, the occurrence of a deemed liquidation event or the conversion of redeemable convertible preferred stock into common stock.

Cost of Goods Sold

The Company manufactures its products at its facility. Cost of goods sold consists primarily of costs related to materials, components and subassemblies, manufacturing overhead, direct labor, and reserves for excess and obsolete inventories. A significant portion of the Company's cost of goods sold currently consists of manufacturing overhead costs. These overhead costs include the cost of facilities, material procurement, inventory control, quality assurance, equipment and operating supervision and management. Cost of goods sold also includes depreciation expense for production equipment and certain direct costs such as shipping costs and royalties. Shipping and handling costs are considered a fulfillment activity and are included in cost of goods sold as incurred.

The Company is obligated to pay a royalty of 1% of net sales for specified products under the terms of a cross-license agreement, subject to an aggregate cap of \$100 million. The Company recorded royalty expenses of \$0.4 million for both the years ended December 31, 2019 and December 31, 2020.

Research and Development Expenditures

The Company expenses research and development costs as incurred. Research and development expenses consist primarily of engineering, product development, clinical studies to develop and support the Company's products, regulatory expenses, medical affairs and other costs associated with products and technologies that are in development, including quality assurance. Research and development expenses include employee compensation, including stock-based compensation, supplies, consulting, prototyping, testing, materials, travel expenses, depreciation and an allocation of facility overhead expenses. Additionally, research and development expenses include costs associated with clinical studies including clinical trial design, clinical site reimbursement, data management, travel expenses, the cost of products used for clinical trials and costs associated with regulatory compliance and submitting and maintaining regulatory filings.

Advertising Costs

The Company expenses advertising costs as incurred. Advertising costs include design and production costs, including website development, physician and patient testimonial videos, written media campaigns, and other items. Advertising costs of \$0.1 million were expensed during both the years ended December 31, 2019 and December 31, 2020.

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Stock-Based Compensation

The Company accounts for stock-based employee compensation in accordance with ASC 718, *Stock Compensation*. ASC 718 requires the measurement of compensation on the date of grant based on the fair value of the stock option (see Note 10). The Company amortizes the fair value of each option on a straight-line basis over the requisite service period of each award.

Income Taxes

The Company accounts for income taxes under the liability method. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

The Company assesses all material positions taken in any income tax return, including all significant uncertain positions, in all tax years that are still subject to assessment or challenge by relevant taxing authorities. Assessing an uncertain tax position begins with the initial determination of the position's sustainability and is measured at the largest amount of benefit that is greater than 50 percent likely of being realized upon ultimate settlement. As of each balance sheet date, unresolved uncertain tax positions must be reassessed, and the Company will determine whether (i) the factors underlying the sustainability assertion have changed and (ii) the amount of the recognized tax benefit is still appropriate. The recognition and measurement of tax benefits requires significant judgment. Judgments concerning the recognition and measurement of a tax benefit might change as new information becomes available.

Net Loss per Share Attributable to Common Stockholders

Basic net loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, redeemable convertible preferred stock, stock options, common stock subject to repurchase related to early exercise of stock options, and convertible notes are considered to be potentially dilutive securities. Basic and diluted net loss attributable to common stockholders per share is presented in conformity with the two-class method required for participating securities, as the redeemable convertible preferred stock is considered a participating security because it participates in dividends with common stock. The Company also considers the shares issued upon the early exercise of stock options subject to repurchase to be participating securities, because holders of such shares have non-forfeitable dividend rights in the event a dividend is paid on common stock. The holders of redeemable convertible preferred stock and the holders of the shares issued upon early exercise of stock options subject to repurchase do not have a contractual obligation to share in the Company's losses. As such, the net loss was attributed entirely to common stockholders. Because the Company has reported a net loss for all periods presented, diluted net loss per common share is the same as basic net loss per common share for those periods.

Comprehensive Loss

Comprehensive loss combines net loss and other comprehensive loss. Other comprehensive loss represents unrealized gains or losses on short-term investments that are reported as a component of stockholders' deficit on the balance sheet.

JOBS Act Accounting Election

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. The Company has elected to use this extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date

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the Company (i) is no longer an emerging growth company or (ii) affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. As a result, these financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820), Disclosure Framework- Changes to the Disclosure Requirements for Fair Value Measurement*. This ASU amends the disclosure requirement in ASC 820, Fair Value Measurement, by adding, changing, or removing certain disclosures. It applies to all entities that are required under this guidance to provide disclosure about recurring or nonrecurring fair value measurements. This ASU is effective for all entities for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years. Early adoption is permitted. The Company adopted this ASU effective January 1, 2020. The adoption of this ASU did not have a material effect on the Company's financial statements and related disclosures.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740)—Simplifying the Accounting for Income Taxes*, which simplifies various aspects related to the accounting for income taxes. This ASU removes exceptions to the general principles in Topic 740 related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. For public companies, this ASU is effective for interim and annual reporting periods beginning after December 15, 2020. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022. Early adoption is permitted. The Company early adopted this ASU effective January 1, 2020. The adoption of this ASU did not have a material effect on the Company's financial statements and related disclosures.

Recent Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU No. 2016-02 (Topic 842), *Leases*. ASU 2016-02 requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. This ASU provides a lessee with an option to not account for leases with a term of 12 month or less as leases in the scope of this ASU. This ASU will also require new qualitative and quantitative disclosures to help investors and other financial statement users better understand the amount, timing, and uncertainty of cash flows arising from leases. This ASU should be applied through a modified retrospective transition approach for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements. In July 2018, the FASB issued ASU No. 2018-11, *Leases (Topic 842): Targeted Improvements*, which allows entities to elect an optional transition method where entities may continue to apply the existing lease guidance during the comparative periods and apply the new lease requirements through a cumulative effect adjustment in the period of adoption rather than in the earliest period presented. In June 2020, the FASB issued ASU 2020-05, *Revenue from Contracts with Customers (Topic 606) and Leases (Topic 842): Effective Dates for Certain Entities*, which delays the adoption dates for ASU 2016-02 for non-public entities to fiscal years beginning after December 15, 2021, and interim periods within fiscal years beginning after December 15, 2022. Early adoption is allowed. The Company expects to recognize a right-of-use asset and corresponding lease liability for its real estate operating leases upon adoption, expecting to use the modified retrospective approach for the adoption of this ASU.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments- Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, which amends existing guidance on the impairment of financial assets and adds an impairment model that is based on expected losses rather than incurred losses and requires an entity to recognize as an allowance its estimate of expected credit losses for its financial assets. An entity will apply this guidance through a cumulative-effect adjustment to retained earnings upon adoption (a modified-retrospective approach) while a prospective transition approach is required for debt securities for which an other-than-temporary

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impairment had been recognized before the effective date. For public business entities that meet the definition of a Securities and Exchange Commission, or the SEC, filer, excluding entities eligible to be smaller reporting companies as defined by the SEC, adoption is effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. For SEC filers that are eligible to be smaller reporting companies and for all other entities, this ASU is effective for fiscal years beginning after December 15, 2022, and interim periods within those fiscal years. Early adoption is permitted. The Company is in the process of evaluating the impact of the adoption on its financial statements and related disclosures.

In March 2020, the FASB issued ASU No. 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. The amendments in ASU 2020-04 provide optional expedients and exceptions for applying generally accepted accounting principles to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. The amendments in this ASU are effective for all entities as of March 12, 2020 through December 31, 2022. An entity may elect to apply the amendments for contract modifications by Topic or Industry Subtopic as of any date from the beginning an interim period that includes or is subsequent to March 12, 2020, or prospectively from the date that the financial statements are available to be issued. Once elected for a Topic or an Industry Subtopic, the amendments must be applied prospectively for all eligible contract modifications for that Topic or Industry Subtopic. The Company is currently evaluating the impact of the adoption of this ASU on the Company's financial statements and related disclosures.

In August 2020, the FASB issued ASU 2020-06, *Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*. This ASU simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity. Specifically the ASU removes: i) major separation models required under GAAP and ii) certain settlement conditions that are required for equity contracts to qualify for the derivative scope exception, which will permit more equity contract to qualify for the exception. For public business entities that meet the definition of an SEC filer, excluding entities eligible to be smaller reporting companies as defined by the SEC, this ASU is effective for interim and annual reporting periods beginning after December 15, 2021. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. The Company is currently evaluating the impact of the adoption of this ASU on the Company's financial statements and related disclosures.

3. Fair Value Measurements

The Company measures certain financial assets and liabilities at fair value on a recurring basis. Fair value is an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability. A three-tier fair value hierarchy is established as a basis for considering such assumptions and for inputs used in the valuation methodologies in measuring fair value:

Level 1 Quoted prices in active markets for identical assets or liabilities.

Level 2 Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

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The Company utilizes the market approach to measure fair value for its financial assets and liabilities. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities.

The following table summarizes the Company's financial assets (cash equivalents, marketable securities and liabilities) at fair value as of December 31, 2019 (in thousands):

	Fair Value as of December 31, 2019	Basis for Fair Value Measurements		
		(Level 1)	(Level 2)	(Level 3)
Assets:				
Money market funds, included in cash and cash equivalents	\$ 2,482	\$ 2,482	\$ —	\$ —
Fixed income mutual funds, included in short-term investments	969	969	—	—
Total	\$ 3,451	\$ 3,451	\$ —	\$ —
Liabilities:				
Derivative instrument	4,719	—	—	4,719
Total	\$ 4,719	\$ —	\$ —	\$ 4,719

The following table summarizes the Company's financial assets (cash equivalents, marketable securities and liabilities) at fair value as of December 31, 2020 (in thousands):

	Fair Value as of December 31, 2020	Basis for Fair Value Measurements		
		(Level 1)	(Level 2)	(Level 3)
Assets:				
Money market funds, included in cash and cash equivalents	\$ 5,062	\$ 5,062	\$ —	\$ —
Fixed income mutual funds, included in short-term investments	11,689	11,689	—	—
Total	\$ 16,751	\$ 16,751	\$ —	\$ —
Liabilities:				
Redeemable convertible preferred stock warrant liability	369	—	—	369
Total	\$ 369	\$ —	\$ —	\$ 369

The money market funds are highly liquid and primarily invest in short-term fixed income securities issued by the U.S. government and U.S. government agencies. The Company's available-for-sale investments are comprised

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of short-term investments in fixed income mutual funds, which primarily consist of debt securities issued by the U.S. government and U.S. government agencies and corporate bonds and notes.

The following is a summary of the Company's available-for-sale debt securities (in thousands):

	December 31,	
	2019	2020
Cost basis	\$ 968	\$ 11,656
Unrealized gain	1	33
Fair value	<u>\$ 969</u>	<u>\$ 11,689</u>

The following table sets forth a summary of the changes in the fair value of the Company's Level 3 financial instruments (in thousands):

	Derivative Instrument	Redeemable Conve Preferred Stock Warra Liability
Fair value as of January 1, 2019	\$ —	\$ —
Initial fair value of derivative instrument related to 2019 Convertible Notes	5,997	
Change in fair value included in other income (expense), net	(1,278)	
Fair value as of December 31, 2019	4,719	
Recognition of redeemable convertible preferred stock warrant liability	—	
Recognition of derivative instrument related to 2020 Convertible Notes	1,669	
Change in fair value included in other income (expense), net	(149)	
Extinguishment of derivative instrument	(6,239)	
Fair value as of December 31, 2020	<u>\$ —</u>	<u>\$ —</u>

The fair value of the derivative instrument has been estimated at the date of inception and at the subsequent balance sheet date using a two-step approach to valuation, employing a probability-weighted scenario valuation method and then comparing the instrument's value with-and-without the derivative features in order to estimate their combined fair value, using unobservable inputs, which are classified as Level 3 within the fair value hierarchy. In order to estimate the fair value of the 2019 Convertible Notes and 2020 Convertible Notes, the Company estimated the future payoff in each scenario, discounted them to a present value and then probability weighted them based upon the Company's best estimate of the likelihood of each event occurring.

The primary inputs for the valuation approach included the probability of achieving various settlement scenarios that provide the lenders the rights or the obligations to receive cash or a variable number of shares upon the completion of a capital transaction. The probability assumptions as of inception dates in 2019 included a 99% probability of conversion into equity in a capital transaction, discount rates of 1.7% - 11.5% were applied, and the expected time to the occurrence of the respective scenarios ranged between 0.5 years and 1.8 years. The probability assumptions as of inception dates in 2020 included a 50% probability of conversion into equity in a capital transaction, discount rates of 0.07% - 12.2% were applied, and the expected time to the occurrence of the respective scenarios ranged between 0.3 years and 0.8 years.

In August 2020, the derivative instrument was extinguished in connection with the issuance of Series B' redeemable convertible preferred stock and conversion of all outstanding convertible notes and accrued unpaid interest into shares of Series B' redeemable convertible preferred stock.

In determining the fair value of the redeemable convertible preferred stock warrant liability, the Company used the Black-Scholes option pricing model to estimate the fair value using unobservable inputs including the expected term, expected volatility, risk-free interest rate and dividend yield (see Note 8).

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4. Balance Sheet Components

Inventory

Inventories consist of the following (in thousands):

	December 31,	
	2019	2020
Raw materials	\$ 2,734	\$
Work-in-process	135	
Finished goods	5,031	
Total	<u>\$ 7,900</u>	<u>\$</u>

Property and Equipment, net

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

	December 31,	
	2019	2020
Machinery, equipment, furniture and fixtures	\$ 3,527	\$ 3,544
Computer equipment and software	2,730	2,730
Leasehold improvements	2,402	2,402
	8,659	8,676
Less: Accumulated depreciation	(7,849)	(8,161)
Property and equipment, net	<u>\$ 810</u>	<u>\$ 515</u>

Depreciation expense for the years ended December 31, 2019 and December 31, 2020 was \$0.4 million and \$0.3 million, respectively.

Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	December 31,	
	2019	2020
Payroll and related expenses	\$ 3,706	\$ 4,565
Inventory-raw materials	1,484	636
Professional fees	764	279
Deferred rent, current	276	666
Clinical trials	129	107
Other	368	350
	<u>\$ 6,727</u>	<u>\$ 6,603</u>

5. Commitments and Contingencies

Facility Lease

In August 2011, the Company entered into a non-cancelable operating lease for combined office and manufacturing facilities in Mountain View, California. The lease was scheduled to expire in April 2019 and was amended in May 2018 to extend it through June 2024. The terms of the facility lease provide for rental payments on a graduated scale; however, rent expense is recognized on a straight-line basis over the lease term. The Company has an option to extend the lease for a period of 5 years, commencing on July 1, 2024 and expiring on June 30, 2029. In conjunction with the original lease agreement, the Company obtained a letter of credit for \$0.9 million in lieu of a security deposit. In May 2019, the letter of credit was amended and reduced to \$0.7 million.

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Rental payments were \$1.2 million per year for the period from May 2018 through April 2019, and range from \$2.9 million to \$3.3 million per year over the extended term of the lease. In April 2020, the Company amended the lease agreement to defer 50.0% of the rental payment for May and June 2020 of \$0.3 million. The deferred rental payments accrue interest at an annual rate of 8.0% starting from October 1, 2020 and will be payable in three equal monthly installments commencing on April 1, 2021.

Rent expense for the years ended December 31, 2019 and December 31, 2020 was \$2.8 million and \$2.7 million, respectively. As of December 31, 2019 and December 31, 2020, \$2.0 million was recorded as deferred rent expense in each year.

The Company's future payments under the non-cancellable operating lease (in thousands) are as follows:

		December 31, 2020
2021	\$	3,379
2022		3,172
2023		3,267
2024		1,666
Remaining		—
Total	\$	11,484

Indemnifications

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and may provide for indemnification of the counterparty. The Company's exposure under these agreements is unknown because it involves claims that may be made against it in the future but have not yet been made. To date, the Company has not been subject to any claims or been required to defend any action related to its indemnification obligations.

The Company indemnifies each of its directors and officers for certain events or occurrences, subject to certain limits, while the director is or was serving at the Company's request in such capacity, as permitted under Delaware law and in accordance with its certificate of incorporation and bylaws. The term of the indemnification period lasts as long as the director or officer may be subject to any proceeding arising out of acts or omissions of such individual in such capacity. The maximum amount of potential future indemnification is unlimited. The Company believes that the fair value of these indemnification obligations is minimal. Accordingly, the Company has not recognized any liabilities relating to these obligations as of December 31, 2019 and December 31, 2020.

Contingencies

From time to time, the Company may have certain contingent liabilities that arise in the ordinary course of business activities. The Company accrues a liability for such matters when it is probable that future expenditures will be made and such expenditures can be reasonably estimated. The Company determined that no accrual was required as of December 31, 2019 and December 31, 2020.

Legal Proceedings

From time to time, the Company may become involved in legal proceedings arising from the ordinary course of its business. The Company may also pursue litigation to assert its legal rights and such litigation may be costly and divert the efforts and attention of its management and technical personnel which could adversely affect its business. The Company is currently not aware of any matters that could have a material adverse effect on the financial position, results of operations or cash flows.

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6. Debt

2014 Term Loan

In November 2014, the Company entered into a Term Loan Agreement, as amended, for total borrowings of up to \$40.0 million with Capital Royalty Partners II L.P. and its affiliates Capital Royalty Partners II – Parallel Fund “A” L.P. and Parallel Investment Opportunities Partners II L.P., or collectively, CRG. As of December 31, 2019, \$40.0 million had been funded under this Term Loan Agreement, or the Term Loan. The Term Loan bore interest at a rate of 12.5% per annum based on a 360-day year and actual days elapsed. Payments under the Term Loan were to be made quarterly with payment dates fixed at the end of each calendar quarter, or the Payment Dates. Through September 30, 2017, the Company had the option to pay interest as follows: 8.0% per annum paid in cash and 4.5% per annum paid-in-kind, or PIK, by increasing the principal of the Term Loan. On each Payment Date through September 30, 2016, the Company elected the PIK option, issuing PIK notes totaling \$2.7 million. On each Payment Date from December 31, 2016 through December 31, 2019, the Company paid all interest due in cash.

The Term Loan was interest-only through September 30, 2019. Following the interest-only period, principal payments were to be made in equal installments at the end of the next four calendar quarters, with the final payment due on September 30, 2020. The Term Loan included a fee upon repayment of the loan equal to 5% of the aggregate principal amount being prepaid or repaid. The Company ratably accreted the fee over the life of the loan.

In connection with the Term Loan, the Company paid total closing fees of \$0.8 million and issued warrants to purchase 219 shares of its Series I redeemable convertible preferred stock at \$1,866.80 per share. The initial fair value of the warrants was \$0.3 million and resulted in a discount to the Term Loan, which was amortized to interest expense over the life of the loan using the effective interest method. Prior to 2019, these warrants were modified to be exercisable for 219 shares of common stock at \$2.60 per share, all of which remain outstanding as of December 31, 2020.

In October 2019, the Term Loan Agreement was amended to extend the interest-only period through December 31, 2019. This amendment was accounted as a debt modification and the impact on the Term Loan’s effective interest rate was a decrease from 15.0% to 14.7%.

In February through June 2020, the Term Loan Agreement was amended to extend the interest-only period through June 30, 2020 and to allow the Company to pay such interest entirely in kind by adding it to the aggregate principal of the loan. The Company paid \$1.4 million in interest due on March 31, 2020 in kind and paid \$1.4 million interest due on June 30, 2020 in cash. The amendments were accounted as a debt modification and the Term Loan’s effective interest rate was changed within 14.7% to 14.2% with each amendment.

The Term Loan was collateralized by substantially all of the Company’s assets. The Term Loan Agreement contained customary representations and warranties, covenants, events of default and termination provisions. The affirmative covenants included, among other things, that the Company achieve minimum annual revenue thresholds and maintain a minimum balance of cash and cash equivalents.

If the Company did not achieve the annual minimum revenue requirement, the Company had the right to cure the event of default six months prior to or within 90 days after the end of the respective calendar year through additional issuance of equity securities or subordinate borrowings in an amount equal to two times the shortfall between the revenue covenant and the actual revenue generated during the year. The minimum cash balance for the year ended December 31, 2019 was \$2.0 million. The minimum annual revenue threshold was \$40.0 million for the year ended December 31, 2019. The Company was in compliance with the Term Loan covenant for the year ended December 31, 2019 as it raised subordinate borrowings in an amount equal to two times the shortfall between the revenue covenant and the actual revenue of \$37.0 million for the year ended December 31, 2019 prior to the close of the year. Subordinated borrowings could contain representations, warranties, covenants and events of default no more burdensome or restrictive than those contained in the Term Loan Agreement unless such terms were also offered to CRG, had a maturity date later than the maturity date of the Term Loan, and no cash payments of principal or interest could be required prior to the maturity date of the Term Loan. As of December 31, 2019, the Company was in compliance with all applicable covenants of the Term Loan.

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In September 2020, the Company repaid its entire obligation under the Term Loan amounting to \$47.6 million, including principal of \$44.1 million, interest of \$1.3 million and fees of \$2.2 million, using the proceeds from New Term Loan. The repayment of the Term Loan was accounted for as a debt extinguishment, which resulted in an immaterial extinguishment loss.

2020 Term Loan

In September 2020, the Company entered into a new Term Loan Agreement with CRG Partners IV L.P. and its affiliates for total borrowings of up to \$60 million and borrowed \$50 million, or the New Term Loan. The remaining \$10.0 million of the New Term Loan will be available to the Company for borrowing until March 31, 2022 if the Company achieves a revenue-based milestone in 2021.

The New Term Loan bears interest at a rate of 12.5% per year. Payments under the New Term Loan are made quarterly with payment dates fixed at the end of each calendar quarter. The New Term Loan is interest-only through September 30, 2023. Following the interest-only period, principal payments are made in equal installments at the end of the next eight calendar quarters, with the final payment due on September 30, 2025. The New Term Loan includes a fee upon repayment of the loan equal to 10% of the aggregate principal amount being prepaid or repaid. As of December 31, 2020, the New Term Loan had an annual effective interest rate of 16.08% per year.

The New Term Loan is collateralized by substantially all of the Company's assets. The New Term Loan Agreement contains customary representations and warranties, covenants, events of default and termination provisions. The financial covenants require that the Company achieve minimum annual revenue thresholds commencing in 2021 and maintain a minimum balance of cash and cash equivalents (see Note 1).

The Company paid \$1.0 million in fees to the lender and third parties which is reflected as a discount on the loan and is being accreted over the life of the loan using the effective interest method. Also, the Company issued warrants to the lender for a total of 346,823 shares of Series B' redeemable convertible preferred stock. The warrants had a fair value of \$0.6 million as of the issuance date, which was accounted as debt issuance costs (see Note 8).

During the year ended December 31, 2020, the Company recorded interest expense related to deferred financing and debt issuance costs of the New Term Loan of \$0.1 million.

Interest expense on the New Term Loan was \$2.0 million during the year ended December 31, 2020.

Paycheck Protection Program

In April 2020, the Company received \$4.0 million from a federal Small Business Administration loan under the Paycheck Protection Program, or the PPP Loan. The note bears interest at 1.0% per year on the outstanding principal amount and matures 24 months from the date of the note. No payments were due for the six month period beginning on the date of the note. Payments of principal and interest were due over the following 18 months. The Small Business Administration modified the PPP Loan such that monthly payments of principal and interest are due from September 2021 through April 2022. As of December 31, 2020, the Company did not make any repayments of the PPP Loan.

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As of December 31, 2020, future minimum payments for the New Term Loan and PPP Loan are as follows (in thousands):

	New Term Loan	PPP Loan
2021	\$ 6,337	\$ 2,043
2022	6,337	2,043
2023	12,587	—
2024	29,364	—
2025	24,931	—
Total	79,556	4,086
Less: Unamortized debt discount and issuance cost	(1,429)	—
Less: Unaccreted backend fee	(4,784)	—
Less: Interest	(24,556)	(29)
Total future minimum payments	<u>\$ 48,787</u>	<u>\$ 4,057</u>

2019 and 2020 Convertible Notes

In March and September 2019, Company issued the 2019 Convertible Notes to certain investors for aggregate proceeds of \$21.3 million. In January and March 2020, the Company raised \$7.1 million and \$5.4 million, respectively, through the sale and issuance of additional convertible notes, or the 2020 Convertible Notes. The 2019 and 2020 Convertible Notes were subordinated to the Term Loan, bore interest on the outstanding principal amount at the rate of 8.0% per annum, and had a maturity date of December 31, 2020.

Upon the consummation of an equity financing with aggregate proceeds to the Company of not less than \$18.0 million, or the Qualified Financing, the outstanding principal balance of the 2019 and 2020 Convertible Notes and accrued but unpaid interest would convert into shares of capital stock issued in such Qualified Financing at a conversion price equal to 85% of the issuance price per share of such capital stock in such Qualified Financing. In the event the Company consummated, while the 2019 and 2020 Convertible Notes remained outstanding, an equity financing that did not constitute a Qualified Financing, then the majority holders had the option to treat such equity financing as a Qualified Financing. If the Company did not complete a Qualified Financing prior to the maturity date while the 2019 and 2020 Convertible Notes remained outstanding, the holders of the notes could elect to convert the outstanding principal and unpaid accrued interest into the Company's Series A' redeemable convertible preferred stock at a conversion price of \$116.35 per share.

Upon the occurrence of a change of control, the 2019 and 2020 Convertible Notes would upon the election of the majority holders either (i) become due and payable upon the closing of such change of control in cash in an amount equal to (a) the outstanding principal amount plus any unpaid accrued interest, plus (b) a repayment premium equal to 100% of the outstanding principal amount, or (ii) be converted such that the outstanding principal balance of the notes and any unpaid accrued interest would convert into shares of the Company's Series A' redeemable convertible preferred stock at a conversion price equal to \$116.35 per share.

The 2019 and 2020 Convertible Notes contained embedded derivative instruments, including automatic conversion into equity securities upon completion of a Qualified Financing, that were required to be bifurcated and accounted for separately as a single derivative instrument initially and subsequently measured at fair value with the change in fair value recorded in other income (expense), net in the statements of operations and comprehensive loss. The issuance date estimated fair values of the derivative instruments issued with the March and September 2019 notes were \$4.1 million and \$1.9 million, respectively, which were recorded as debt discounts. As of December 31, 2019, the estimated fair value of the aggregate outstanding derivative instrument was \$4.7 million. The issuance date estimated fair values of the derivative instruments issued with the January and March 2020 notes were \$1.0 million and \$0.7 million, respectively, which were recorded as debt discounts. In August 2020, the derivative instrument was extinguished in connection with the issuance of Series B' redeemable convertible preferred stock.

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The discount on the 2019 and 2020 Convertible Notes was amortized over the contractual term ending on December 31, 2020, using the effective interest method. The annual effective interest rate was estimated from 10.8% to 12.2% per year. The interest expense for the year ended December 31, 2019 was \$3.3 million, consisting of \$1.1 million of contractual interest expense and \$2.2 million amortization of debt discount arising from separation of the embedded derivative instrument. The interest expense for the year ended December 31, 2020 was \$4.6 million, consisting of \$1.4 million of contractual interest expense and \$3.2 million amortization of debt discount arising from separation of the embedded derivative instrument.

For the years ended December 31, 2019 and December 31, 2020, \$15.7 million and \$10.3 million of convertible notes were issued to related parties, resulting in interest expense of \$0.9 million and \$1.3 million, respectively.

As of December 31, 2019, the Company was in compliance with all applicable covenants of the 2019 Convertible Notes.

In connection with the sale and issuance of Series B' redeemable convertible preferred stock all outstanding convertible notes were modified to remove the 15% discount on conversion. All outstanding convertible notes of \$33.9 million and accrued unpaid interest of \$2.5 million were converted into 8,379,410 shares of Series B' redeemable convertible preferred stock at 100% of the preferred stock issuance price of \$4.3423 per share.

The conversion of the 2019 Convertible Notes and 2020 Convertible Notes into shares of Series B' redeemable convertible preferred stock was accounted for as a debt extinguishment with \$4.1 million extinguishment gain recognized as a deemed capital contribution to additional paid-in capital in the quarter ended September 30, 2020, as the holders of the notes were existing stockholders of the Company.

7. Redeemable Convertible Preferred Stock

In September 2016, the Company completed a recapitalization in which all then outstanding shares of redeemable convertible preferred stock were converted to common stock on a one-for-one basis pursuant to the original conversion terms specified in the Company's Certificate of Incorporation.

In August 2020, the Company amended its Certificate of Incorporation, pursuant to which the Company has two series of redeemable convertible preferred stock, designated as Series A' and Series B'. In August 2020, the Company issued 7,599,720 shares of Series B' redeemable convertible preferred stock at \$4.3423 per share for gross proceeds of \$33.0 million. In connection with the issuance of Series B' redeemable convertible preferred stock, all outstanding convertible notes of \$33.9 million and accrued unpaid interest of \$2.5 million were converted into 8,379,410 shares of Series B' redeemable convertible preferred stock at such price.

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As of December 31, 2019, the redeemable convertible preferred stock comprises (in thousands, except per share and share amounts):

	Number of Shares Authorized	Number of Shares Issued and Outstanding	Carrying Amount	Liquidation Value	Original Issue Price
Series A'	180,000,000	635,048	\$ 73,568	\$ 73,890	\$ 116.3500

As of December 31, 2020, the redeemable convertible preferred stock comprises (in thousands, except per share and share amounts):

	Number of Shares Authorized	Number of Shares Issued and Outstanding	Carrying Amount	Liquidation Value	Original Issue Price
Series A'	1,651,154	635,048	\$ 73,340	\$ 36,945	\$ 58.1750
Series B'	59,106,232	15,979,130	\$ 68,082	\$ 190,810	\$ 4.3423
	<u>60,757,386</u>	<u>16,614,178</u>	<u>\$ 141,422</u>	<u>\$ 227,755</u>	

The rights, preferences, privileges and restrictions granted to or imposed on the Company's redeemable convertible preferred stock or the holders thereof are as follows:

Dividends

The holders of redeemable convertible preferred stock shall be entitled to receive dividends, out of any assets legally available therefore, prior and in preference to any declaration or payment of any dividend to the common stockholders, at the rate of \$4.6540 per share per annum on each outstanding share of Series A' redeemable convertible preferred stock and \$0.3474 per share per annum on each outstanding share of Series B' redeemable convertible preferred stock, payable when, as and if declared by the Board of Directors. Such dividends shall not be cumulative and if less than the full amount of dividends payable on the redeemable convertible preferred stock is declared and paid, any such payments shall be made ratably among the holders of the redeemable convertible preferred stock in proportion to the total amount each holder would be entitled to receive if the full amount of dividends payable on the redeemable convertible preferred stock had been declared. As of December 31, 2019 and December 31, 2020, no dividends had been declared.

Liquidation

In the event of any liquidation, dissolution or winding up of the Company, the holders of the Company's Series B' redeemable convertible preferred stock shall be entitled to receive, prior to any distribution of the Company's assets to the holders of Series A' redeemable convertible preferred stock and common stock, an amount per share equal to (i) as of and following August 19, 2020 (the "Initial Closing" of Series B' redeemable convertible preferred stock), and prior to, at the Company's election, the earlier of (a) the date the Company's cash balance falls below \$4.0 million and (b) March 31, 2022 (the "Deferred Closing"), 2.75 times \$4.3423 per share for each share of Series B' redeemable convertible preferred stock, and (ii) as of and following the date of the Deferred Closing, either (x) 2.75 times \$4.3423 per share if the Company's actual cash-burn between the Initial Closing and December 31, 2021 is 110% or less of the Company's business plan cash-burn for such time period as approved by the Board of Directors, or (y) otherwise 3 times \$4.3423, for each share of Series B' redeemable convertible preferred stock, plus declared but unpaid dividends.

If, upon the occurrence of such event, the assets and funds thus distributed among the holders of redeemable convertible preferred stock shall be insufficient to permit the payment to such holders of the full amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of redeemable convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive.

After full payment to the holders of Series B' redeemable convertible preferred stock, the holders of Series A' redeemable convertible preferred stock shall be entitled to receive, prior to any distribution of the Company's assets

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to the holders of common stock, an amount per share equal to \$58.1750 per share for each share of redeemable convertible preferred stock plus declared but unpaid dividends. If, upon the occurrence of such event, the assets and funds thus distributed among the holders of redeemable convertible preferred stock shall be insufficient to permit the payment to such holders of the full amounts, then the entire assets and funds of the Company legally available for distribution shall be distributed ratably among the holders of redeemable convertible preferred stock in proportion to the preferential amount each such holder is otherwise entitled to receive.

After the payment to the holders of redeemable convertible preferred stock of the full preferential amounts specified above, all of the remaining assets of the Company available for distribution to stockholders shall be distributed among the holders of Series B' redeemable convertible preferred stock, Series A' redeemable convertible preferred stock and common stock pro rata based on the number of shares of common stock held by each such holder, treating for this purpose all shares of redeemable convertible preferred stock as if converted to common stock prior to such liquidation, dissolution or winding up of the Company.

Conversion

The Company's redeemable convertible preferred stock is convertible into shares of common stock at the option of a holder on a one-for-one basis with the conversion ratio subject to standard antidilutive adjustments, such as stock splits, stock dividends, combinations, subdivisions, recapitalizations or the like. The initial conversion price shall be \$4.3423 and \$58.1750 per share of Series B' and Series A' redeemable convertible preferred stock, respectively. Each share of Series A' redeemable convertible preferred stock is convertible into shares of common stock immediately upon the date specified by written consent or written agreement of the holders of a majority of the outstanding shares of Series A' redeemable convertible preferred stock. Each share of Series B' redeemable convertible preferred stock is convertible into shares of common stock immediately upon (A) the date specified by written consent or written agreement of the holders of a majority of the outstanding shares of Series B' redeemable convertible preferred stock and the Requisite Significant New Holders (as defined below) and (B) any firm commitment underwritten public offering approved by two new investors that have committed to the investment of an aggregate of \$7,499,900 or more (each, a "Significant Investor") in the Initial Closing and the Deferred Closing combined (such two Significant Investors, together, the "Requisite Significant New Holders").

Voting Rights

The holders of redeemable convertible preferred stock shall have the right to one vote for each share of common stock into which such redeemable convertible preferred stock could then be converted. With respect to such vote, the holder shall have full voting rights and powers equal to the voting rights and powers of the holders of common stock, shall be entitled to notice of any stockholders' meeting in accordance with the bylaws of the Company, and shall be entitled to vote, together with holders of common stock, with respect to any question upon which holders of common stock have the right to vote.

Redemption and Balance Sheet Classification

The redeemable convertible preferred stock is recorded within mezzanine equity because, while it is not mandatorily redeemable, it will become redeemable at the option of the holders upon the occurrence of certain deemed liquidation events that are considered not solely within the Company's control.

8. Redeemable Convertible Preferred Stock Warrant Liability

On September 24, 2020, in connection with the entering into the New Term Loan Agreement, the Company issued CRG Partners IV L.P. and its affiliates warrants to purchase 346,823 shares of Series B' redeemable convertible preferred stock at an exercise price of \$6.51339 per share, or the Series B' Warrants, which was accounted as debt issuance costs.

The Series B' Warrants will terminate at the earlier of the ten year anniversary from the issuance date, the closing of the Company's IPO or Liquidation of the Company. These warrants have a net exercise provision under which their holders may, in lieu of payment of the exercise price in cash, surrender the warrant and receive a net amount of shares based on the fair market value of the Company's stock at the time of exercise of the warrants after

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deduction of the aggregate exercise price. The Series B' Warrants contain provisions for adjustment of the exercise price and number of shares issuable upon the exercise of warrants in the event of certain stock dividends, stock splits, reorganizations, reclassifications, and consolidations.

The fair value of the Series B' Warrants was recorded on the date of issuance. The Series B' Warrants had a fair value of \$0.6 million and \$0.4 million as of the issuance date and December 31, 2020, respectively. The change in fair value of \$0.2 million during the year ended December 31, 2020 was recorded as a component of other income (expense), net in the statements of operations and comprehensive loss.

The redeemable convertible preferred stock warrant liability was valued using the following assumptions under the Black-Scholes option-pricing model:

	Issuance Date	December 31, 2020
Stock price	\$4.34	\$3.43
Expected term (in years)	10.0	9.7
Expected volatility	38.4%	39.0%
Weighted average risk-free interest rate	0.67%	0.91%
Dividend yield	—%	—%

9. Common Stock

The Company's Certificate of Incorporation, as amended in August 2020, authorizes the Company to issue 74,636,348 shares of \$0.001 par value common stock.

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 redeemable convertible preferred stock outstanding. As of December 31, 2019 and December 31, 2020, no dividends had been declared.

As of December 31, 2019 and December 31, 2020, the Company had reserved common stock for future issuance as follows:

	Year Ended December 31,	
	2019	2020
Conversion of Series A' redeemable convertible preferred stock	635,048	635,048
Conversion of Series B' redeemable convertible preferred stock	—	15,979,130
Outstanding options under the 2009 Plan	178,787	6
Outstanding options under the 2020 Plan	—	2,835,265
Options available for future grant under the 2020 Plan	—	818,889
Redeemable convertible preferred stock warrants issued and outstanding	—	346,823
Common stock warrants issued and outstanding	219	219
Total	814,054	20,615,380

10. Stock Option Plans

2009 Stock Plan

In September 2009, the Company adopted the 2009 Stock Plan, or the 2009 Plan, which provides for the granting of stock options to employees, directors and consultants of the Company. Stock options granted under the 2009 Plan may be either incentive stock options, or ISOs, or nonqualified stock options, or NSOs. ISOs may only be

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granted to Company employees (including officers and directors who are also employees). NSOs may be granted to company employees, directors and consultants.

The per share exercise price of ISOs shall be no less than 100% of the fair market value per share of the Company's common stock on the date of grant as determined by the Company's Board of Directors. The per share exercise price of NSOs shall be no less than 85% of the fair market value per share of the common stock on the date of grant as determined by the Company's Board of Directors. The exercise price of ISOs and NSOs granted to a 10% stockholder shall not be less than 110% of the estimated fair value of the shares on the date of grant as determined by the Company's Board of Directors.

The maximum term of each stock option grant is ten years. Time-based stock options granted under the 2009 Plan generally vest either ratably on a monthly basis over four years or 25% one year after the commencement of vesting (service inception date) and vest ratably thereafter on a monthly basis over the next three years.

The 2009 Plan expired in September 2019; as a result, 2,039 shares that were available for issuance were retired.

2020 Stock Plan

In August 2020, the Company adopted the 2020 Stock Plan, or the 2020 Plan, which provides for the granting of stock options to employees, directors and consultants of the Company. Stock options granted under the 2020 Plan may be either ISOs, NSOs, stock appreciation rights, restricted stock awards, restricted stock unit awards or other stock awards. ISOs may only be granted to Company employees (including officers and directors who are also employees). Stock awards other than ISOs may be granted to company employees, directors and consultants.

The maximum term of each stock option grant is ten years. The exercise price of ISOs and NSOs granted to a 10% stockholder shall not be less than 110% of the estimated fair value of the shares on the date of grant as determined by the Company's Board of Directors.

The 2009 Plan will continue to govern the terms and conditions of the outstanding awards granted under it. Shares of common stock subject to awards granted under the 2009 Plan that are forfeited or lapse unexercised will become available for issuance subsequently under the 2020 Plan.

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Activity under the 2009 Plan and 2020 Plan is set forth below:

	Shares Available for Grant	Options Outstanding		
		Number of Shares	Weighted-Average Exercise Price	Weighted Average Remaining Contractual Term (in Years)
Balances as of January 1, 2019	82,311	99,230	\$ 57.20	7.39
Authorized/(retired)	(2,039)	—		
Options granted	(83,103)	83,103	\$ 37.32	
Options exercised		(715)	\$ 43.99	
Options cancelled	2,831	(2,831)	\$ 56.78	
Balances as of December 31, 2019	—	178,787	\$ 47.97	7.89
Authorized	3,591,888	—		
Options granted	(2,951,534)	2,951,534	\$ 0.03	
Options exercised		(112,049)	\$ 0.10	
Options cancelled	178,535	(183,007)	\$ 46.82	
Balances at December 31, 2020	818,889	2,835,265	\$ 0.03	9.57
Vested and exercisable at December 31, 2020		311,310	\$ 0.03	8.84
Vested and expected to vest at December 31, 2020		2,835,265	\$ 0.03	9.57

The following table summarizes information about stock options outstanding as of December 31, 2019:

Exercise Price	Options Outstanding				Options Vested	
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Number of Shares	Weighted Average Exercise Price	
\$ 36.40	79,357	\$ 36.40	9.55	17,028	\$ 36.40	
\$ 57.20	99,430	\$ 57.20	6.57	74,600	\$ 57.20	
	178,787	\$ 47.97	7.89	91,628	\$ 53.33	

The following table summarizes information about stock options outstanding as of December 31, 2020:

Exercise Price	Options Outstanding				Options Vested	
	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Number of Shares	Weighted Average Exercise Price	
\$ 0.03	2,835,265	\$ 0.03	9.57	311,310	\$ 0.03	

As of December 31, 2020, the total unrecognized stock-based compensation expense related to unvested stock options was \$2.0 million, which will be amortized on a straight-line basis over a weighted average remaining period of 3.63 years.

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying stock options and the fair value of the Company's common stock for stock options that were in-the-money at period end. The total intrinsic value of stock options exercised was \$0 and \$0.1 million during the years ended December 31, 2019 and December 31, 2020, respectively, determined at the date of each stock option exercise.

Early Exercise of Stock Options

The terms of the 2020 Plan permit the exercise of options granted under the 2020 Plan prior to vesting, subject to required approvals. The shares of common stock issued from the early exercise of unvested stock options are restricted and continue to vest over the original implied service period. The Company has the option to repurchase

NeuroPace, Inc.
Notes to Financial Statements

any unvested shares at the original purchase price upon any voluntary or involuntary termination. The shares purchased by the employees and non-employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be outstanding until those shares vest. The cash received in exchange for exercised and unvested shares related to stock options granted is recorded as a liability for the early exercise of stock options in accrued liabilities on the accompanying balance sheet and will be transferred into common stock and additional paid-in capital as the shares vest. As of December 31, 2019 and December 31, 2020 there were 38 and 30,802 early exercised options subject to repurchase, respectively.

The Company recognized stock-based compensation as follows:

	Year Ended December 31,	
	2019	2020
Cost of goods sold	\$ 29	\$ 21
Research and development	444	454
Selling, general and administrative	969	904
Total stock-based compensation	<u>\$ 1,442</u>	<u>\$ 1,379</u>

Stock-Based Compensation Associated with Awards to Employees

The total fair value of options that vested during the years ended December 31, 2019 and December 31, 2020 was \$1.0 million and \$1.1 million, respectively. The options granted during the years ended December 31, 2019 and December 31, 2020 had a weighted average grant date fair value of \$16.408 per share and \$0.462 per share, respectively.

The Company estimated the fair value of stock options using the Black-Scholes option pricing 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 following assumptions for the years ended December 31, 2019 and December 31, 2020:

	Year Ended December 31,	
	2019	2020
Expected term (in years)	6.3	6.25
Expected volatility	44% - 65%	51%
Weighted average risk-free interest rate	2.0% - 2.3%	0.53%
Fair value of common stock	\$36.40 - \$57.20	\$0.03 - \$0.52
Dividend yield	—%	—%

The fair value of the shares of common stock underlying the stock options has historically been determined by the Company's Board of Directors. Because there has been no public market for the common stock, the Company's Board of Directors has determined the fair value of the common stock at the time of grant of the option by considering a valuation performed by an unrelated third-party valuation firm as well as a number of objective and subjective factors including valuation of comparable companies, sales of redeemable convertible preferred stock to unrelated third parties, operating and financial performance, the lack of liquidity of capital stock and general and industry specific economic outlook, among other factors. The fair value of common stock was determined in accordance with applicable elements of the American Institute of Certified Public Accountants Practice Aid, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the Practice Aid.

For stock options granted from January 2019 until July 2019, the Company utilized the Option Pricing Method, or the OPM, as the primary method to determine the indication of common stock value by "back-solving" the value implied by the Series A' redeemable convertible preferred stock pricing. For stock options granted from July 2019 through August 2020, the Company utilized the market approach and the transaction approach outlined in the Practice Aid for the valuation of its equity. The market approach was used to represent the fair market value and fair value of the Company's equity based upon continuing operations as a private entity in the remain private scenario. The transaction approach was used to determine an indication of fair market value and fair value for the Company under an initial public offering, or IPO, and a merger and acquisition scenario. Once the Company determined its

NeuroPace, Inc.

Notes to Financial Statements

equity values for each exit event, the Company applied the Probability-Weighted Expected Return Method, or the PWERM, to determine the fair market value and fair value of its common stock. All probabilities and future exit events were based on the Company's expectations regarding the timing and method of liquidity. For stock options granted from September 2020 through December 2020, the Company used a hybrid approach of the PWERM and the OPM to determine the estimated fair value of its common stock. Under the PWERM, the Company utilized a multi-scenario approach and estimated the value of its common stock based upon an IPO as a possible future event. The IPO scenario values were based on estimated IPO valuations and timing, discounted back to the valuation date at an appropriate rate of return. The equity value per share under a remain-private-longer scenario, which contemplates undergoing an exit event at a later date, was based on "backsolving" the value implied by the Series B' convertible preferred stock financing. Under this multi-scenario hybrid approach, the per share values calculated under each scenario were weighted based on the probability associated with each scenario and the quality of the information specific to each allocation methodology to arrive at a final estimated fair value per share of the common stock before a discount for lack of marketability was applied.

The Company uses the Black-Scholes option-pricing model to estimate the fair value of options granted. Option valuation models, including the Black-Scholes option-pricing model, require the input of several assumptions. These assumptions include the risk-free rate of interest, expected dividend yield, expected volatility and the expected life of the award. The expected term of stock options represents the weighted-average period the stock options are expected to remain outstanding. The Company does not have sufficient historical exercise and post-vesting termination activity to provide accurate data for estimating the expected term of options and has opted to use the "simplified method," whereby the expected term equals the arithmetic average of the vesting term and the original contractual term of the option. The expected stock price volatility assumption was determined by examining the historical volatilities for industry peers, as the Company did not have any trading history for its common stock. The Company will continue to analyze the historical stock price volatility and expected term assumption as more historical data for the Company's common stock becomes available. The risk-free interest rate assumption is based on the U.S. Treasury instruments whose term was consistent with the expected term of the Company's stock options. The expected dividend assumption is based on the Company's history and expectation of dividend payouts.

The fair value of the underlying common stock will be determined by the Company's Board of Directors until such time as the common stock is listed on an established stock exchange or national market system.

The Company accounts for forfeitures as they occur.

In November 2020, the Company's Board of Directors approved the repricing of all outstanding stock options for employees, officers and consultants. The Company has treated the repricing as a modification of terms of the options outstanding. The fair value of the modification was determined as the difference in the fair value of each option immediately before and after the repricing using the Black-Scholes option pricing model with a dividend rate of 0%, a risk free rate of 0.53%, a volatility of 51%, an expected term of 6.25 years, and a market price of \$0.78 per share. The repricing resulted in an incremental compensation cost of \$0.1 million for the year ended December 31, 2020.

11. Income Taxes

The Company's operations and income tax components are solely in the United States. The Company has incurred net operating losses and no income tax provision was recorded for all the periods presented. The Company accounts for income taxes in accordance with ASC 740, which requires that the tax benefit of net operating losses, temporary differences and credit carryforwards be recorded as an asset to the extent that management assesses that realization is "more likely than not." Realization of the future tax benefits is dependent on the Company's ability to generate sufficient taxable income within the carryforward period. Because of the Company's recent history of

NeuroPace, Inc.
Notes to Financial Statements

operating losses, management believes that recognition of the deferred tax assets arising from the above-mentioned future tax benefits is currently not likely to be realized and, accordingly, has provided a full valuation allowance.

A reconciliation of the statutory U.S. federal rate to the Company's effective tax rate is as follows:

	December 31,	
	2019	2020
Tax at federal statutory rate	21.0 %	21.0 %
State taxes, net of federal benefit	1.0 %	7.6 %
Research and development tax credit	2.0 %	2.4 %
Permanent differences	0.5 %	(0.1)%
Nondeductible interest expense	(2.2)%	(5.5)%
FIN 48 reserve	(0.4)%	(0.4)%
Change in valuation allowance	(22.3)%	(21.8)%
Other	0.4 %	(3.2)%
Total	-0.000000000000000000346944695195361	— %

The tax effects of temporary differences that give rise to significant components of the deferred tax asset are as follows (in thousands):

	December 31,	
	2019	2020
Net operating loss carryforwards	\$ 26,647	\$ 30,367
Research and development credits	9,516	10,327
Fixed assets, inventory and intangible assets	963	743
Accruals and reserves	1,034	1,409
Interest expense carryforward	—	1,228
Other	768	146
	38,928	44,220
Valuation allowance	(38,928)	(44,220)
Net deferred tax assets	\$ —	\$ —

The valuation allowance increased by \$6.7 million and \$5.3 million during the years ended December 31, 2019 and 2020, respectively.

As of December 31, 2020, the Company had net operating loss, or NOL, carryforwards of \$115.1 million and \$99.5 million available to reduce future taxable income, if any, for federal and state income tax purposes, respectively. The federal and state NOL carryforwards begin expiring in 2021 and 2028, for federal and state purposes, respectively. As of December 31, 2020, the amount of federal NOL carryforwards that does not expire is \$62.5 million (subject to certain utilization limitations).

As of December 31, 2020, the Company had research and development credit carryforwards of \$2.3 million and \$11.6 million available to reduce future taxable income, if any, for federal and state income tax purposes, respectively. The federal credit carryforwards begin expiring in 2036 and the state credits carryforward indefinitely.

Utilization of the Company's NOL and tax credit carryforwards may be subject to a substantial annual limitation due to the ownership change provisions included in the Internal Revenue Code, or Section 382, and similar state provisions. An annual limitation may result in the expiration of NOL and credit carryforwards before utilization. The Company conducted a Section 382 study as of 2016 and 2020 and has determined that it experienced a Section 382 ownership change in 2016, resulting in permanent limitations of its NOL and credit carryforwards. It has been determined that \$233.6 million and \$150.7 million of federal and state NOL carryforwards, respectively, have been permanently limited and will expire unutilized. It has also been determined that \$10.5 million of federal research and development credits have been permanently limited and will expire unutilized. The gross deferred tax

NeuroPace, Inc.
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assets disclosed above excludes NOL and credit carryforwards that are expected to expire due to the Section 382 limitation.

On March 27, 2020, the President signed into law the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act, an economic stimulus package in response to the COVID-19 global pandemic and the Families First Coronavirus Response Act, or FFCR Act, which permits employees of certain organizations paid sick time stemming from COVID-19-related issues. The CARES Act contains several corporate income tax provisions, including making remaining alternative minimum tax credits immediately refundable; providing a 5-year carryback of NOLs generated in tax years 2018, 2019, and 2020, and removing the 80% taxable income limitation on utilization of those NOLs if carried back to prior tax years or utilized in tax years beginning before 2021; temporarily liberalizing the interest deductibility rules under Section 163(j) of the CARES Act, by raising the adjusted taxable income limitation from 30% to 50% for tax years 2019 and 2020 and giving taxpayers the election of using 2019 adjusted taxable income for purposes of computing 2020 interest deductibility. The CARES Act did not have a material impact on the Company's tax provision for the year ended December 31, 2020.

The Consolidated Appropriations Act, 2021, which was enacted on December 27, 2020, has expanded, extended, and clarified selected CARES Act provisions, specifically on Paycheck Protection Program loans and Employee Retention Tax Credits, 100% deductibility of business meals as well as other tax extenders. The Consolidated Appropriations Act did not have a material impact on the Company's tax provision for the year ended December 31, 2020.

California Assembly Bill 85 (AB 85) was signed into law by Governor Gavin Newsom on June 29, 2020. The legislation suspends the California NOL deductions for 2020, 2021, and 2022 for certain taxpayers and imposes a limitation on certain California tax credits for 2020, 2021, and 2022. The legislation disallows the use of California NOL deductions if the taxpayer recognizes business income and its adjusted gross income is greater than \$1,000,000. The carryover periods for NOL deductions disallowed by this provision will be extended. Additionally, any business credit will only offset a maximum of \$5,000,000 of California tax. Given the Company's loss position in the current year, the new legislation did not impact the tax provision for the year ended December 31, 2020. The Company will continue to monitor possible California NOL and credit limitations in future periods.

As of December 31, 2020, the Company had unrecognized tax benefits of \$1.4 million related to \$0.2 million and \$1.2 million of federal and state research and development tax credit carryforwards, respectively. The unrecognized tax benefits, if recognized, would not have an impact on the Company's effective tax rate, due to the valuation allowance. It is unlikely that the amount of unrecognized tax benefits will significantly change over the next twelve months. No liability related to uncertain tax positions is recorded in the financial statements.

A reconciliation of the beginning and ending unrecognized tax benefit amount is as follows (in thousands):

	Year Ended December 31,	
	2019	2020
Beginning balance	\$ 1,159	\$ 1,280
Increase in balance related to tax positions taken during the current year	120	109
Increase in balance related to tax positions taken during prior years	1	1
Ending balance	<u>\$ 1,280</u>	<u>\$ 1,390</u>

It is the Company's policy to include penalties and interest expense related to income taxes as a component of other expense and interest expense, respectively, as necessary. The Company determined that no accrual for interest and penalties was required as of December 31, 2019 and December 31, 2020.

All of the Company's tax years will remain open for examination by the federal and state authorities for 3 and 4 years, respectively, from the date of utilization of its tax attributes.

NeuroPace, Inc.
Notes to Financial Statements

12. Net Loss per Share Attributable to Common Stockholders

The following table sets forth the computation of basic and diluted net loss per share attributable to common stockholders (in thousands, except for share and per share amounts):

	Year Ended December 31,	
	2019	2020
Numerator:		
Net loss	\$ (29,973)	\$ (24,278)
Reduction of Series A' redeemable convertible preferred stock liquidation value	—	228
Net loss attributable to common stockholders	\$ (29,973)	\$ (24,050)
Denominator:		
Weighted-average common stock outstanding used to compute basic and diluted net loss per share	201,925	204,068
Net loss per share attributable to common stockholders, basic and diluted	<u>\$ (148.44)</u>	<u>\$ (117.85)</u>

In connection with issuance of Series B' redeemable convertible preferred stock, the Company amended the terms of the existing Series A' redeemable convertible preferred stock and reduced the liquidation preference of Series A' redeemable convertible preferred stock from \$116.350 to \$58.175. The reduction of Series A' redeemable convertible preferred stock liquidation preference was accounted for as an extinguishment with \$0.2 million recognized as extinguishment gain in accumulated deficit in the quarter ended September 30, 2020. The extinguishment gain reduced the net loss attributable to common stockholders for the year ended December 31, 2020.

The following potentially dilutive securities outstanding have been excluded from the computation of diluted weighted average shares outstanding because such securities have an antidilutive impact due to the Company's net loss, in common stock equivalent shares:

	Year Ended December 31,	
	2019	2020
Redeemable convertible preferred shares	635,048	16,614,178
Options to purchase common stock	178,787	2,835,265
Unvested early exercised common stock options	38	30,802
Redeemable convertible preferred stock warrants	—	346,823
Total Shares	<u>813,873</u>	<u>19,827,068</u>

13. 401(k) Savings Plan

On January 1, 2000, the Company established a defined contribution savings plan under Section 401(k) of the Internal Revenue Code. This plan covers substantially all employees who meet minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. To date, the Company has made no contributions to the 401(k) plan.

14. Related Parties

Covidien Group S.a.r.l., an indirect wholly-owned subsidiary of Medtronic, plc, became a holder of more than five percent of the Company's capital stock in August 2020. Pursuant to the terms of a cross-license with Medtronic, the Company made royalty payments of approximately \$0.4 million during both the years ended December 31, 2019 and 2020 (see Note 1).

NeuroPace, Inc.
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In August 2020, the Company reimbursed KCK Ltd., a greater than five percent stockholder, a total of approximately \$0.3 million for executive recruitment services that had been paid by KCK to the service providers on behalf of the Company.

Also see Note 6 for additional related party transactions related to the 2019 and 2020 Convertible Notes.

15. Subsequent Events

In connection with the preparation of the financial statements, the Company evaluated events subsequent to the balance sheet date of December 31, 2020 through March 24, 2021, the date the financial statements were available for issuance.

In January 2021, the Board of Directors authorized the grant of options to purchase a total of 188,361 shares of common stock to management and employees at a weighted average exercise price of \$1.04 per share.

Events Subsequent to Original Issuance of Financial Statements (Unaudited)

In connection with the reissuance of the financial statements, the Company has evaluated subsequent events through April 14, 2021, the date the financial statements were available to be reissued.

In April 2021, the Board of Directors authorized the grant of options to purchase a total of 53,067 shares of common stock to employees at a weighted average exercise price of \$16.00 per share.

In April 2021, the Company amended the number of authorized shares of common stock to 200,000,000 and the number of authorized shares of redeemable convertible preferred stock to 23,368,225.

5,313,000 shares



NEUROPACE

**Common stock
Prospectus**

J.P. Morgan

Wells Fargo Securities

Morgan Stanley

SVB Leerink

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table indicates the expenses to be incurred in connection with the offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by us. All amounts are estimated except the SEC registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and the exchange listing fee.

	Amount
SEC registration fee	\$ 11,332
FINRA filing fee	16,080
Exchange listing fee	25,000
Accountants' fees and expenses	1,200,000
Legal fees and expenses	1,800,000
Transfer Agent's fees and expenses	5,000
Printing and engraving expenses	185,000
Miscellaneous	257,588
Total expenses	<u>\$ 3,500,000</u>

Item 14. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers in terms sufficiently broad to permit such indemnification under certain circumstances for liabilities, including reimbursement for expenses incurred, arising under the Securities Act. Our amended and restated certificate of incorporation that will be in effect on the closing of this offering permits indemnification of our directors, officers, employees and other agents to the maximum extent permitted by the Delaware General Corporation Law, and our amended and restated bylaws that will be in effect on the closing of this offering provide that we will indemnify our directors and officers and permit us to indemnify our employees and other agents, in each case to the maximum extent permitted by the Delaware General Corporation Law.

We have entered into indemnification agreements with our directors and executive officers, whereby we have agreed to indemnify our directors and executive officers to the fullest extent permitted by law, including indemnification against expenses and liabilities incurred in legal proceedings to which the director or executive officer was, or is threatened to be made, a party by reason of the fact that such director or executive officer is or was a director, executive officer, employee or agent of NeuroPace, Inc., provided that such director or executive officer acted in good faith and in a manner that the director or executive officer reasonably believed to be in, or not opposed to, our best interests. At present, there is no pending litigation or proceeding involving any of our directors or executive officers regarding which indemnification is sought, nor are we aware of any threatened litigation that may result in claims for indemnification.

We maintain insurance policies that indemnify our directors and officers against various liabilities arising under the Securities Act and the Exchange Act that might be incurred by any director or officer in his or her capacity as such.

The underwriters are obligated, under certain circumstances, pursuant to the underwriting agreement to be filed as Exhibit 1.1 hereto, to indemnify us, our officers and our directors against liabilities under the Securities Act.

Item 15. Recent Sales of Unregistered Securities.

The following sets forth information regarding all unregistered securities sold since January 1, 2018.

1. We issued and sold an aggregate of 2,392 shares of common stock upon the exercise of options under our 1999 Stock Plan at a per share exercise price of \$57.20, for an aggregate exercise price of \$0.1 million.
2. We granted to certain of our executive officers and employees options to purchase 95,962 shares of common stock with per share exercise prices ranging from \$36.40 to \$57.20 under our 2009 Stock Plan, or the 2009 Plan.
3. We issued and sold an aggregate of 1,759 shares of common stock upon the exercise of options under our 2009 Plan at per share exercise prices ranging from \$36.30 to \$57.20, for an aggregate exercise price of \$0.1 million.
4. We granted to certain of our executive officers and employees options to purchase 3,381,323 shares of common stock with per share exercise prices ranging from \$0.026 to \$16.00 under our 2020 Stock Plan, or the 2020 Plan.
5. We issued and sold an aggregate of 276,367 shares of common stock upon the exercise of options under our 2020 Plan at a per share exercise price of \$0.026, for an aggregate exercise price of \$7.2 thousand.
6. In August 2020, we issued an aggregate of 15,979,130 shares of Series B' convertible preferred stock to accredited investors at a purchase price of \$4.3423 per share for aggregate cash proceeds of approximately \$69.4 million.
7. In September 2020, we issued warrants to purchase an aggregate of 346,823 shares of Series B' convertible preferred stock to accredited investors at a per share exercise price of \$6.51339.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering. Unless otherwise specified above, we believe these transactions were exempt from registration under the Securities Act in reliance on Section 4(a)(2) of the Securities Act (and Regulation D promulgated thereunder), or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or under benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed on the share certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

Item 16. Exhibits and Financial Statement Schedules.**(a) Exhibits.**

Exhibit Number	Description of Exhibit
1.1+	Form of Underwriting Agreement.
3.1+	Amended and Restated Certificate of Incorporation of the Registrant, as currently in effect.
3.2+	Form of Amended and Restated Certificate of Incorporation of the Registrant, to be in effect upon the closing of this offering.
3.3+	Amended and Restated Bylaws of the Registrant, as currently in effect.
3.4+	Form of Amended and Restated Bylaws of the Registrant, to be in effect upon the closing of this offering.
4.1+	Form of common stock certificate of the Registrant.
5.1+	Opinion of Cooley LLP.

10.1+	<u>Amended and Restated Investors' Rights Agreement, dated August 19, 2020, by and among the Registrant and the investors listed on Exhibit A thereto.</u>
10.2+	<u>2009 Stock Plan.</u>
10.3+	<u>Forms of Option Agreement, Stock Option Grant Notice and Notice of Exercise under the 2009 Stock Plan.</u>
10.4+	<u>2020 Stock Plan.</u>
10.5+	<u>Forms of Option Agreement, Stock Option Grant Notice and Notice of Exercise under the 2020 Stock Plan.</u>
10.6+	<u>2021 Equity Incentive Plan.</u>
10.7+	<u>Forms of Option Agreement, Stock Option Grant Notice and Notice of Exercise under 2021 Equity Incentive Plan.</u>
10.8+	<u>2021 Employee Stock Purchase Plan.</u>
10.9+	<u>Form of Indemnification Agreement, by and between the Registrant and each of its directors and executive officers.</u>
10.10+	<u>Amended and Restated Offer Letter, dated March 24, 2021, by and between the Company and Michael Favet.</u>
10.11+	<u>Amended and Restated Offer Letter, dated March 24, 2021, by and between the Company and Rebecca Kuhn.</u>
10.12+	<u>Amended and Restated Offer Letter, dated March 24, 2021, by and between the Company and Martha Morell, M.D.</u>
10.13+	<u>Amended and Restated Offer Letter, dated March 24, 2021, by and between the Company and Irina Ridley.</u>
10.14+	<u>Form of Warrant to purchase shares of common stock.</u>
10.15+	<u>Form of Warrant to purchase shares of Series B' convertible preferred stock.</u>
10.16+	<u>Term Loan Agreement, dated September 24, 2020, by among the Company, the Subsidiary Guarantors from time to time party thereto, the Lenders from time to time party thereto and CRG Servicing LLC.</u>
10.17+#	<u>Supply Agreement, dated November 16, 2015, by and between the Company and Micro Systems Technologies Management AG.</u>
10.18+#	<u>Amendment One to the Supply Agreement, dated December 21, 2020, by and between the Company and Micro Systems Engineering, Inc.</u>
10.19+#	<u>Supply Agreement, dated January 1, 2021, by and between the Company and Greatbatch Ltd.</u>
10.20+	<u>Non-Employee Director Compensation Policy.</u>
10.21+	<u>Office Lease, dated August 24, 2011, by and between the Company and BXP Research Park LP (f/k/a BP MV Research Park LLC).</u>
10.22+	<u>First Amendment to Office Lease, dated May 24, 2018, by and between the Company and BXP Research Park LP (f/k/a BP MV Research Park LLC).</u>
10.23+	<u>Lease Modification Agreement, dated April 30, 2020, by and between the Company and BXP Research Park LP (f/k/a BP MV Research Park LLC).</u>
10.24+	<u>Officer Severance Benefit Plan.</u>
10.25+	<u>Employee Cash Incentive Plan.</u>
23.1	<u>Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.</u>
23.2+	<u>Consent of Cooley LLP (included in Exhibit 5.1).</u>
24.1+	<u>Power of Attorney (see signature page to the original filing of this registration statement).</u>
99.1+	<u>Consent of Rakhi Kumar, as director nominee</u>

+ Previously filed

Pursuant to Item 601(b)(10) of Regulation S-K, portions of this exhibit (indicated by asterisks) have been omitted as the registrant has determined that (1) the omitted information is not material and (2) the omitted information would likely cause competitive harm to the registrant if publicly disclosed.

(b) Financial statement schedules.

All financial statement schedules are omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or the notes thereto.

Item 17. Undertakings.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Mountain View, State of California, on April 21, 2021.

NEUROPACE, INC.

By: /s/ Michael Favet
 Michael Favet
 President and Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Michael Favet</u> Michael Favet	Director, President and Chief Executive Officer (Principal Executive Officer)	April 21, 2021
<u>/s/ Rebecca Kuhn</u> Rebecca Kuhn	Chief Financial Officer and Vice President, Finance and Administration (Principal Financial and Accounting Officer)	April 21, 2021
<u>*</u> Frank Fischer	Director	April 21, 2021
<u>*</u> Greg Garfield	Director	April 21, 2021
<u>Rakhi Kumar</u>	Director	
<u>*</u> Joseph S. Lacob	Director	April 21, 2021
<u>*</u> Evan Norton	Director	April 21, 2021
<u>*</u> Renee Ryan	Director	April 21, 2021

By: /s/ Rebecca Kuhn
 Rebecca Kuhn
 Attorney-in-Fact

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the use in this Post-Effective Amendment No.1 to the Registration Statement on Form S-1 of NeuroPace, Inc. of our report dated March 24, 2021, except for the effects of the reverse stock split discussed in Note 2 to the financial statements, as to which the date is April 14, 2021, relating to the financial statements of NeuroPace, Inc., which appears in this Registration Statement. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ PricewaterhouseCoopers LLP
San Jose, California
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