UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

OR

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

Commission File Number 001-38701

SI-BONE, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware	**26-2216351**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

471 El Camino Real, Suite 101, Santa Clara, California 95050
(Address of principal executive offices including zip code)

Registrant's telephone number, including area code: (408) 207-0700

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

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock, par value $0.0001 per share	SIBN	The Nasdaq Global Market

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

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

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

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

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

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

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

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

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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

The aggregate market value of the shares of common stock held by non-affiliates of the registrant as of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, was approximately $443 million, calculated based on the closing price of the registrant's common stock as reported by the Nasdaq Global Market. Shares of common stock held by each officer and director, and each entity affiliated with a director, have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not a conclusive determination for other purposes.

The number of shares of Registrant's Common Stock outstanding as of February 23, 2023 was 34,985,640 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Definitive Proxy Statement relating to the Annual Meeting of Shareholders, which will be filed with the Securities and Exchange Commission within 120 days after the end of the Registrant's fiscal year ended December 31, 2022, are incorporated by reference into Part III of this Report.

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In this Annual Report on Form 10-K, "we," "our," "us," "SI-BONE," and "the Company" refer to SI-BONE, Inc. and its consolidated subsidiaries. The SI-BONE logo and other trade names, trademarks or service marks of SI-BONE are the property of SI-BONE, Inc. This report contains references to our trademarks and to trademarks belonging to other entities. Trade names, trademarks and service marks of other companies appearing in this report are the property of their respective holders. We do not intend our use or display of other companies' trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

RISK FACTOR SUMMARY

Investing in our securities involves a high degree of risk. Below is a summary of material factors that make an investment in our securities speculative or risky. Importantly, this summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, as well as other risks that we face, can be found under the heading "Item 1A. Risk Factors" below.

- We have incurred significant operating losses since inception, we expect to continue to incur operating losses in the future, and we may not be able to achieve or sustain future profitability;
- Prolonged inflation and supply chain disruptions could result in delayed product launches, lost revenue, higher costs and decreased profit margins;
- Disruptions in the supply of the materials and components used in manufacturing our products or the sterilization of our products by third-party suppliers could adversely affect our business, financial condition and results of operations;
- If hospitals, surgeons, and other healthcare providers are unable to obtain and maintain adequate or any coverage and reimbursement from third-party payors for procedures performed using our products, further adoption of our products may be delayed, and it is unlikely that they will gain further acceptance, and the prices paid for our implants may decline;
- If healthcare payors reverse decisions to cover minimally invasive sacroiliac joint fusion exclusively when performed with iFuse and choose to reimburse for procedures performed with competitive products, our market share could decline, adversely affecting our revenues;
- Epidemic diseases, or the perception of their effects, may continue to adversely affect our business, financial condition, results of operations, or cash flows***;***
- We may not be able to convince physicians that our products are attractive alternatives to our competitors' products and that our procedures are attractive alternatives to existing surgical and non-surgical treatments for their respective indications;
- Surgeons and payors may not find our clinical evidence to be compelling, which could limit our sales and revenue, and on-going and future research may prove our products to be less safe and effective than currently thought;
- Pricing pressure from our competitors, changes in third-party coverage and reimbursement, healthcare provider consolidation, payor consolidation and the presence of "physician-owned distributorships" may impact our ability to sell our product at prices necessary to support our current business strategies;
- Practice trends or other factors, including the COVID-19 pandemic, have caused, and may continue to cause, procedures to shift from the hospital environment to ambulatory surgical centers, or ASCs, where pressure on the prices of our products is generally more acute;
- We operate in a very competitive business environment and if we are unable to compete successfully against our existing or potential competitors, our sales and operating results may be adversely affected;
- We are highly dependent on revenue from the sale of a single family of products focused on procedures, the goal of which is to stabilize and fuse the sacroiliac joint. Reliance on a single family of products and single family of procedures could negatively affect our results of operations and financial condition;
- If clinical experience with our iFuse Bedrock technique or iFuse Bedrock Granite does not result in positive outcomes for patients, or if clinical trials involving the use of iFuse Bedrock and/or iFuse Bedrock Granite fail to show meaningful patient benefit, sales of our iFuse, iFuse-3D, iFuse-TORQ and/or iFuse Bedrock Granite implants could be adversely impacted;
- If we are unable to maintain our network of direct sales representatives and third-party distributors, we may not be able to

generate anticipated sales;

- Our business could suffer if we lose the services of key members of our senior management, key advisors or personnel;
- If use of our products results in adverse events, this may require them to be taken off the market, require them to include safety warnings or otherwise limit their sales;
- Various factors outside our direct control may adversely affect manufacturing, sterilization, and distribution of our products;
- We are dependent on a limited number of third-party suppliers, some of them single-source and some of them in single locations, for most of our products and components, and the loss of any of these suppliers, or their inability to provide us with an adequate supply of materials in a timely and cost-effective manner, could materially adversely affect our business;
- We, our suppliers, and our third-party manufacturers are subject to extensive governmental regulation both in the U.S. and abroad, and failure to comply with applicable requirements could cause our business to suffer;
- We and our sales representatives must comply with U.S. federal and state fraud and abuse laws, including those relating to healthcare provider kickbacks and false claims for reimbursement, and other applicable federal and state healthcare laws, as well as equivalent foreign laws, and failure to comply could negatively affect our business; and
- If we or our licensors fail to adequately protect or enforce our intellectual property rights or secure rights to patents of others, the value of our intellectual property rights would diminish and our ability to successfully commercialize our products may be impaired.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “contemplate,” “believe,” “estimate,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions, although not all forward-looking statements contain these identifying words. These forward-looking statements speak only as of the date of this Annual Report on Form 10-K and are subject to a number of risks, uncertainties and assumptions, including those described under the sections in this Annual Report on Form 10-K entitled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” These forward-looking statements include, but are not limited to, statements about the following:

- the impact the COVID-19 pandemic and governmental actions taken to combat the COVID-19 pandemic will have on us, including our operations, financial results, liquidity and capital resources, the ability and desire of patients and physicians to undergo and perform such procedures, the duration and any potential resurgence of the COVID-19 pandemic, and whether the COVID-19 pandemic will recur in the future;
- the impact the COVID-19 pandemic has on the global supply chain and our third-party manufacturers and suppliers, which could adversely impact the availability or cost of materials, which could disrupt our supply chain related to implants and instruments.
- our ability to maintain a healthy workforce in light of the ongoing COVID-19 pandemic;
- our expectation that a significant portion of our revenues will be derived from sales of the iFuse Implant System, or iFuse;
- our ability to develop and commercialize additional revenue opportunities, including new indications for use and new devices;
- our ability to retain and grow our sales team based on the demand for our products;
- our ability to identify, train, and retain surgeons to perform procedures using our products;
- our ability to obtain and maintain favorable coverage and reimbursement determinations from third-party payors;
- our estimates of our market opportunity;
- our expectations regarding the scope of protection from intellectual property rights covering our products;

- developments or disputes concerning our intellectual property or other proprietary rights;
- timing of and results from clinical and other trials;
- marketing clearances and authorization from the FDA and regulators in other jurisdictions;
- timing of regulatory filings and feedback;
- competition in the markets we serve;
- our expectations of the reliability and performance of our products;
- our expectations of the benefits to patients, providers, and payors of our products;
- factors impacting the supply chains we rely on, including the availability of raw materials and skilled labor serving our suppliers, and the cost of these factors of production which may in turn impact the prices we pay for our devices;
- our reliance on a limited number of suppliers, including sole source suppliers, which may impact the availability of instruments and materials;
- our ability to sustain or increase demand for our products;
- our estimates regarding our costs and risks associated with our international operations and expansion;
- our expectations regarding our ability to retain and recruit key personnel;
- our ability to attract and retain employees, including those with specialized skills and experience;
- our expectations regarding acquisitions and strategic operations;
- our ability to access capital markets;
- our ability to fund our working capital requirements;
- our compliance with, and the cost of, federal, state, and foreign regulatory requirements;
- the factors that may impact our financial results; and
- anticipated trends and challenges in our business and the markets in which we operate.

Forward-looking statements are based on management's current expectations, estimates, forecasts, and projections about our business and the industry in which we operate, and management's beliefs and assumptions are not guarantees of future performance or development and involve known and unknown risks, uncertainties, and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this report may turn out to be inaccurate. Furthermore, if the forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Annual Report on Form 10-K, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Factors that may cause actual results to differ materially from current expectations include, among other things, those listed under "Risk Factors" and elsewhere in this report. These statements, like all statements in this report, speak only as of their date. We caution investors that our business and financial performance are subject to substantial risks and uncertainties. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future, except as may be required by law.

PART I

Item 1. Business.

Overview

We are a medical device company dedicated to solving musculoskeletal disorders of the sacropelvic anatomy. Leveraging our knowledge of pelvic anatomy and biomechanics, we have pioneered proprietary minimally invasive surgical implant systems to address sacroiliac joint dysfunction as well as address unmet clinical needs in pelvic fusion, fixation and management of pelvic fractures. Our products include a series of patented titanium implants and the instruments used to implant them. Since launching our first generation iFuse in 2009, we have launched three new implant product lines, iFuse-3D in 2017, iFuse-TORQ in 2021 and iFuse Bedrock Granite in 2022. Within the United States, our iFuse, iFuse-3D and iFuse-TORQ implant systems have clearances for applications across sacroiliac joint dysfunction and fusion, adult deformity and degeneration, and pelvic trauma.

We market our products primarily with a direct sales force as well as a number of agents in the U.S., and with a combination of a direct sales force, agents and distributors in other countries. As of December 31, 2022, more than 75,000 procedures have been performed using our products by over 3,000 surgeons in the United States and 38 other countries since we introduced iFuse in 2009.

Product and Applications

Our first-generation iFuse, a machined triangular titanium implant launched in 2009, has a triangular cross section that resists twisting or rotation of the implant. The triangular shape of this implant helps stabilize the joint, and the implant’s porous surface facilitates biologic fixation of the bone onto the implant, or bony on-growth and in-growth that results in fusion. The implant has at least three times the strength of a typical eight-millimeter cannulated surgical screw, and the large porous surface area of our implants allows for bony ingrowth. Our second generation iFuse product, the iFuse-3D implant, launched in 2017, is a patented titanium implant that combines the triangular cross-section of the first generation iFuse implant with a proprietary 3D-printed porous surface and fenestrated design. This design, with its open and porous structure, also allows the implant to self-harvest bone as it is impacted through the ilium. We hold patents on implants with cross-sections of many non-round shapes, including the triangular shape, as well as the fenestration configuration we use with our iFuse-3D implants. We also hold patents for the method of placing the implant across the sacroiliac joint, as well as other parts of the spine and pelvis.

In April 2019, we received clearance from the United States Food and Drug Administration, or FDA, to promote the use of our iFuse-3D implants for fusion of the sacroiliac joint in conjunction with multi-level spinal fusion procedures to provide further stabilization and immobilization of the sacroiliac joint, which we call the Bedrock technique. We received CE marking and began marketing iFuse for this indication and surgical technique in Europe in December 2019. In late-2019, we introduced iFuse Bone, an implantable bone product manufactured from sterilized recovered cadaveric bone tissue, to meet the demand of some of our surgeon customers to use implantable bone products to support and augment the patient's own bone tissue in orthopedic procedures. In March 2020, we received FDA 510(k) clearance for an expanded indication for our triangular iFuse implants to support our trauma initiative.

In February 2021, we launched iFuse-TORQ, a line of 3D-printed threaded implants designed for use in pelvic trauma, as well as applications in sacroiliac joint dysfunction and degeneration. Relative to competitive trauma products, iFuse-TORQ is roughly four times as strong in bending and requires 10 times the rotational force, or torque, to insert due to its porosity and other design features. We believe that this rotational resistance gives surgeons confidence in the strength of mechanical fixation that iFuse-TORQ provides, and that the technological advancements incorporated into iFuse-TORQ represent a significant improvement compared to conventional trauma screws. iFuse-TORQ has a larger surface area for bone in-growth and was specifically designed to allow for osteointegration, or incorporation of the bone in the implant's porous surface and structure. In 2022, the FDA provided clearance for an expanded indication for iFuse-TORQ to include acute, non-acute and non-traumatic fractures as well as for placement across the sacroiliac joint using our Bedrock technique.

In May 2022, we launched our iFuse Bedrock Granite Implant System. The iFuse Bedrock Granite implant provides sacroiliac fusion and sacropelvic fixation as a foundational element for segmental spinal fusion. The iFuse Bedrock Granite implant has a machined titanium core surrounded by a fusion sleeve that is additively manufactured. The fusion sleeve offers greater surface area for both microporous and macroporous surface features as well as self-harvesting cutting flutes. The fusion sleeve provides numerous means for biological fixation (bony on-growth, in-growth and through-growth). The robust neck and the set screw design also provide more strength and reliability to the iFuse Bedrock Granite implant. Based on the implant's ability to drive fusion and fixation, iFuse Bedrock Granite is designated by the FDA as a breakthrough device. In August 2022, the Centers for Medicare and Medicaid Services, or CMS, issued a final decision for a New Technology Add-on Payment, or NTAP, of up to $9,828 for eligible cases using iFuse Bedrock Granite. The Breakthrough Device Designation and NTAP award were based on the FDA's recognition of iFuse Bedrock Granite as a new technology that can provide substantial clinical improvement over already available therapies. The NTAP became effective October 1, 2022 and will be effective for a period of up to three years and is exclusive to iFuse Bedrock Granite. In December 2022, we received FDA clearance for promotion of general rod compatibility for iFuse Bedrock Granite.

In addition to our implants and instruments, we also provide enabling technologies that are cleared and compatible with Medtronic's surgical navigation systems and Medtronic Mazor surgical robots. We also market decortication and graft delivery systems that allow surgeons to remove intra-articular cartilage and deliver flowable bone graft materials to the SI joint.

Market Opportunity

As a sacropelvic solutions company, our products have applications across sacroiliac joint dysfunction and degeneration, spinopelvic fixation, and pelvic fractures. We estimate that our total addressable market in the United States is approximately $3.0 billion.

Sacroiliac Joint Dysfunction and Degeneration

Over 30 million American adults are estimated to have chronic lower back pain. Studies indicate that 15% to 30% of patients with chronic low back pain may have symptoms originating with the sacroiliac joint. Our experience in both clinical trials and commercial settings indicates that at least 30% of these patients may be candidates for surgical treatment with our implants. Based on our market experience and internal estimates, and the assumption that the average person suffering from sacroiliac joint dysfunction has been in pain for five years, we estimate that the potential market for sacroiliac joint fusion in the United States could be approximately 279,000 patients for a potential annual market in the United States of approximately $2.4 billion.

Sacroiliac joint patients may have experienced one or more events that have contributed to disruption and/or degeneration of the sacroiliac joint, such as pregnancy, falls, previous lumbar surgery, automobile accidents, and aging, which may cause degeneration of the cushioning in the joint much like other joints. Patients with sacroiliac joint dysfunction frequently experience significant pain simply from sitting, standing, or rolling over in bed. The pain can be exacerbated with activity - when a patient walks or runs. We believe that approximately 65% of people who suffer from sacroiliac pain are women. Although several non-surgical treatments exist for sacroiliac joint pain, including physical therapy, opiates and non-steroidal anti-inflammatory medications, intra-articular injection of steroid medications and radio frequency ablation, these treatments did not provide long-term pain or disability relief in our randomized controlled clinical trials.

Adult Deformity and Degeneration

To strengthen the base of spinal constructs, spine surgeons have been using longer and larger diameter pedicle screws in iliac and sacro-alar iliac trajectories. Third party data has shown that the use of pedicle screws to anchor to the pelvis has delivered sub-optimal patient outcomes resulting in revision surgeries. Acute set screw failure of sacro-alar iliac screws has been reported in approximately 5% of cases. Screw loosening within the sacrum/ilium is another common failure, occurring in 4-27% of cases and screw fracture has been reported in up to 20% of cases. Building on our experience with the Bedrock technique which we introduced in 2019, we introduced iFuse Bedrock Granite, a novel, patent-protected device designed for the specific demands of the sacro-pelvic anatomy at the end of spinal fusion constructs. We believe there are over 30,000 surgeries involving fixation of five or more spinal segments that involve fixation to the pelvis, which we estimate to be an approximately $250 million annual market opportunity.

Pelvic Trauma

Current treatment options for pelvic fragility fractures are sub-optimal. Sacroplasty has high rates of cement leakage and therefore lacks consistent coverage by payors. Traditional trauma screws do not integrate with bone and therefore loosen in more than 20% of the cases in which they are used. As a result, most patients are prescribed bed-rest, involving significant capacity and financial burdens on the health care system, and a one-year mortality rate range of 14%-27%. With the introduction of iFuse-TORQ in 2021, we are specifically targeting the pelvic trauma market, which we estimate to be an approximately $350 million market opportunity.

Clinical Evidence

Our triangular iFuse implants are the only minimally invasive products for sacroiliac joint fusion commercially available in the United States that, to our knowledge, are supported by substantial high-quality published evidence of safety, clinical effectiveness, durability, and economic utility. The safety, effectiveness and cost-effectiveness of our triangular iFuse implants are supported by more than 100 publications and several large prospective clinical studies, including two randomized trials, two large prospective multicenter trials and one long-term follow-up study. Additional long-term independent studies have reported follow-up data as far out as six years.

INSITE

Investigation of Sacroiliac Fusion Treatment (“INSITE”) is a prospective randomized controlled trial conducted in the US. 148 patients with chronic SI joint pain were randomly assigned to immediate SI joint fusion using iFuse implants or individually tailored non-surgical management. In the SI joint fusion group, large improvements were seen in pain, disability related to pain and quality of life. In contrast, in the control group, only small, clinically unimportant improvements in these parameters were observed. Moreover, after six months, more than 90% of subjects still participating in the non-surgical group decided to cross over to SI joint fusion surgery, indicating that non-surgical treatment provided ineffective relief of pain and disability related to pain. Two-year follow-up, published in International Journal of Spine Surgery in August 2016, showed sustained improvements in pain, disability and quality of life in the surgery group, with high levels of satisfaction. An embedded cost-effectiveness analysis within INSITE, *Clinicoeconomics and Outcomes Research* in December 2015, showed the procedure to be highly cost-effective for the treatment of chronic SI joint pain.

iMIA

iMIA iFuse Implant System Minimally Invasive Arthrodesis (“iMIA”) is a second prospective, randomized controlled trial of sacroiliac joint fusion using iFuse compared to non-surgical management with a design very similar to that of INSITE. iMIA was conducted at nine centers in Europe. Results, published in *Journal of Bone and Joint Surgery* in March 2019, were very similar to INSITE, with large, clinically important and statistically significant improvements in the SI joint fusion group and very few, clinically unimportant changes in the non-surgical control group. Improvements in the surgery group were sustained at 24 months.

SIFI

Sacroiliac Joint Fusion with iFuse Implant System (“SIFI”), is a prospective, multicenter single-arm clinical trial conducted at 26 centers in the U.S. Eligibility criteria and endpoints were identical to INSITE. Results from SIFI, published in *International Journal of Spine Surgery* in April 2016, showed marked, immediate and sustained improvements in pain, disability and quality of life similar to the above two studies. Like the other studies, improvements were sustained at 24 months.

LOIS

Subjects participating in INSITE and SIFI were enrolled in a long-term follow-up study (“LOIS”). Five-year results, published in Medical Devices Evidence and Research in April 2018, showed sustained improvements in pain, disability and quality of life as well as a high satisfaction rate. Moreover, independent radiographic analysis showed a high rate of bony apposition to implants on both the sacral and iliac sides (98%) as well as a high rate of SI joint fusion (88% bridging bone) at five years. There were no reported adverse events related to the study device or procedure at five years.

SALLY

Study of Bone Growth in the Sacroiliac Joint After Minimally Invasive Surgery with Titanium Implants (“SALLY”) is another prospective single-arm clinical study of the same patient population (chronic SI joint pain) who underwent SI joint fusion using iFuse-3D. Two-year results, published in Medical Devices Evidence and Research in June 2021, showed similar improvements in pain, disability and quality of life compared to prior studies of iFuse-3D as well as CT evidence of earlier fusion of the SI joint. The study also showed marked reduction in opioid use and improvement in objective functional tests. The five year follow-up is starting and expected to be completed in late 2024.

SILVIA

SI Joint Stabilization in Long Fusion to the Pelvis: Randomized Controlled Trial (“SILVIA”) is an ongoing prospective randomized trial of iFuse-3D placement during multilevel spine fusion with fixation to the pelvis. The target patient population of this trial is patients undergoing multilevel spine fusion surgery primarily for degenerative scoliosis of the spine. All participants undergo pelvic fixation. At random, approximately 50% of participants are assigned to additional placement of iFuse-3D in the sacro-alar-iliac trajectory using the Bedrock technique. The goal of this study is to show that placement of iFuse-3D in the Bedrock configuration reduces the rate of postoperative SI joint pain and improves the longevity of pelvic fixation hardware, failures of which are fairly common. Enrollment in this trial was completed in 2022 and follow-up is on going. Long-term results are expected to be completed in 2024.

SAFFRON

We are currently enrolling subjects in Sacral Fracture Fusion/Fixation for Rapid Rehabilitation ("SAFFRON"), a prospective randomized controlled trial comparing pelvic fracture fixation and SI joint fusion using our iFuse-TORQ device with non-surgical management in patients with debilitating sacral fragility or insufficiency fractures. We anticipate results to be available in late 2024.

Other Published Clinical Studies

To date, several independent clinical studies have provided evidence to support the long-term safety and effectiveness of iFuse for SI joint fusion. These studies demonstrated pain reduction and/or ODI improvement that is statistically significant and clinically important and a safety profile that was similar to that observed in prospective studies. One study showed marked reduction in opioid use after SI joint fusion compared to similar subjects who underwent non-surgical treatment, and in whom opioid use increased.

Coverage and Reimbursement

Coverage and reimbursement for procedures using our implants vary by setting of care, payor type and region. Outside the United States, reimbursement levels vary significantly by country and by region within some countries.

In addition to coverage policies, third-party payors regularly update reimbursement amounts and sometimes revise the methodologies used to determine reimbursement amounts. This includes annual updates to payments to physicians, hospitals and ambulatory surgical centers for procedures requiring our products.

Substantially all U.S. payors reimburse for sacroiliac joint fusion, and a significant number of U.S. payors have issued positive coverage policies exclusive to our patented design of triangular titanium implants for sacroiliac joint fusion because of the clinical evidence. We believe that it generally takes between six and 24 months for a surgeon to fully incorporate sacroiliac joint diagnosis and treatment into his or her practice after payors initiate coverage and the surgeon is trained. We believe that the coverage and reimbursement for our procedures is generally adequate given the time and complexity of our procedures.

Healthcare Professional Training and Education

Since our inception, we have made considerable investments in teaching healthcare professionals to accurately diagnose sacroiliac joint disorders. Our surgeon training programs are for orthopedic spine surgeons, neurosurgeons, general orthopedic surgeons, and orthopedic trauma surgeons. Our medical affairs team works with leading spine surgeons to educate other orthopedic and neurosurgeons on the differential diagnosis of sacroiliac joint disorders and the use of our implants. We also work closely with medical specialty societies to raise the awareness of and teach the appropriate diagnosis of sacroiliac joint dysfunction and the associated treatment options.

We conduct many educational programs for the broader medical community including, primary care physicians, pain management physicians and other healthcare practitioners that may manage a sacroiliac joint patient non-surgically, such as physical therapists and chiropractors. Our educational programs are focusing on helping healthcare professionals learn about the sacroiliac joint as a component of lower back pain, proper diagnosis of SI joint dysfunction, non-surgical treatment options and surgical treatment with our implants. In addition to these general educational programs, we provide continuing education programs focused on SI joint diagnosis and treatment. We can provide these programs in all 50 states and the District of Columbia.

In early 2020, we implemented a virtual education series for surgeons and mid-level practitioners. In July 2020, we began using the SI-BONE SImulator; an innovative, fully portable surgeon training simulator. The computer-based surgeon training simulator provides quality haptics, or the realistic feel during the surgeon's use of the implants and instruments, and the training is performed without need for an operating room or a fluoroscope. The simulator is used to train surgeons to perform SI joint injections, sacroiliac joint fusions as well as iFuse Bedrock technique using iFuse-3D and iFuse-TORQ and procedures using iFuse Bedrock Granite. We currently have 25 simulators used worldwide. We utilize the simulators and our existing programs to train new surgeons, increase the knowledge and proficiency of existing iFuse surgeons and re-engage inactive surgeons.

As of December 31, 2022 and 2021, in the U.S., more than 2,200 surgeons and 1,800 surgeons, respectively, have been trained on our products and have treated at least one patient. Outside the U.S., as of December 31, 2022 and 2021, more than 800 surgeons and 700 surgeons, respectively, have been trained on iFuse and have treated at least one patient. We will continue to pursue the remainder of the approximately 5,300 target surgeons in the United States, as well as international surgeons, for training in the future.

Sales and Marketing

We market and sell our implants primarily through a direct sales force and third-party distributors. Our target customer base includes approximately 7,500 surgeons who perform spine and/or pelvic surgery, including orthopedic spine surgeons, neurosurgeons, general orthopedic surgeons, and orthopedic trauma surgeons.

Our direct sales organization in the United States covered eighteen sales regions as of December 31, 2022. In each region, a number of territory sales managers act as the primary customer contact. Our territory sales managers have extensive training and experience selling medical devices for spine problems and pain management, generally focusing on emerging technologies and markets. For large and/or high volume territories, we also employ territory representatives who cover cases. As of December 31, 2022, our U.S. sales force consisted of 88 territory sales managers and 73 clinical specialists directly employed by us, and 105 third-party distributors. As of December 31, 2022, we had 35 employees working in our European operations across multiple countries. As of December 31, 2022, our international sales force consisted of 18 sales representatives directly employed by us and 30 third-party distributors, which together had sales in 38 countries through December 31, 2022. We intend to continue to grow our specialized sales force to foster relationships with surgeons and support revenue growth.

We believe it is essential to raise awareness among lower back pain sufferers that their symptoms may be the result of sacroiliac joint disorders and that minimally invasive surgical treatments are available. To raise patient awareness, we have implemented targeted marketing, education and direct outreach programs. We continually update our social media initiatives and post content to educate and engage patients who may be candidates for our procedures. We plan to make additional investments to further increase patient awareness, primarily through digital marketing, including paid search, display advertising, social media and public relations.

Research and Development

We remain focused on the development of products and techniques to help surgeons improve the treatment of their patients and anticipate continuing to build products and pursue additional indications. Our development team, in consultation with surgeons, has a pipeline of products in various stages to provide solutions that respond to the needs of our surgeon customers and their patients. We plan to seek regulatory clearances for additional indications as required. We anticipate that research and development expenses will continue to increase in the future.

Competition

We believe we are an industry leader in solving musculoskeletal disorders of the sacropelvic anatomy with our proprietary minimally invasive surgical implant systems. Over the past several years, other companies have subsequently recognized the multi-billion addressable market opportunity and have entered the minimally invasive sacroiliac joint fusion market. We expect more competitors to enter into the market and an increased number of new product introductions by existing competitors. Many of our competitors are large, publicly traded companies that can dedicate far greater resources to the minimally invasive sacroiliac joint market than we can. These companies often have wide product offerings for spine and orthopedic surgery, which allow them to bundle products in order to win large hospital group contracts and can create a barrier to entry for us. For example, some of our competitors offer sacroiliac joint fusion products which integrate with their surgical navigation and robotics platforms, enabling navigation of their procedures or performance of aspects of these procedures by surgical robots. Many of these companies also have much larger sales forces than ours, which allow them to reach more surgeons. Other competitors have entered the market with allograft bone implants marketed as human tissue products and intended for sacroiliac stabilization and/or fusion. Many of these competitors are smaller companies and target interventional pain and other physicians not trained as orthopedic and neurological surgeons for use of these products. We also expect there to be a continued push for non-surgical alternatives.

In the United States, we believe that our primary competitors currently are Globus Medical, Inc. and Medtronic plc. Our primary competitors in Europe are Globus Medical and SIGNUS Medizintechnik GmbH. However, these competitors sell screw-based products, which we believe lack the features, evidence and advantages of our implants. We also compete against non-hardware products, such as allograft bone implants. These allograft products comprise human cells or tissues and are generally regulated by the FDA differently from implantable medical devices made of metallic or other non-tissue based materials, unless these competitors' allograft products fail to meet the FDA's criteria for regulation as a human cell or tissue product.

Based on our commercial experience and market research, we believe our implants are currently used in the majority of minimally invasive surgical fusions of the sacroiliac joint in the United States. Our triangular titanium implant is differentiated from other screw-based technologies on the market. Our triangular iFuse is the only minimally invasive product for sacroiliac joint fusion commercially available in the United States that, to our knowledge, is supported by published clinical evidence including randomized controlled studies that demonstrate the safety, clinical effectiveness, durability, and economic utility. These benefits are supported by more than 100 published papers. We have received exclusive reimbursement coverage in the United States by certain payors based upon our differentiated product and quality of our evidence. We believe these factors provide competitive advantages to us in the market. The following are the primary competitive factors on which companies compete in our industry:

- product and clinical procedure effectiveness;
- ease of surgical technique and use of associated instruments;
- safety;
- published clinical outcomes and evidence;
- sales force effectiveness;
- product support and service, and customer service;
- comprehensive training, including disease, anatomy, diagnosis and treatment;
- product innovation and the speed of innovation;
- intellectual property;
- accountability and responsiveness to customers' demands;
- scientific (biomechanics) data; and
- pricing and reimbursement.

Intellectual Property

We protect our intellectual property through our pending patent applications and issued patents. As of December 31, 2022, we had been issued 51 issued U.S. patents and had 32 pending U.S. patent applications, and we owned 16 issued foreign patents and had 18 pending foreign patent applications. We have focused the majority of our foreign patent efforts in China, Europe, and Japan. Our current U.S. patents on iFuse, including the triangular shape, expire in November 2024. Competitors may market similar triangular shaped devices upon the expiration of the patents in late 2024. Our current U.S. patents on iFuse-3D, including the fenestrated design, expire in September 2035. Our foreign patents will expire between August 2025 and September 2035.

As of December 31, 2022, we have 19 registered trademarks in the United States and have filed for four more. We have sought protection for at least two of these trademarks in 60 countries including the 27 European member countries of the Madrid Protocol.

We also rely upon trade secrets, know-how and continuing technological innovation, and may rely upon licensing opportunities in the future, to develop and maintain our competitive position. We may seek to protect our proprietary rights through a variety of methods, including confidentiality agreements and proprietary information agreements with suppliers, employees, consultants and others who may have access to proprietary information, under which they are bound to assign to us inventions made during the term of their agreements.

The term of individual patents depends on the legal term for patents in the countries in which they are granted. In most countries, including the United States, the patent term is generally 20 years from the earliest claimed filing date of a non-provisional patent application in the applicable country. There can be no assurance that patents will be issued 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. Notwithstanding the scope of the patent protection available to us, a competitor could develop treatment methods or devices that are not covered by our patents but that compete with our proprietary technology and products. Furthermore, numerous U.S. and foreign issued patents and patent applications owned by third parties exist in the fields in which we are developing products. Because patent applications can take many years to issue, there may be applications currently unknown to us, which may later result in issued patents that our existing or future products or proprietary technologies may be alleged and/or found to infringe.

There has been substantial litigation regarding patent and other intellectual property rights in the medical device industry. In the future, we may need to engage in litigation to enforce patents issued or licensed to us, to protect our trade secrets or know-how and brands, to defend against claims of infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. Litigation could be costly and could divert our attention from other functions and responsibilities. Adverse determinations in litigation could reduce the barriers to entry that we have established for iFuse, or subject us to significant liabilities to third parties, require us to seek licenses from third parties or prevent us from manufacturing, selling or using iFuse, any of which could severely harm our business.

Regulation

Domestic Regulation of Our Products and Business

Our research, development and clinical programs, as well as our manufacturing and marketing operations, are subject to extensive regulation in the United States and other countries. Most notably, all of our products sold in the United States are subject to the Federal Food, Drug, and Cosmetic Act ("FDCA") as implemented and enforced by the FDA. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources. The FDA governs the following activities that we perform or that are performed on our behalf, to ensure that medical products distributed domestically or exported internationally are safe and effective for their intended uses:

- product design, research, development, and manufacture;
- product safety, testing, labeling, and storage;
- record keeping procedures;
- product marketing, promotion, advertising, sales, distribution, export, and import; and
- post-marketing surveillance, complaint handling, medical device reporting, reporting of deaths, serious injuries or device malfunctions, and repair or recall of products.

There are numerous FDA regulatory requirements governing the clearance or approval and marketing of our products. These include:

- product listing and establishment registration, which helps facilitate FDA inspections and other regulatory action;
- investigational device exemptions to conduct premarket clinical trials, which include extensive monitoring, recordkeeping, and reporting requirements;
- Quality System Regulation ("QSR"), which requires manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation and other quality assurance procedures during all aspects of the manufacturing process;
- labeling regulations and FDA prohibitions against the promotion of products for uncleared, unapproved or off-label use or indication;
- clearance of product modifications that could significantly affect safety or effectiveness or that would constitute a major change in intended use of one of our cleared devices;
- approval of product modifications that affect the safety or effectiveness of one of our approved devices;
- medical device reporting regulations, which require that manufacturers comply with FDA requirements to report if their device may have caused or contributed to a death or serious injury, or has malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction of the device or a similar device were to recur;
- post-approval restrictions or conditions, including post-approval study commitments;
- post-market surveillance regulations, which apply when necessary to protect the public health or to provide additional safety and effectiveness data for the device;
- the FDA's recall authority, whereby it can ask, or under certain conditions order, device manufacturers to recall from the market a product that is in violation of governing laws and regulations;
- regulations pertaining to voluntary recalls; and
- notices of corrections or removals.

FDA Premarket Clearance and Approval Requirements

Unless an exemption applies, each medical device we wish to commercially distribute in the United States will require either premarket notification, or 510(k), clearance or approval of a pre-market approval ("PMA") from the FDA. The FDA classifies medical devices into one of three classes. Devices deemed to pose lower risks are placed in either Class I or II, which typically requires the manufacturer to submit to the FDA a premarket notification requesting permission to commercially distribute the device. This process is generally known as 510(k) clearance. Some low risk devices are exempted from this requirement. Devices deemed by the FDA to pose the greatest risks, such as life-sustaining, life-supporting or implantable devices, or devices deemed not substantially equivalent to a previously cleared 510(k) device, are placed in Class III, requiring a PMA.

Class I devices are those for which safety and effectiveness can be assured by adherence to FDA's "general controls" for medical devices, which include compliance with the applicable portions of the FDA's Quality System Regulation, or QSR, facility registration and product listing, reporting of adverse medical events, and appropriate, truthful and non-misleading labeling, advertising, and promotional materials. Some Class I devices also require premarket clearance by the FDA through the 510(k) premarket notification process described below.

Class II devices are subject to FDA's general controls, and any other "special controls" deemed necessary by 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 procedure, though certain Class II devices are exempt from this premarket review process. When a 510(k) is required, the manufacturer must submit to the FDA a premarket notification 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 may place the device, or the particular use of the device, into Class III, and the device sponsor must then fulfill much more rigorous premarketing requirements.

Class III devices, consisting of devices deemed by the FDA to pose the greatest risk, such as life-sustaining, life-supporting or implantable devices, or devices deemed not substantially equivalent to a predicate device. The safety and effectiveness of Class III devices cannot be assured solely by general or special controls. Submission and FDA approval of a premarket approval, or PMA, application is required before marketing of a Class III device can proceed. As with 510(k) submissions, unless subject to an exemption, PMA submissions are subject to user fees. The PMA process is much more demanding than the 510(k) premarket notification process. A PMA application, which is intended to demonstrate that the device is safe and effective, must be supported by extensive data, typically including data from preclinical studies and human clinical trials.

510(k) Clearance

To obtain 510(k) clearance for a medical device, an applicant must submit to the FDA a premarket notification 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 device that was legally marketed prior to May 28, 1976 for which a PMA is not required (known as a "pre-amendments device" based on the date of enactment of the Medical Device Amendments of 1976), 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 before the FDA will proceed with additional review of the submission. By regulation, the FDA has 90 days from acceptance of the 510(k) submission for review to review and issue a determination. As a practical matter, clearance often takes longer. The FDA may require additional information, including clinical data, to make a determination regarding substantial equivalence.

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, if the modification changes the classification of the product to Class III, 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) 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) clearance is obtained. The manufacturer may also be subject to significant regulatory fines or penalties.

Regulation of Human Cell and Tissue Based Products

Our iFuse Bone products are derived from human tissue (demineralized bone tissue). The FDA has specific regulations governing human cells, tissues, and cellular and tissue-based products ("HCT/Ps"). HCT/Ps regulated by the FDA under the authority of section 361 of the Public Health Service Act must be not more than minimally manipulated and be for homologous use. They are subject to requirements relating to registering facilities and listing products with the FDA, screening and testing for tissue donor eligibility, Good Tissue Practice when processing, storing, labeling and distributing HCT/Ps, including required labeling information, stringent record keeping and adverse event reporting. Our bone tissue products are regulated as 361 HCT/Ps.

The AATB has issued operating standards for tissue banking. Accreditation is voluntary, but compliance with these standards is a requirement to become an AATB-accredited tissue establishment. In addition, some states have their own tissue banking regulations. We are licensed or have permits for tissue banking in California, Florida, New York, Maryland, and other states that require specific licensing or registration.

Procurement of certain human organs and tissue for transplantation is subject to the restrictions of the National Organ Transplant Act (NOTA), which prohibits the transfer of certain human organs, including bone tissue for valuable consideration, but permits reasonable payments associated with removal, transportation, implantation, processing, preservation, quality control and storage.

Clinical Trials

Clinical trials are generally required to support a PMA application and are sometimes required for 510(k) clearance. Such trials for implanted devices such as iFuse generally require an investigational device exemption application (“IDE”), approved in advance by the FDA for a specified number of subjects and study sites, unless the product is deemed a nonsignificant risk device eligible for more abbreviated IDE requirements. Clinical trials are subject to extensive monitoring, recordkeeping and reporting requirements. Clinical trials must be conducted under the oversight of an institutional review board (“IRB”), and the relevant clinical trial sites and must comply with FDA regulations, including but not limited to those relating to good clinical practices. To conduct a clinical trial, we also are required to obtain the subjects’ informed consent in form and substance that complies with both FDA requirements and state and federal privacy and human subject protection regulations. We, the FDA, or the IRB, could suspend 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 trial is completed, the results of clinical testing may not adequately demonstrate the safety and effectiveness of the device or may otherwise not be sufficient to obtain FDA clearance or approval to market the product in the United States. Similarly, in Europe the clinical study must be approved by a local ethics committee and in some cases, including studies with high- risk devices, by the ministry of health in the applicable country.

Pervasive and Continuing Regulation

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

- Product listing and establishment registration, which helps facilitate FDA inspections and other regulatory action;
- QSR, which requires manufacturers, including third-party manufacturers, to follow stringent design, testing, control, documentation, and other quality assurance procedures during all aspects of the manufacturing process;
- labeling regulations and FDA prohibitions against the promotion of products for uncleared, unapproved or off-label use or indications;
- clearance of product modifications that could significantly affect safety or effectiveness or that would constitute a major change in intended use of one of our cleared devices;
- approval of product modifications that affect the safety or effectiveness of one of our approved devices;
- medical device reporting regulations, which require that manufacturers comply with FDA requirements to report if their device may have caused or contributed to a death or serious injury, or has malfunctioned in a way that would likely cause or contribute to a death or serious injury if the malfunction of the device or a similar device were to recur;
- post-approval restrictions or conditions, including post-approval study commitments;

- post-market surveillance regulations, which apply when necessary to protect the public health or to provide additional safety and effectiveness data for the device;
- the FDA's recall authority, whereby it can ask, or under certain conditions order, device manufacturers to recall from the market a product that is in violation of governing laws and regulations;
- regulations pertaining to voluntary recalls; and
- notices of corrections or removals.

We have registered our facility with the FDA as a medical device manufacturer. The FDA has broad post-market and regulatory enforcement powers. We are subject to announced and unannounced inspections by the FDA to determine our compliance with the QSR and other regulations, and these inspections may include the manufacturing facilities of some of our subcontractors. Failure by us or by our suppliers to comply with applicable regulatory requirements can result in enforcement action by the FDA or other regulatory authorities, which may result in sanctions including, but not limited to:

- 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 products;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying our requests for 510(k) clearance or PMA approval of new products or modified products;
- operating restrictions;
- withdrawing 510(k) clearances or PMA approvals that have already been granted;
- refusal to grant export approval for our products; or
- criminal prosecution.

Promotional Materials - "Off-Label" Promotion

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. If the FDA determines that our promotional materials or training constitutes promotion of an unapproved use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine, or criminal penalties. It is also possible that other federal, state, or foreign enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement. In that event, we could be subject to additional significant penalties, such as exclusion from participation in federal healthcare programs, and our reputation could be damaged and adoption of the products would be impaired.

In addition, under the federal Lanham Act and similar state laws, competitors, and others can initiate litigation relating to advertising claims.

International Regulation of Our Products

Our research, development and clinical programs, as well as our manufacturing and marketing operations, are subject to extensive regulation in other countries. For example, in the European Economic Area ("EEA") our devices are currently required to comply with the Medical Device Regulation (Regulations 2017/745) in the EU Member States, Iceland, Lichtenstein and Norway. The Medical Device Regulation is, among other things, intended to establish a uniform, transparent, predictable and sustainable regulatory framework across the EEA for medical devices and ensure a high level of safety and health while supporting innovation. The Medical Device Regulation, among other things:

- strengthens the rules on placing medical devices on the market and reinforce surveillance once they are available;
- establishes explicit provisions on manufacturers' responsibilities for the follow-up of the quality, performance and safety of devices placed on the market;

- improves the traceability of medical devices throughout the supply chain to the end-user or patient through a unique identification number;
- sets up a central database to provide patients, healthcare professionals and the public with comprehensive information on products available in the European Union; and
- strengthens the rules for the assessment of certain high-risk devices, such as implants, which may have to undergo an additional check by experts before they are placed on the market.

The Medical Device Regulation substantially augments those aspects of the Medical Device Directive governing clinical investigations of medical devices. In addition to detailed provisions concerning the authorization and conduct of clinical investigations, the Regulation imposes on non-EU sponsors a responsibility to appoint a legal representative established in the EU and an obligation on EU Member States to ensure that systems exist to compensate clinical investigation participants who are harmed in that jurisdiction due to their participation.

Further, the advertising and promotion of our products in the EEA is currently subject to the provisions of Directive 2006/114/EC concerning misleading and comparative advertising, Directive 2005/29/EC on unfair commercial practices, and the Medical Device Regulation, as well as other national legislation in the EEA countries governing the advertising and promotion of medical devices. These laws may limit or restrict the advertising and promotion of our products to the general public and may impose limitations on our promotional activities with healthcare professionals.

Regulatory Status

In November 2008, we received 510(k) clearance to market our first generation iFuse implant from the FDA. Since 2008, we have received additional FDA 510(k) clearances for new instruments, additional implant sizes and labeling changes. In the United States, our first-generation iFuse implants and our iFuse-3D implants are intended for sacroiliac fusion for the following conditions: sacroiliac joint dysfunction that is a direct result of sacroiliac joint disruptions and degenerative sacroiliitis, which includes conditions where symptoms began during pregnancy or in the peripartum period and have persisted postpartum for more than six months; to augment immobilization and stabilization of the sacroiliac joint in skeletally mature patients undergoing sacropelvic fixation as part of a lumbar or thoracolumbar fusion; and acute, non-acute, and non-traumatic fractures involving the sacroiliac joint.

In February 2021, we received 510(k) clearance to market our iFuse-TORQ from the FDA. In the United States, iFuse-TORQ is intended for fusion of the sacroiliac joint for sacroiliac joint dysfunction including sacroiliac joint disruption and degenerative sacroilitis; and for fracture fixation of small and large bones of the pelvis.

In June 2022, we received an additional 510(k) clearance from the FDA to extend the use of iFuse-TORQ to include fragility fractures. This clearance opens a new population that can benefit from SI joint fusion and fracture fixation using iFuse-TORQ.

In September 2022, we received 510(k) clearance from the FDA for use of iFuse-TORQ using the Bedrock technique. This clearance allows us to promote the use of a threaded implant (iFuse-TORQ) in a trajectory that is familiar to surgeons through a previous clearance for the same use for iFuse-3D.

In May 2022, we received 510(k) clearance from the FDA for iFuse Bedrock Granite. This implant combines benefits of a pelvic fixation screw with attachment to posterior rods of pedicle screw systems and simultaneous fusion of the SI joint related to the device's porous surface. This device previously received breakthrough device designation from the FDA in November 2021. The combination of breakthrough designation and FDA clearance allowed us to obtain a new technology add-on payment (NTAP) from CMS. NTAP provides an additional payment to hospitals for eligible cases that use iFuse Bedrock Granite.

In the future, we plan to pursue additional 510(k) clearances for new products and changes to the current indication for iFuse.

In November 2010, we obtained a CE Certificate of Conformity and affixed a CE mark to our iFuse Implant System to allow commercialization of our triangular iFuse implants in the EEA. In the EEA and Switzerland, iFuse is intended for sacroiliac joint fusion, including use in high and low energy fractures of the pelvic ring. Since 2010, we have added additional instruments, implant sizes and labeling updates and iFuse-3D, our second generation iFuse implant, to our product offerings in Europe. We plan to continue to work with our Notified Body to incorporate new products and labeling updates in our Technical Files for CE marking in Europe.

As of January 1, 2021, the United Kingdom has entered a transition period following Brexit. During that period, the UK Medical Devices Regulations (UK MDR) 2002 remains applicable in England, Scotland and Wales (Great Britain). During 2021, a UK Responsible Person was appointed and we registered the iFuse Implant System with the Medicines and Healthcare products regulatory agency. Valid CE marks will continue to be accepted in Great Britain and the requirement to obtain a UK Conformity Assessed (UKCA) mark has been delayed until July 2024.

As of May 26, 2021, the European Union no longer applies the Mutual Recognition Agreement between the EEA and Switzerland. Accordingly, manufacturers outside of Switzerland are required to appoint a Swiss authorized representative in compliance with the Swiss Medical Device Ordinance. As a consequence, we have appointed an authorized representative in Switzerland and continue to work to meet Swiss requirements for the import of medical devices.

We maintain approval for iFuse in regions beyond the United States and the EEA, including Australia, New Zealand, Hong Kong, and Israel. We are currently collecting information to determine our regulatory strategy in Japan.

Environmental Regulations

We outsource substantially all the manufacturing of our products, therefore we have not incurred significant expenses relating to our compliance with federal, state, or local environmental laws and do not expect to incur significant expenses in the foreseeable future. However, due to the nature of our operations and the frequently changing nature of environmental compliance standards and technology, we cannot predict with any certainty that future material capital or operating expenditures will not be required in order to comply with applicable environmental laws and regulations.

Healthcare Fraud and Abuse

Federal and state governmental agencies and equivalent foreign authorities subject the healthcare industry to intense regulatory scrutiny, including heightened civil and criminal enforcement efforts. These laws constrain the sales, marketing and other promotional activities of medical device manufacturers by limiting the kinds of financial arrangements we may have with hospitals, physicians and other potential purchasers and prescribers of our products. Federal healthcare fraud and abuse laws apply to our business when a customer submits a claim for an item or service that is reimbursable under Medicare, Medicaid, or other federally funded healthcare programs. The laws that may affect our ability to operate include:

- the federal Anti-Kickback Statute, which prohibits, among other things, knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, lease, order, arrangement for, or recommendation of, items or services for which payment may be made, in whole or in part, under federal healthcare programs, such as the Medicare and Medicaid programs. The term “remuneration” has been broadly interpreted to include anything of value, and the government can establish a violation of the Anti-Kickback Statute without proving that a person or entity had actual knowledge of, or a specific intent to violate, the law;

- the federal civil False Claims Act, which prohibits, among other things, individuals or entities from knowingly presenting, or causing to be presented, false or fraudulent claims for payment of government funds; 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. A claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the False Claims Act. Actions under the False Claims Act may be brought by the government or as a *qui tam* action by a private individual in the name of the government and to share in any monetary recovery. There are also criminal penalties for making or presenting a false or fictitious or fraudulent claim to the federal government;

- the federal Health Insurance Portability and Accountability Act of 1996, which 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;

- the federal Physician Payment Sunshine Act, implemented by the Centers for Medicare & Medicaid Services (“CMS”) as the Open Payments program, 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 to the CMS, information related to payments and other “transfers of value” made to physicians (currently defined to include doctors, dentists, optometrists, podiatrists and chiropractors), other healthcare professionals (including physician assistants and nurse practitioners), and teaching hospitals, and requires applicable manufacturers to report annually to CMS ownership and investment interests held by physicians and their immediate family members and payments or other “transfers of value” to such physician owners;

- analogous state and foreign law equivalents of each of the above federal laws, such as anti-kickback and false claims laws, which may apply to items or services reimbursed by any third-party payor, including commercial insurers and patients; state laws that require device companies to comply with the industry's voluntary compliance guidelines and the applicable compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state beneficiary inducement laws, and state laws that require device manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

If we or our employees are found to have violated any of the above laws we may be subject to significant administrative, civil and criminal penalties, including imprisonment, exclusion from participation in federal health care programs, such as Medicare and Medicaid, significant fines, monetary penalties and damages, the restructuring or curtailment of our operations, imposition of compliance obligations and monitoring, and damage to our reputation. For a more detailed description of the federal and state health care fraud and abuse laws, see the risk factor "We and our sales representatives must comply with U.S. federal and state fraud and abuse laws, including those relating to healthcare provider kickbacks and false claims for reimbursement, and other applicable federal and state healthcare laws, as well as equivalent foreign laws, and failure to comply could negatively affect our business" in the Risks Related to Our Legal and Regulatory Environment section of Item 1A of this Annual Report on Form 10-K.

The U.S. Foreign Corrupt Practices Act ("FCPA") and similar anti-bribery laws in other countries, such as the United Kingdom Bribery Act ("UKBA"), generally prohibit companies and their intermediaries from making improper payments to government officials and/or other persons for the purpose of obtaining or retaining business. Our policies mandate compliance with these anti-bribery laws.

Both the federal and state governments in the U.S. and foreign governments continue to propose and pass new legislation and regulations designed to contain or reduce the cost of healthcare. Such legislation and regulations may result in decreased reimbursement for medical devices, which may further exacerbate industry-wide pressure to reduce the prices charged for medical devices.

Data Privacy and Security Laws

We are also subject to various federal, state and foreign laws that protect the confidentiality of certain patient health information, including patient medical records, and restrict the use and disclosure of patient health information by healthcare providers, such as the Health Insurance Portability and Accountability Act, and its implementing regulations, as amended by Health Information Technology for Economic and Clinical Health Act enacted under the American Recovery and Reinvestment Act 2009 ("ARRA") (collectively, "HIPAA"), in the United States.

HIPAA imposes obligations on "covered entities," including certain healthcare providers, health plans, and healthcare clearinghouses, and their respective "business associates" that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity as well as their covered subcontractors, with respect to safeguarding the privacy, security and transmission of individually identifiable health information. HIPAA also requires the notification of patients, reporting to the U.S. Department of Health and Human Services ("HHS"), and other compliance actions, in the event of a breach of unsecured Protected Health Information ("PHI"). Required notification must be provided without unreasonable delay and in no event later than 60 calendar days after discovery of the breach, under HIPAA. In addition, if the PHI of 500 or more individuals is improperly used or disclosed, HHS would post the notification on its website, and we may be required to notify the media. Failure to comply with the HIPAA privacy and security standards can result in significant civil monetary penalties, and, in certain circumstances, criminal penalties, including imprisonment.

In addition, even when HIPAA does not apply other federal and state laws impose security obligations. For example, according to the Federal Trade Commission ("FTC"), failing to take appropriate steps to keep consumers' personal information secure constitutes unfair acts or practices in or affecting commerce in violation of Section 5(a) of the FTCA, 15 U.S.C § 45(a). The FTC expects a company's data security measures to be reasonable and appropriate in light of the sensitivity and volume of consumer information it holds, the size and complexity of its business, and the cost of available tools to improve security and reduce vulnerabilities. Medical data is considered sensitive data that merits stronger safeguards.

In the European Union ("EU"), we are subject to laws relating to our collection, control, processing and other use of personal data (i.e. data relating to an identifiable living individual). We process personal data in relation to our operations. We process data of our employees, consultants, certain individuals who may be affiliated with our customers, including physician users of our products and, in the context of clinical investigations, patients. The personal data may include sensitive personal data including health information. The data privacy regime in the EU includes the EU General Data Protection Regulation, or the GDPR, effective on May 25, 2018 and the E-Privacy Directive 2002/58/EC and the national laws implementing it. Each EU Member State may adopt additional legislation implementing these regulations into its own national data privacy regime and therefore the laws may differ by jurisdiction, sometimes significantly. We need to ensure compliance with the rules in each jurisdiction where we are established or are otherwise subject to local privacy laws.

The GDPR is directly applicable in each EU Member State. This should, in principle, result in a more uniform application of data privacy laws across the EU. The GDPR imposes onerous accountability obligations requiring data controllers and processors to maintain a record of their data processing and policies. It requires data controllers to be transparent and to disclose to data subjects (in a concise, intelligible and easily accessible form) how their personal information is to be used, imposes limitations on retention of information, increases requirements pertaining to pseudonymized (i.e., key-coded) data, introduces mandatory data breach notification requirements and sets higher standards for data controllers to demonstrate that they have obtained valid consent for certain data processing activities. Fines for non-compliance with the GDPR will be significant-the greater of € 20 million or 4% of global turnover. The GDPR provides that EU Member States may introduce further conditions, including limitations, to the processing of genetic, biometric, or health data, which could limit our ability to collect, use and share personal data, or could cause our compliance costs to increase, ultimately having an adverse impact on our business. Each EU Member State may also adopt additional related legislation and guidance in its own national data privacy regime and therefore the laws may differ by jurisdiction, sometimes significantly. We need to ensure compliance with the rules in each jurisdiction where we are established or are otherwise subject to local privacy laws.

We are subject to the supervision of local data protection authorities in those jurisdictions where we are established or otherwise subject to applicable law. We depend on a number of third parties in relation to our provision of our services, a number of which process personal data on our behalf. With each such provider we enter into contractual arrangements to ensure that they only process personal data according to our instructions and applicable laws, and that they have sufficient technical and organizational security measures in place to fulfil their related obligations. Where we transfer personal data outside the EEA, we do so in compliance with the relevant data export requirements. We take our data protection obligations seriously, as any improper disclosure, particularly with regard to our customers' sensitive personal data, could negatively impact our business and/or our reputation.

Manufacturing and Supply

We use third-party manufacturers to produce our implants and instruments. To mitigate supply risk, we use a rolling twelve month forecast and take into consideration production lead times to maintain adequate levels of inventory for both our iFuse-3D and iFuse-TORQ. Most of our instruments have secondary manufacturing suppliers and we continually work with additional manufacturers as our secondary suppliers. Substantially all of our products, including all of our implants, are manufactured in the United States.

Our primarily supplier for iFuse-3D and iFuse-TORQ is rms Company ("RMS"). We entered into a non-exclusive Manufacturing, Quality and Supply Agreement with RMS in January 2017, which was amended in July 2020, and amended and restated in June 2021. Pursuant to this agreement, RMS manufactures certain of our implants in accordance with our specifications, including both purchased and sterilized implants, as well as uncoated machined implants which are subsequently coated to become our finished first generation iFuse implants. While the agreement provides that we are required to purchase the amounts forecasted in a blanket purchase order, we are not required to purchase product in excess of such forecasted amounts. The prices we pay for products are fixed under the agreement provided that if order volumes deviate from forecasted amounts beyond certain thresholds, we or RMS may request to negotiate further price changes. The agreement automatically renews for successive one-year periods; provided, however, the agreement may be terminated early by either party, as specified in the agreement. RMS is currently our only supplier of iFuse-3D and iFuse-TORQ implants.

Our iFuse Bedrock Granite implant is manufactured and assembled by third-party suppliers, including RMS.

We believe that our manufacturing operations, and those of our suppliers, comply with regulations mandated by the FDA, as well as Medical Devices Directive regulations in the EEA. Manufacturing facilities that produce medical devices or component parts intended for distribution world-wide are subject to regulation and periodic planned and unannounced inspection by the FDA and other domestic and international regulatory agencies.

In the United States, products we sell are required to be manufactured in compliance with the FDA's Quality System Regulation, codified at 21 CFR Part 820, which covers the methods used in, and the facilities used for, the design, testing, control, manufacturing, labeling, quality assurance, packaging, storage, and shipping. In international markets, we are required to obtain and maintain various quality assurance and quality management certifications, including those issued by DEKRA Certification, B.V., our notified body. DEKRA has issued the following international certifications: Quality Management System ISO13485:2016 for our locations in Santa Clara, California, and Gallarate Italy; Full Quality Assurance Certification for the design and manufacture of iFuse; and a Design Examination certificate for iFuse.

We are required to demonstrate continuing compliance with applicable regulatory requirements to maintain these certifications and will continue to be periodically inspected by international regulatory authorities for certification purposes. Further, we and certain of our suppliers are required to comply with all applicable regulations and current good manufacturing practices. As set forth above, these FDA and international regulations cover, among other things, the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage, and shipping of our products. Compliance with applicable regulatory requirements is subject to continual review and is monitored rigorously through periodic inspections. If we or our manufacturers fail to adhere to current good manufacturing practice requirements, this could delay production of our products and lead to fines, difficulties in obtaining regulatory approvals, recalls, enforcement actions, including injunctive relief or consent decrees, or other consequences, which could, in turn, have a material adverse effect on our financial condition or results of operations.

Product Liability and Insurance

The manufacture and sale of our products subjects us to the risk of financial exposure to product liability claims. Our products are used in situations in which there is a risk of serious injury or death. We carry insurance policies which we believe to be customary for similar companies in our industry. We cannot assure you that these policies will be sufficient to cover all or substantially all losses that we experience.

We endeavor to maintain executive and organization liability insurance in a form and with aggregate coverage limits that we believe are adequate for our business purposes, but our coverage limits may prove not to be adequate in some circumstances.

Human Capital Resources

Our ability to recruit, develop and retain highly skilled talent is a significant determinant of our success. To facilitate talent attraction, retention, and development, we strive to make SI-BONE an inclusive, diverse, and safe workplace with opportunities for our employees to grow and develop in their careers, supported by strong compensation, benefits, and health and wellness programs, as well as by programs that build connections between our employees and the communities in which they live and work. In response to

intense competition in the labor markets in which we compete, we actively track and manage voluntary and involuntary employee turnover and attrition.

As of December 31, 2022, we had 357 employees, including sales and marketing, product development, general administrative and accounting, both domestically and internationally. As of December 31, 2022, we had a direct field sales organization of 161 in the United States and 18 in Europe. During 2022, our voluntary attrition rate was approximately 11%.

Diversity and Inclusion

To realize our mission and vision, we are committed to actively fostering workforce diversity and an environment of cultural inclusion throughout the company. We maintain a Diversity and Inclusion Plan which is overseen by our Nominating and Corporate Governance Committee. Our program goal is to increase gender and ethnic diversity in our workforce and leadership over three years, while continuing to provide equal employment opportunities to all candidates and employees without regard to any protected status. Accordingly, we track gender diversity among our global and U.S. workforce, the percentage of employees above director level who are female, the representation of women and underrepresented communities on our Board of Directors and the diversity of our U.S. workforce.

We aim to maintain a mix of backgrounds, skills, and experiences in our board composition to understand and reflect the needs of our diverse stakeholders. Currently, four of our nine board members are women and two of our board members self-identify as Asian American.

Workplace Health and Safety

The health and safety of our employees is a priority in which we have always invested and intend to continue to do. In light of the COVID-19 pandemic, the prioritization of employee health, safety, and wellness took on particular significance in 2022. We implemented significant changes that we determined were in the best interest of our employees, as well as the communities in which we operate, in compliance with government regulations. We have implemented health and safety measures that include maximizing personal workspaces, providing personal protective equipment and holding on-site vaccinations events.

Compensation and Benefits

We provide competitive compensation and benefits programs to help meet the needs of our employees. In addition to base compensation, these programs, which vary by country, include annual bonuses, restricted stock unit awards, an Employee Stock Purchase Plan, 401(k), health and wellness benefits, health savings and flexible spending accounts, paid time off, family leave, paid parental leave, flexible work schedules, and others.

Our employees and their families have access to a variety of innovative, flexible, and convenient health and wellness programs. These benefits are intended to provide protection and security, so employees can have peace of mind concerning events that may require time away from work or that may impact their financial well-being. Additionally, we offer programs to help support employee physical and mental health and offer choices where possible, so they are customized to meet their needs and the needs of their families.

Ensuring fair and equitable pay is integral to our commitment to our employees. Our executive team and Board of Directors strongly support this commitment. On an ongoing basis we monitor pay equity to identify any pay disparities and then to determine appropriate adjustments.

Learning and Talent Development

We value our employees and the passion, commitment, and professional expertise they provide. To enhance employee retention and job satisfaction, we offer ongoing learning and leadership training opportunities that support growth and development.

We also regularly evaluate our workforce and plan to address key skill and leadership gaps through a talent management process. In 2022 we implemented a new career development program which includes a formalized framework that reflects how an employee can advance their career within the company. This provides many benefits including clarity, structure, and direction for employees and managers for career advancement and their future at SI-BONE which increases employee motivation, engagement, and retention.

We have a robust annual performance review process for reviewing employees' performance and compensation. To support our managers, we train them on conducting effective performance reviews and making compensation recommendations, which take into consideration external and internal benchmarks and performance.

Employee Engagement

We believe that building connections between our employees, their families, and our communities creates a more meaningful and fulfilling workplace. Through our engagement programs, our employees can pursue their interests and connect to volunteering and giving opportunities. On an ongoing basis we sponsor philanthropic and volunteer events in which our employees can participate. During 2022, we organized employee cash donations to food banks to support the neediest individuals in San Francisco Bay Area communities.

We encourage you to review our ESG Shareholder Letter in the Governance Documents of the Corporate Governance section of our Investor website for more detailed information regarding our human capital programs and initiatives. Nothing on our website, including our ESG Shareholder Letter, shall be deemed part of or incorporated by reference into this Annual Report.

Company History

SI-BONE was founded in 2008 by the main inventor of iFuse, orthopedist Mark A. Reiley, M.D., our then President and Chief Executive Officer, Jeffrey W. Dunn, and orthopedic surgeon Leonard Rudolf, M.D. Dr. Reiley previously invented balloon kyphoplasty and founded Kyphon Inc., which was sold to Medtronic plc in 2007. Dr. Reiley also invented the INBONE total ankle replacement system, which was sold to Wright Medical Technology, Inc. in 2008.

Corporate Information

We were incorporated in March 2008 in Delaware. Our principal executive offices are located at 471 El Camino Real, Suite 101, Santa Clara, California 95050 and our telephone number is (408) 207-0700. Our website address is www.si-bone.com. We completed our initial public offering in October 2018, and our common stock is listed on the Nasdaq Global Market under the symbol “SIBN.”

Our Annual Report on Form 10-K, Quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act are available free of charge on our website. The information contained on or that can be accessed through our website is not incorporated by reference into this report, and you should not consider information on our website to be part of this report.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. Investors should carefully consider the risks described below, as well as the other information in this Annual Report on Form 10-K, including our consolidated financial statements and the related notes and the section "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below could materially and adversely affect our business, financial condition, results of operations, and growth prospects. In such an event, the market price of our common stock could decline, and our stockholders may lose all or part of their investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations.

Risks Related to Our Business and Our Industry

We have incurred significant operating losses since inception, we expect to continue to incur operating losses in the future, and we may not be able to achieve or sustain future profitability.

We have incurred net losses since our inception in 2008. For the years ended December 31, 2022 and 2021, we had net losses of $61.3 million and $56.6 million, respectively. As of December 31, 2022, we had an accumulated deficit of $357.1 million. We have financed our operations primarily through the net proceeds of our public offerings of our common stock, private placements of equity securities, certain debt-related financing arrangements, and from sales of our products. We have devoted substantially all of our resources to research and development of our products, sales and marketing activities, investments in training and educating surgeons and other healthcare providers, and clinical and regulatory matters for our products. There can be no assurances that we will be able to generate sufficient revenue from our existing products or from any of our product candidates in development, and to transition to profitability and generate consistent positive cash flows, and even if we are able to do so, our ability to do so has been delayed by the COVID-19 pandemic. We expect that our operating expenses will continue to increase as we continue to build our commercial infrastructure, develop, enhance, and commercialize our existing and new products. As a result, we expect to continue to incur operating losses for the foreseeable future and may never achieve profitability. Furthermore, even if we do achieve profitability, we may not be able to sustain or increase profitability on an ongoing basis. If we do not achieve profitability, it will be more difficult for us to finance our business and accomplish our strategic objectives.

Our expected future capital requirements depend on many factors including expanding our surgeon base, the expansion of our sales force, investment in implants and instruments, and the timing and extent of spending on the development of our technology to increase our product offerings, and potential investment in additional product and service offerings through the acquisition of other businesses. We may need additional funding for our operations, but additional funds may not be available to us on acceptable terms on a timely basis, if at all. We may seek funds through borrowings or through additional rounds of financing, including private or public equity or debt offerings. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Any future debt financing into which we enter may impose upon us additional covenants that restrict our operations, including limitations on our ability to incur liens or additional debt, pay dividends, repurchase our common stock, make certain investments, and engage in certain merger, consolidation or asset sale transactions. Any future debt financing or additional equity that we raise may contain terms that are not favorable to us or our stockholders. Furthermore, we cannot be certain that additional funding will be available on acceptable terms, if at all. The capital markets have deteriorated substantially since the beginning of 2022, especially with respect to securities issued by companies in the medical device and technology sectors. Equity and debt capital have become substantially more expensive and difficult to raise on attractive terms. If we are unable to raise additional capital or generate sufficient cash from operations to adequately fund our operations, we will need to curtail planned activities to reduce costs, which will likely harm our ability to execute on our business plan and continue operations.

Prolonged inflation and supply chain disruptions could result in delayed product launches, lost revenue, higher costs and decreased profit margins.

A majority of our products are manufactured and sold inside of the United States, which increases our exposure to domestic inflation and fuel price increases. Recent inflationary pressures have resulted in increased fuel, raw materials and other costs which, if they continue for a prolonged period, may adversely affect our results of operations. We have experienced shortages in certain raw materials and component inputs of our products, primarily surgical instruments, as suppliers have been unable to meet delivery schedules due to excess demand and labor shortages, and lead times have lengthened throughout our supply chain. Our efforts to mitigate supply chain weaknesses may not be successful or may have unfavorable effects. For example, efforts to purchase raw materials in advance for product manufacturing may result in increased storage costs or excess supply. If our costs rise due to continuing significant inflationary pressures or supply chain disruptions, we may not be able to fully offset such higher costs through price increases. In addition, delays in obtaining materials, components or instruments from our suppliers could delay product launches or result in lost opportunities to sell our products due to their availability. Increased costs and decreased product availability due to supply chain issues could adversely impact our revenue and/or gross margin, and could thereby harm our business, financial condition, and results of operation.

Disruptions in the supply of the materials and components used in manufacturing our products or the sterilization of our products by third-party suppliers could adversely affect our business, financial condition and results of operations.

Our suppliers purchase many of the materials and components used in the manufacture of our products from third-party suppliers. Certain of these materials and components can only be obtained from a single source or a limited number of sources due to quality considerations, expertise, costs or constraints resulting from regulatory requirements. In certain cases, our suppliers may not be able to establish additional or replacement suppliers for such materials or components or outsourced activities in a timely or cost effective manner. A reduction or interruption in the supply of materials or components used in manufacturing our products, such as due to one or more suppliers experiencing reductions in operations and/or worker absences due to the COVID-19 pandemic or other health epidemics, an inability to timely develop and validate alternative sources if required, or a significant increase in the price of such materials or components, such as that caused by inflation and rising interest rates, could adversely affect our business, financial condition and results of operations. For example, certain of our products require titanium, which is sourced from third-party suppliers. While the titanium required for such products is not directly sourced from Russia, the current geopolitical events involving Russia and Ukraine are negatively impacting the wider titanium supply chain and such geopolitical events and factors relating thereto or resulting therefrom, including related sanctions, may negatively impact the ability of our suppliers' third-party supply sources to timely supply titanium to our suppliers and may increase or result in additional costs to us.

In addition, many of our products require sterilization prior to sale, and our suppliers use contract sterilizers to perform this service. To the extent that these contract sterilizers are unable to sterilize our products, whether due to capacity, availability of materials for sterilization, regulatory or other constraints, including reductions in operations and/or worker absences due to the COVID-19 pandemic or other health epidemics, we may be unable to transition to other contract sterilizers, sterilizer locations or sterilization methods in a timely or cost effective manner or at all, which could have a material impact on our results of operations and financial condition.

If hospitals, surgeons, and other healthcare providers are unable to obtain and maintain adequate or any coverage and reimbursement from third-party payors for procedures performed using our products, further adoption of our products may be delayed, and it is unlikely that they will gain further acceptance, and the prices paid for our implants may decline.

Maintaining and growing sales of our products depends on the availability of adequate coverage and reimbursement from third-party payors, including government programs such as Medicare and Medicaid, private insurance plans, and managed care programs. Hospitals, surgeons, and other healthcare providers that purchase or use medical devices generally rely on third-party payors to pay for all or part of the costs and fees associated with the procedures performed with these devices. When a procedure using our implants is performed, both the surgeon and the healthcare facility, either a hospital or ambulatory surgical center, submit claims for reimbursement to the healthcare payor. We may be unable to sell our products on a profitable basis if third-party payors deny coverage, or if reimbursement levels are insufficient to support use of our products by healthcare facilities or to compensate surgeons for their time spent diagnosing patients and performing procedures using our products.

While all Medicare Administrative Contractors are regularly reimbursing for minimally invasive sacroiliac joint fusion utilizing laterally placed transfixing devices, a small number of private payors still have policies that treat the procedure as experimental or investigational and do not regularly reimburse for the procedure. Future action by the Centers for Medicare and Medicaid Services ("CMS") or third-party payors may further reduce the availability of payments to physicians, outpatient surgery centers, and/or hospitals for procedures using our products. Volatility in the payment rates that physicians and hospitals receive from CMS may have a material impact on their willingness to perform procedures including our products, as well as place additional pressure on pricing of our implants.

The healthcare industry in the United States has experienced a trend toward cost containment as government and private insurers seek to control healthcare costs. Payors are imposing lower payment rates and negotiating reduced contract rates with service providers and being increasingly selective about the technologies and procedures they choose to cover. Payors may adopt policies in the future restricting access to medical technologies like ours and/or the procedures performed using such technologies. Therefore, we cannot be certain that the procedures performed with each of our products will be reimbursed. There can be no guarantee that, should we introduce additional products in the future, payors will cover those products or the procedures in which they are used.

Effective January 1, 2023, the Medicare physician fee reimbursement for minimally invasive fusion with our laterally placed transfixing iFuse implants, described as Current Procedural Terminology ("CPT") Code 27279, is $827. Commercial payors generally set their physician fee reimbursement with reference to Medicare reimbursement rates. We believe that some surgeons may continue to view the Medicare and commercial reimbursement amounts as insufficient for the procedure, given the work effort involved with the procedure, including the time to diagnose the patient and obtain prior authorization from the patient's health insurer if necessary. We believe that some private payors apply their own coverage policies and criteria inconsistently, and surgeons may not be able to consistently have minimally invasive sacroiliac fusion procedures utilizing laterally placed transfixing devices approved and covered. The perception by physicians that the reimbursement for minimally invasive sacroiliac joint fusion is insufficient to compensate them for the work required, including diagnosis, documentation, obtaining payor approval for the procedure, and burden on their office staff, may negatively affect the number of procedures performed and may therefore adversely affect our revenues.

The American Medical Association (AMA) develops and maintains CPT codes that are used by third-party payors to determine the amount of reimbursement that a healthcare provider and facility will receive for a particular service. CPT codes are divided into three categories: Category I codes represent existing services or procedures that are widely used. Category II codes are supplemental tracking codes, and Category III codes are temporary codes that represent new technologies, services, and procedures. A Category III code does not have a payment rate established and reimbursement is at the payor's discretion. CPT Code 27279, which describes minimally-invasive surgical fusion of the sacroiliac joint performed with our laterally placed transfixing iFuse implants, is a Category I CPT code. As the number of products and surgical procedures to address sacroiliac joint dysfunction has expanded and diversified, certain medical societies requested that the AMA create additional codes representing some of these newer, and different procedures utilizing non-transfixing technologies. In May 2022, the AMA CPT Editorial Panel adopted a proposal for a new Category III code to become effective January 1, 2023, describing a different sacroiliac joint procedure to place interpositional, intra-articular and non-transfixing implants typically using a dorsal, or posterior, approach. In September 2022, the AMA CPT Editorial Panel subsequently approved a proposal to create another Category III tracking code to describe the implantation of both lateral transfixing implants, as well as intra-articular (dorsal, or non-transfixing) implants during the same operative session ("hybrid" sacroiliac procedures) effective July 1, 2023; and also voted to convert the Category III Code to describe procedures to implant the newer, non-transfixing (dorsally placed) implants to a Category I Code effective January 1, 2024. If the levels of reimbursement for, and consistency of coverage associated with, procedures performed with our medical devices under the existing Category I CPT Code decrease as a result of or in connection with these coding changes, it could make the procedures in which our implants are used less attractive to healthcare professionals, decreasing the number of devices we are able to sell and adversely affecting our business, results of operations and financial condition.

Recent political, economic, and regulatory influences are subjecting the healthcare industry to fundamental changes that can impact coverage and reimbursement from third-party payors. We expect that the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2011, as currently enacted or as it may be amended in the future, and other healthcare reform measures that may be adopted in the future, could have a material adverse effect on our industry generally and on our ability to maintain or increase sales of our existing products. CMS budget neutrality requirements may impose cuts to the Medicare physician fee schedule, which may be mitigated by acts of Congress or other changes to regulations. Other federal laws, known as budget sequestration, further reduce Medicare's payments to providers. Under current legislation, the reduction in Medicare payments will vary from 2% under the Budget Control Act of 2011 (currently set to expire in 2031) to 4% if budget sequestration is triggered under the Statutory Pay-As-You-Go Act of 2010. These reductions may reduce reimbursement for procedures performed using our products, which could potentially negatively impact our revenue, and may reduce providers' revenues or profits, which could affect their ability to purchase new technologies. Both the federal and state governments in the U.S. and foreign governments continue to propose and pass new legislation and regulations designed to contain or reduce the cost of healthcare. Such legislation and regulations may result in decreased reimbursement for medical devices, which may further exacerbate industry-wide pressure to reduce the prices charged for medical devices. This could harm our ability to market our products and generate sales, which could adversely affect our business, results of operations and financial condition.

Market acceptance of our products in foreign markets may depend, in part, upon the availability of coverage and reimbursement within prevailing healthcare payment systems. Reimbursement and healthcare payment systems in international markets vary significantly by country and include both government-sponsored healthcare and private insurance. We may not obtain additional international coverage and reimbursement approvals in a timely manner, if at all. Our failure to receive such approvals would negatively impact market acceptance of our products in the international markets in which those approvals are sought.

If healthcare payors reverse decisions to cover minimally invasive sacroiliac joint fusion exclusively when performed with iFuse and choose to reimburse for procedures performed with competitive products, our market share could decline, adversely affecting our revenues.

As of December 31, 2022, a significant number of the largest U.S. payors that we track and target have issued positive coverage policies covering the patented design of our triangular iFuse implants and excluding coverage of other products that are intended to fuse the sacroiliac joint because of the clinical evidence supporting the use of triangular titanium implants and the lack of clinical evidence supporting the use of other products. We believe that payors have adopted these exclusive coverage decisions due to the strength of our clinical evidence and in part due to recommendations of specialty benefit managers and healthcare technology assessment organizations. Clinical trials of the type and size necessary to offer evidence of the safety and efficacy of competing products could be performed and could show that other products for sacroiliac joint fusion are as effective as, or more effective than, our triangular iFuse implants. Payors could also abandon their decisions to cover triangular implants exclusively for other reasons.

Healthcare payors which have adopted sacroiliac joint fusion coverage policies exclusive to titanium triangular implants could reverse the exclusive nature of their policies and allow surgeons to use other types of products when performing sacroiliac fusion procedures. For example, AIM, a clinical evidence evaluation organization which influences Anthem, among other payors, promulgated such a policy, effective September 11, 2022, that is no longer exclusive to titanium triangles. If healthcare payors covering a significant number of covered lives reverse their policies of covering minimally invasive sacroiliac joint fusion exclusively when performed with triangular titanium implants, sales of our triangular iFuse implants could decline or fail to grow, which could adversely affect our business, results of operations and financial condition.

Epidemic diseases, or the perception of their effects, may continue to adversely affect our business, financial condition, results of operations, or cash flows.

As the COVID-19 global pandemic enters its fourth year, the impact of COVID-19 on our business remains highly dependent on future developments, which are uncertain and unpredictable. An outbreak of an infectious disease, or an escalation of the COVID-19 pandemic could continue to divert medical resources toward the treatment of that disease, and negatively affect hospital admission rates and the decision by patients to undergo elective surgery, which could decrease demand for procedures using our implants and cause other disruptions to our business. Business disruptions have included, and could continue to include, disruptions or restrictions on our ability to travel or to distribute our products, government orders suspending the performance of elective surgical procedures, inability of our customers to meet their financial commitments due to strain on the healthcare system, as well as temporary closures of our facilities or the facilities of our suppliers and their contract manufacturers, and a reduction in the business hours of hospitals and ambulatory surgery centers. Any disruption of our suppliers and their contract manufacturers or our customers would likely impact our sales and operating results. In addition, a significant outbreak of an infectious disease in the human population could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn that could affect demand for our products. Any of these events could negatively impact the number of procedures using our implants that are performed and have a material adverse effect on our business, financial condition, results of operations, or cash flows.

In addition, the COVID-19 pandemic has adversely affected, and may continue to adversely affect, the economies and financial markets of many countries, which may result in a period of regional, national, and global economic slowdown or regional, national, or global recessions that could curtail or delay spending by hospitals and affect demand for our products as well as increase risk of customer defaults or delays in payments. These market disruptions could impair our ability to raise capital, should our business experience a prolonged period of reduced revenue requiring additional capital to sustain the business. COVID-19 and the current financial, economic, and capital markets environment, and future developments in these and other areas present material uncertainty and risk with respect to our performance, financial condition, results of operations, and cash flows. Due to the uncertain scope and duration of the pandemic and uncertain timing of global recovery and economic normalization, we are unable to estimate the long-term impacts on our operations and financial results.

The existence and further duration of the COVID-19 pandemic may also further exacerbate certain of the risks described herein.

We may not be able to convince physicians that our products are attractive alternatives to our competitors' products and that our procedures are attractive alternatives to existing surgical and non-surgical treatments for their respective indications.

Surgeons, in consultation with their patients, play the primary role in determining the course of treatment and, ultimately, any product that will be used in treatment. In order for us to sell our products successfully, we must demonstrate to surgeons through education and training that treatment with iFuse is beneficial, safe, and cost-effective for patients as compared to our competitors' products. If we are not successful in demonstrating the merits of our products to surgeons, their use of our products may decline, adversely affecting our revenues and profitability.

Historically, most spine surgeons did not include an evaluation of the sacroiliac joint in their diagnostic work-up because they did not have an adequate surgical procedure to perform for patients diagnosed with sacroiliac joint dysfunction. We believe that educating surgeons and other healthcare professionals about the clinical merits and patient benefits of iFuse is an important element of building our business. If we fail to effectively educate surgeons and other medical professionals, they may not include a sacroiliac joint evaluation as part of their diagnosis and, as a result, those patients may continue to receive unnecessary surgical procedures or only non-surgical treatment.

Surgeons may also hesitate to change their medical treatment practices for other reasons, including the following:

- lack of experience with minimally invasive procedures;
- perceived liability risks generally associated with the use of new products and procedures;
- costs associated with the purchase of new products; and
- time commitment that may be required for training.

Furthermore, we believe surgeons will not widely use our products unless they determine, based on experience, clinical data, and published peer-reviewed publications, that surgical intervention provides benefits or is an attractive alternative to non-surgical treatments of sacroiliac joint dysfunction. In addition, we believe support of our products relies heavily on long-term data showing their benefits. If we are unable to provide that data, surgeons may not use our products. In such circumstances, we may not achieve expected sales and may be unable to achieve profitability.

Many patients with sacroiliac joint dysfunction are cared for by pain physicians and other interventionalists, who are generally trained as anesthesiologists or physical medicine and rehabilitation specialists. These physicians often offer a variety of non-surgical and surgical interventions to sacroiliac joint dysfunction patients, including, but not limited to, steroid injections, radiofrequency ablation of the nerves serving the sacroiliac joint and implantation of neurostimulation devices, allografts, and other products intended to treat the sacroiliac joint or the pain it can cause. Our professional education program seeks to teach these physicians, and other health care providers, about the benefits of iFuse, in order to prompt these providers to refer their patients with sacroiliac joint dysfunction to surgeons who have been trained to perform the iFuse procedure. These providers may, however, prefer to continue to treat these patients with the interventions they offer because they feel that these interventions are superior or because they have a financial interest in offering additional treatments to these patients. If we are unable to demonstrate to potential referring health care providers the comparative benefits of iFuse, and we are therefore unable to prompt sufficient numbers of these providers to refer their patients with sacroiliac joint dysfunction for treatment by surgeons trained to perform the iFuse procedure, sales of our iFuse implants could decline or fail to grow, which could adversely affect our business, results of operations and financial condition.

Surgeons and payors may not find our clinical evidence to be compelling, which could limit our sales and revenue, and on-going and future research may prove our products to be less safe and effective than currently thought.

The products we currently market in the United States have either received premarket clearance under Section 510(k) of the United States Federal Food, Drug, and Cosmetic Act ("FDCA"), or are exempt from premarket review. Those marketed in the European Union ("EU") have been the subject of a CE Certificate of Conformity. The 510(k) clearance process of the U.S. Food and Drug Administration ("FDA") requires us to document that our product is "substantially equivalent" to another 510(k)-cleared product. The 510(k) process is shorter and typically requires the submission of less supporting documentation than other FDA approval processes, such as a premarket approval ("PMA"), and does not usually require pre-clinical or clinical studies. As a result, while there are a number of published studies relating to iFuse and minimally invasive sacroiliac joint surgery that support the safety and effectiveness of our products and the benefits they offer, our clinical studies may lack the size and scope of randomized controlled clinical trials required to support approval of a PMA. For these reasons, surgeons may be slow to adopt our products, third-party payors may be slow to provide coverage, and we may be subject to greater regulatory and product liability risks. Further, future patient studies or clinical experience may indicate that treatment with our products does not improve patient outcomes. Such results would slow the adoption of our products by surgeons, significantly reduce our ability to achieve expected sales, and could prevent us from achieving profitability.

Pricing pressure from our competitors, changes in third-party coverage and reimbursement, healthcare provider consolidation, payor consolidation and the presence of "physician-owned distributorships" may impact our ability to sell our product at prices necessary to support our current business strategies.

If competitive forces drive down the prices we are able to charge for our product, our profit margins will shrink, which will adversely affect our ability to invest in and maintain and grow our market share. The sacroiliac joint fusion market has attracted numerous new companies and technologies. As a result of this increased competition, we believe there will be continuing increased pricing pressure, resulting in lower gross margins, with respect to our products.

Even to the extent our product and procedures using our product are currently covered and reimbursed by third-party private and public payors, adverse changes in coverage and reimbursement policies that affect our products, discounts, and number of implants used may also drive our prices and revenue down and harm our ability to market and sell our products.

Consolidation in the healthcare industry, including both third-party payors and healthcare providers, could lead to demands for price concessions or to the exclusion of some suppliers from certain of our markets, which could have an adverse effect on our business, results of operations, or financial condition. Because healthcare costs have risen significantly over the past several years, numerous initiatives and reforms initiated by legislators, regulators, and third-party payors to curb these costs have resulted in a consolidation trend in the healthcare industry to aggregate purchasing power. As the healthcare industry consolidates, competition to provide products and services to industry participants has become and will continue to become more intense. This in turn has resulted and will likely continue to result in greater pricing pressures and the exclusion of certain suppliers from important market segments as group purchasing organizations, independent delivery networks, and large single accounts continue to use their market power to consolidate purchasing decisions for hospitals. We expect that market demand, government regulation, third-party coverage, and reimbursement policies and societal pressures will continue to change the worldwide healthcare industry, resulting in further business consolidations and alliances among our customers, which may reduce competition, exert further downward pressure on the prices of our products, and adversely impact our business, results of operations, or financial condition. As we continue to expand into international markets, we will face similar risks relating to adverse changes in coverage and reimbursement procedures and policies in those markets.

Practice trends or other factors, including the COVID-19 pandemic, have caused, and may continue to cause, procedures to shift from the hospital environment to ambulatory surgical centers, or ASCs, where pressure on the prices of our products is generally more acute.

We anticipate that more outpatient eligible procedures will be performed in ASCs as a cost control measure within the healthcare system. This shift accelerated during the COVID-19 pandemic, and we expect it to continue because ASCs are generally a more economically favorable site of service, and surgeons performing the procedures sometimes have ownership interests in the ASC. Because ASC facility fee reimbursement is typically less than facility fee reimbursement for hospitals and due to surgeons' economic interest in ASCs, we typically experience more pressure on the pricing of our products by ASCs than by hospitals, and the average price for which we sell our products to ASCs is less than the average prices we charge to hospitals. In addition, some surgeons may choose to use fewer implants due to their interest in the profitability of the ASC. An accelerated shift of procedures using our products to ASCs could adversely impact the average selling prices of our products and our revenues could suffer as a result.

We operate in a very competitive business environment and if we are unable to compete successfully against our existing or potential competitors, our sales and operating results may be adversely affected.

Our currently marketed products are, and any future products we commercialize will likely be, subject to intense competition. Our field is subject to rapid change and is highly sensitive to the introduction of new products or other market activities of industry participants. Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner, receive adequate coverage and reimbursement from third-party payors, and are viewed as safer, less invasive, and more effective than alternatives available for similar purposes as demonstrated in peer-reviewed clinical publications. Because of the size of the potential market, other companies have dedicated, and likely will continue to dedicate, significant resources to developing competing products.

The number of competitors that we are aware of marketing sacroiliac joint fusion products in the United States has grown since 2008. Some of our current and potential competitors are major medical device companies that have substantially greater financial, technical, and marketing resources than we do, and they may succeed in developing products that would render our products obsolete or noncompetitive. In addition, many of these competitors have significantly longer operating history and more established reputations than we do. Some of these companies sell a broad suite of products that can be used together in the operating room in order to facilitate surgery, such as surgical imaging, navigation and robotic systems, or a large number of implants intended to treat different conditions affecting the spine and pelvis. The ability of these competitors to sell these products together or as part of larger purchasing arrangements may put us at a disadvantage. In addition, if these competitors use technology, contracts, or intellectual property measures to limit or eliminate the compatibility of their surgical imaging, navigation and robotic systems with our products, sales of our products could decline or fail to grow, which could adversely affect our business and results of operations.

In the United States, we believe that our primary competitors marketing implantable devices currently are Globus Medical, Inc. and Medtronic plc. Our primary competitors in Europe are Globus Medical, Inc. and SIGNUS Medizintechnik GmbH. At any time, these or other industry participants may develop alternative treatments, products or procedures for the treatment of the sacroiliac joint that compete directly or indirectly with our products. They may also develop and patent processes or products earlier than we can, or obtain domestic and international regulatory clearances or approvals and CE Certificates of Conformity for competing products in the European Economic Area ("EEA"), more rapidly than we can, which could impair our ability to develop and commercialize similar processes or products. If alternative treatments are, or are perceived to be, superior to our products, sales of our products and our results of operations could be negatively affected.

New participants have increasingly entered the medical device industry. Many of these new competitors specialize in a specific product or focus on a particular market segment, making it more difficult for us to increase our overall market position. The frequent introduction by competitors of products that are or claim to be superior to our current or planned future products may make it difficult to differentiate the benefits of our products over competing products. In addition, the entry of multiple new products and competitors may lead some of our competitors to employ pricing strategies that could adversely affect the pricing of our products and pricing in the market generally.

In addition, a number of companies selling allograft implants for use by a variety of physicians have collectively become a much larger presence in our market. If customers view allograft implants and our products as interchangeable, we risk increased pricing pressure on our products. It is unclear how the creation of the Category III code for these procedures effective January 1, 2023, and the conversion of the Category III Code to a Category I Code effective January 1, 2024, will impact the market for these products and procedures.

As a result, without the timely introduction of new products and enhancements, our products may become obsolete over time. If we are unable to develop innovative new products, maintain competitive pricing, and offer products that surgeons and other physicians perceive to be as reliable as those of our competitors, our market share or product margins could decrease, thereby harming our business.

We are highly dependent on revenue from the sale of a single family of products focused on procedures, the goal of which is to stabilize and fuse the sacroiliac joint. Reliance on a single family of products and single family of procedures could negatively affect our results of operations and financial condition

Substantially all of our revenue comes from the sale of iFuse, iFuse-3D, iFuse-TORQ, and iFuse Bedrock Granite implants, and related tools and instruments. Therefore, we are dependent on widespread market adoption of iFuse and we will continue to be dependent on the success of this single product family for some time. There can be no assurance that iFuse will maintain a substantial degree of market acceptance among surgeons, patients or healthcare providers. Our failure to successfully grow the market for iFuse and increase our share within that market or any other event impeding our ability to sell iFuse, could adversely affect our results of operations, financial condition and continuing operations.

If clinical experience with our iFuse Bedrock technique or iFuse Bedrock Granite does not result in positive outcomes for patients, or if clinical trials involving the use of iFuse Bedrock and/or iFuse Bedrock Granite fail to show meaningful patient benefit, sales of our iFuse, iFuse-3D, iFuse-TORQ and/or iFuse Bedrock Granite implants could be adversely impacted.

In November 2018, we introduced our iFuse Bedrock technique, in which spine surgeons place iFuse triangular implants across the sacroiliac joint using a different surgical approach to treat sacroiliac joint dysfunction at the same time they are fusing multiple levels of the spine above and affixing those spinal fusion devices to the pelvis. In April 2019, the FDA cleared promotion of iFuse Bedrock for a broader and more general purpose, to provide additional stability and immobilization of the sacroiliac joint in connection with a thoracolumbar fusion procedure. In May 2022, we introduced iFuse Bedrock Granite, an implant which fuses the sacroiliac joint and attaches to the rods placed in a multi-segment spinal fusion construct, and which is used in substantially similar procedures as the iFuse Bedrock technique. To date, clinical experience with the iFuse Bedrock technique and with iFuse Bedrock Granite is limited and we have yet to complete a clinical trial to evaluate the iFuse Bedrock technique or the iFuse Bedrock Granite implant. Surgeons do not know if the addition of sacroiliac fusion devices to the implants used to fuse multiple levels of the lumbar spine will result in patient benefit. If surgeons' clinical experience with our implants in these procedures is not positive, or if our clinical trials do not show meaningful benefits to the patients undergoing this procedure, sale of our iFuse implants for this indication could be adversely impacted, which could negatively affect our operations and financial condition.

If we are unable to maintain our network of direct sales representatives and third-party distributors, we may not be able to generate anticipated sales.

As of December 31, 2022, our U.S. sales force consisted of 88 territory sales managers and 73 clinical support specialists directly employed by us and 105 third-party distributors. As of December 31, 2022, our international sales force consisted of 18 sales representatives directly employed by us and 30 exclusive third-party distributors, which together have had sales in 38 countries through December 31, 2022. Our operating results are directly dependent upon the sales and marketing efforts of both our direct sales force and of our third-party distributors.

As we launch new products 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 direct sales representatives and third-party distributors with significant technical knowledge in various areas, such as spine and pelvic health and treatment. New hires require training and take time to achieve full productivity. If we fail to train new hires adequately, or if we experience high turnover in our sales force in the future, we cannot be certain that new hires will become as productive as may be necessary to maintain or increase our sales. If a direct sales representative or third-party distributor departs and is retained by one of our competitors, we may be unable to prevent them from helping competitors solicit business from our existing customers, which could further adversely affect our sales. The launch of new products or entrance into new markets could distract our sales representatives from existing customers and markets and redirect resources from existing to novel markets. Furthermore, any such change affects our ability to hire, contract with and retain members of our direct sales force and third-party distributors. Because of the intense competition for their services, we may be unable to recruit or retain additional qualified third-party distributors or to hire additional direct sales representatives to work with us. Furthermore, we may not be able to enter into agreements with them on favorable or commercially reasonable terms, if at all. Failure to hire or retain qualified direct sales representatives or third-party distributors would prevent us from expanding our business and generating sales. If our direct sales representatives or third-party distributors fail to adequately promote, market and sell our products or decide to leave or cease to do business with us, our sales could significantly decrease.

If we are unable to expand our sales and marketing capabilities domestically and internationally, we may not be able to effectively commercialize our products, which would adversely affect our business, results of operations, and financial condition.

Our business could suffer if we lose the services of key members of our senior management, key advisors or personnel.

We are dependent upon the continued services of key members of our senior management and a limited number of key advisors and personnel. The loss of members of our senior management team, key advisors or personnel, or our inability to attract or retain other qualified personnel or advisors, could have a material adverse effect on our business, results of operations, and financial condition. We do not maintain "key person" insurance for any of our executives or employees. In addition, several of the members of our executive management team are not subject to non-competition agreements that restrict their ability to compete with us. Accordingly, the adverse effect resulting from the loss of certain executives could be compounded by our inability to prevent them from competing with us.

Our business is highly reliant on a base of skilled employees, including those serving in engineering, information technology, operational, strategic marketing and sales functions. Many of these employees have developed specialized skills which are valuable within the medical device and life sciences industry, and, in some cases, in a broader variety of industries. Competition for skilled employees is significant, and some of the labor markets we compete in have experienced tightening in the past year. In addition, rates of employee turnover have increased among our employees, consistent with the rates experienced by other companies in these industries. If these conditions persist, we could experience further turnover among our employees which could become difficult and more costly to manage, adversely impacting our results of operation. Sustained pressure in these labor markets could also cause prevailing wages to rise, which could adversely impact our business, results of operation and financial condition.

If use of our products results in adverse events, this may require them to be taken off the market, require them to include safety warnings or otherwise limit their sales.

Unforeseen adverse events related to our products could arise either during clinical development or, if cleared, approved, or subject to CE Certificate of Conformity, after the product has been marketed. In clinical research, the most common adverse event related to our implant was leg pain resulting from misplacement. The most common adverse event for our implant procedure has been minor wound infections. Additional adverse effects from iFuse or any of our other products could arise either during clinical development or, if approved, cleared, or subject to CE Certificate of Conformity, after the product has been marketed.

If we or others later identify adverse events caused by our products:

- sales of the product may decrease significantly, and we may not achieve the anticipated market share;
- regulatory authorities or our Notified Body may require changes to the labeling of our product. This may include the addition of labeling statements, specific warnings, and contraindications and issuing field alerts to physicians and patients;
- we may be required to change instructions regarding the way the product is implanted or conduct additional clinical trials;
- we may be subject to limitations on how we may promote the product;
- regulatory authorities may require us to temporarily or permanently take our approved product off the market or to conduct other field safety corrective actions;
- we may be required to modify our product;
- we may be subject to litigation fines or product liability claims; and
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the affected product or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenue from the sale of our products.

Unfavorable media reports or other negative publicity concerning both alleged improper methods of tissue recovery from donors and disease transmission from donated tissue could limit widespread acceptance of some of our products.

We introduced iFuse Bone, an implantable bone product manufactured from sterilized recovered cadaveric bone tissue, to meet the demand of some of our surgeon customers to use implantable bone products to support and augment the patient's own bone tissue in orthopedic procedures. Unfavorable reports of improper or illegal tissue recovery practices, both in the United States and internationally, as well as incidents of improperly processed tissue leading to the transmission of disease, may affect the rate of future tissue donation and market acceptance of technologies incorporating human tissue. In addition, negative publicity could cause the families of potential donors to become reluctant to donate tissue to for-profit tissue processors. These reports could have a negative effect on sales of iFuse Bone.

Various factors outside our direct control may adversely affect manufacturing, sterilization, and distribution of our products.

The manufacture, sterilization, and distribution of our products is challenging. Changes that our suppliers may make outside the purview of our direct control can have an impact on our processes, quality of our products, and the successful delivery of products to our customers. Mistakes and mishandling are not uncommon and can affect supply and delivery. Some of these risks include:

- failure to complete sterilization on time or in compliance with the required regulatory standards;
- transportation and import and export risk;
- delays in analytical results or failure of analytical techniques that we depend on for quality control and release of products;
- large-scale epidemics of communicable diseases such as COVID-19;
- supply chain disruptions, including those caused by material and labor supply shortages in the wake of COVID-19;
- natural disasters, labor disputes, financial distress, raw material availability, issues with facilities and equipment, or other forms of disruption to business operations affecting our manufacturers or suppliers; and
- latent defects that may become apparent after products have been released and that may result in a recall or field safety corrective action with respect to such products.

If any of these risks were to materialize, our ability to provide our products to customers on a timely basis could be adversely impacted.

We are dependent on a limited number of third-party suppliers, some of them single-source and some of them in single locations, for most of our products and components, and the loss of any of these suppliers, or their inability to provide us with an adequate supply of materials in a timely and cost-effective manner, could materially adversely affect our business.

We rely on third-party suppliers to manufacture and supply substantially all of our products. For us to be successful, our suppliers must be able to provide us with products and components in substantial quantities, in compliance with regulatory requirements, in accordance with agreed upon specifications, at acceptable prices, and on a timely basis. We do not have long-term supply contracts for some of our suppliers, and in some cases, even where we do have agreements in place, we purchase important parts of the iFuse Implant System, including our implants, from a single supplier. Therefore, we cannot assure investors that we will be able to obtain sufficient quantities of product in the future.

In addition, future growth could strain the ability of our suppliers to deliver products, materials, and components. Suppliers often experience difficulties in scaling up production, including financial issues, or problems with production yields and quality control and assurance. For example, from time to time, we have experienced certain delays and may experience delays from our suppliers in the future.

We generally use a small number of suppliers for our instruments and currently rely on RMS for iFuse-3D implants and Orchid for iFuse implants. Our dependence on such a limited number of suppliers exposes us to risks, including, among other things:

- third-party contract manufacturers or suppliers may fail to comply with regulatory requirements or make errors in manufacturing that could negatively affect the safety or effectiveness of our products or cause delays in shipments of our products;
- third-party contract manufacturers or suppliers may fail to maintain good manufacturing practices, leading to quality control problems or regulatory findings that could cause disruptions in their manufacturing processes and lead to delays in shipments of our products;
- we or our third-party manufacturers and suppliers may not be able to respond to unanticipated changes in customer orders, and if orders do not match forecasts, we or our suppliers may have excess or inadequate inventory of materials and components;
- we or our third-party manufacturers and suppliers may be subject to price fluctuations due to a lack of long-term supply arrangements for key components;
- we or our third-party manufacturers and suppliers may lose access to critical services, raw materials and components, or experience significant delays in obtaining them, resulting in an interruption in the manufacture, assembly and shipment of our systems;

- we or our third-party manufacturers could experience plant closures due to local epidemics of communicable diseases, such as COVID-19, or local outbreaks of such diseases among their workforce, thereby shuttering a plant in which our products are manufactured;

- we may experience delays in delivery by our third-party manufacturers and suppliers due to changes in demand from us or their other customers;

- fluctuations in demand for products that our third-party manufacturers and suppliers manufacture for others may affect their ability or willingness to deliver components to us in a timely manner;

- our third-party manufacturers and suppliers may wish to discontinue supplying components or services to us for risk management reasons;

- we may not be able to find new or alternative components or reconfigure our system and manufacturing processes in a timely manner if the necessary components become unavailable; and

- our third-party manufacturers and suppliers may encounter financial hardships unrelated to our demand, which could inhibit their ability to fulfill our orders and meet our requirements.

If any one or more of these risks materialize, it could significantly increase our costs and impact our ability to meet demand for our products and to launch new products. If we are unable to satisfy commercial demand for our system in a timely manner, our ability to generate revenue would be impaired, market acceptance of our products could be adversely affected, and customers may instead purchase or use our competitors' products. Additionally, we could be forced to seek alternative sources of supply.

In addition, most of our supply and manufacturing agreements do not have minimum manufacturing or purchase obligations. As such, with many of our suppliers, we have no obligation to buy any given quantity of products, and the suppliers have no obligation to sell us or to manufacture for us any given quantity of components or products. As a result, our ability to purchase adequate quantities of components or our products may be limited and we may not be able to convince suppliers to make components and products available to us in some instances. Our suppliers may also encounter problems that limit their ability to supply components or manufacture products for us, including financial difficulties, damage to their manufacturing equipment or facilities, product discontinuations or adverse findings in quality audits. As a result, there is a risk that certain components could be discontinued and no longer available to us. We may be required to make significant "last time" purchases of component inventory that is being discontinued by the supplier to ensure supply continuity. If we fail to obtain sufficient quantities of high quality components to meet demand for our products in a timely manner or on terms acceptable to us, we would have to seek alternative sources of supply. Securing a replacement third-party manufacturer or supplier could be difficult. The introduction of new or alternative manufacturers or suppliers also may require design changes to our iFuse system that are subject to domestic and international regulatory clearances or approvals and the review of our Notified Body.

Because of the nature of our internal quality control requirements, regulatory requirements, and the custom and proprietary nature of the parts, we may not be able to quickly engage additional or replacement suppliers for many of our critical components. We may also be required to assess any potential new manufacturer's compliance with all applicable regulations and guidelines, which could further impede our ability to manufacture our products in a timely manner. As a result, we could incur increased production costs, experience delays in deliveries of our products, suffer damage to our reputation, and experience an adverse effect on our business and financial results. Failure of any of our third-party suppliers to meet our product demand level would limit our ability to meet our sales commitments to our customers and could have a material adverse effect on our business.

We may also have difficulty obtaining similar components from other suppliers that are acceptable to the FDA, our Notified Body and the competent authorities in the countries of the EEA, or other foreign regulatory authorities, and the failure of our suppliers to comply with strictly enforced regulatory requirements could expose us to delays in obtaining clearances or approvals, regulatory action including warning letters, product recalls, termination of distribution, product seizures, civil, administrative, or criminal penalties and the suspension, variation, or withdrawal of our CE Certificates of Conformity. We could incur delays while we locate and engage qualified alternative suppliers, and we may be unable to engage alternative suppliers on favorable terms or at all. Any such disruption or increased expenses could harm our commercialization efforts and adversely affect our ability to generate sales.

In addition, each of our third-party suppliers operates at a facility in a single location and substantially all of our inventory of component supplies and finished goods is held at these locations. A local outbreak of COVID-19 cases, vandalism, terrorism, or a natural or other disaster, such as an earthquake, fire, or flood, could damage or destroy equipment or our inventory of component supplies or finished products, cause substantial delays in our operations, result in the loss of key information, and cause us to incur additional expenses. Our insurance may not cover our losses in any particular case. In addition, regardless of the level of insurance coverage, damage to our or our suppliers' facilities could harm our business, financial condition, and operating results.

We may encounter problems or delays in the assembly of our products or fail to meet certain regulatory requirements which could result in an adverse effect on our business and financial results.

To become profitable we must assemble our products in adequate quantities in compliance with regulatory requirements and at an acceptable cost. Increasing our capacity to assemble and test our products will require us to improve internal efficiencies. We may encounter a number of difficulties in increasing our assembly and testing capacity, including:

- managing production yields;
- maintaining quality control and assurance;
- providing component and service availability;
- maintaining adequate control policies and procedures;
- hiring and retaining qualified personnel; and
- complying with state, federal, and foreign regulations.

If we are unable to satisfy commercial demand for our products due to our inability to assemble and test, our ability to generate revenue would be impaired, market acceptance of our products could be adversely affected and customers may instead purchase or use our competitors' products.

If we do not enhance and broaden our product offerings through our research and development efforts, we may be unable to compete effectively.

In order to increase our market share in the sacroiliac joint fusion and related markets, we must enhance and broaden our product offerings in response to customer demands and competitive pressures and technologies. We might not be able to successfully develop, obtain domestic and international regulatory clearances or approvals, or CE Certificates of Conformity for, or market new products, and our future products might not be accepted by the surgeons or the third-party payors who reimburse for many of the procedures performed with our products. The success of any new product offering or enhancement to an existing product will depend on numerous factors, including our ability to:

- properly identify and anticipate surgeon and patient needs;
- develop and introduce new products or product enhancements in a timely manner;
- create sufficient product differentiation to expand overall market share and minimize cannibalization of existing product markets;
- adequately protect our intellectual property and avoid infringing upon the intellectual property rights of third parties;
- demonstrate the safety and effectiveness of new products; and
- obtain the necessary domestic and international regulatory clearances or approvals and CE Certificates of Conformity for new products or product enhancements.

If we do not develop and obtain domestic and international regulatory clearances or approvals and CE Certificates of Conformity for new products or product enhancements in time to meet market demand, or if there is insufficient demand for these products or enhancements, our business could be adversely affected. Our research and development efforts may require a substantial investment of time and resources before we are adequately able to determine the commercial viability of a new product, technology, material, or other innovation. In some cases, following a successful product development effort, we may need to invest substantial resources in surgical instrumentation and implant inventory, prior to launch of the product, and before we understand the demand for such product. If we overestimate the demand for such products and invest too heavily in inventory to support the product line, the additional revenue and product margins may not produce a positive return on such investments, which could cause our financial results to suffer. In addition, even if we are able to successfully develop enhancements or new generations of our products, these enhancements or new generations of products may not produce sales in excess of the costs of development and they may be quickly rendered obsolete by changing customer preferences or the introduction by our competitors of products embodying new technologies or features.

We are required to maintain adequate levels of inventory, the failure of which could consume our resources and reduce our cash flows.

As a result of the need to maintain adequate levels of inventory, we are subject to the risk of inventory obsolescence. Many of our products come in sets, which feature components in a variety of sizes so that the implant or device may be chosen for size based on the patient's needs. In order to market our products effectively, we often maintain and provide surgeons and hospitals with back-up products and products of different sizes. For each surgery, fewer than all of the components of the set are used, and therefore certain portions of the set may become obsolete before they can be used. In addition, as we introduce new implants and instruments with the same intended uses as existing products, the older products may fall out of favor with our customers, causing them to become obsolete. In the event that a substantial portion of our inventory becomes obsolete, it could have a material adverse effect on our earnings and cash flows due to the resulting costs associated with the inventory impairment charges and costs required to replace such inventory.

The size and future growth in the market for our iFuse products has not been established with precision and may be smaller than we estimate, possibly materially. In addition, we estimate cost savings to the economy and healthcare system as a result of the iFuse procedure based on our market research. If our estimates and projections overestimate the size of this market or these benefits and cost savings, our sales growth may be adversely affected.

We are not aware of an independent third-party study that reliably reports the potential market size for our iFuse products or cost savings as a result of the iFuse procedure. Therefore, our estimates of the size and potential for future growth in the market for our iFuse products, cost savings to patients, the healthcare system and the economy overall from its use, and the number of people currently suffering from lower back pain who may benefit from and be amenable to our iFuse procedure, is based on a number of internal and third-party studies, surveys, reports, and estimates. While we believe these factors have historically provided and may continue to provide us with effective tools in estimating the total market for our iFuse products and procedures and health cost savings, these estimates may not be correct and the conditions supporting our estimates may change at any time, thereby reducing the predictive accuracy of these underlying factors. The actual incidence of lower back pain, and the actual demand for our products or competitive products, could differ materially from our projections if our assumptions and estimates are incorrect. As a result, our estimates of the size and future growth in the market for our iFuse products may prove to be incorrect. In addition, actual health cost savings to the healthcare system as a result of the iFuse procedure may materially differ from those we expect. If the actual number of people with lower back pain who would benefit from our iFuse products and the size and future growth in the market for iFuse products and related costs savings to the healthcare system is smaller than we have estimated, it may impair our sales growth and have an adverse impact on our business.

Our results of operations could suffer if we are unable to manage our international business effectively.

Expansion into international markets is an element of our business strategy and involves risk. The sale and shipment of our products across international borders, as well as the purchase of components and products from international sources, subject us to extensive U.S. and foreign governmental trade, import, and export and customs regulations and laws. Compliance with these regulations and laws is costly and exposes us to penalties for non-compliance. Other laws and regulations that can significantly affect us include various anti-bribery laws, including the U.S. Foreign Corrupt Practices Act ("FCPA"), and the United Kingdom Bribery Act ("UKBA"), anti-boycott laws, anti-money laundering laws, and regulations relating to economic sanctions imposed by the U.S., including the Office of Foreign Asset Control of the U.S. Treasury. Any failure to comply with applicable legal and regulatory obligations in the U.S. or abroad could adversely affect us in a variety of ways that include, but are not limited to, significant criminal, civil and administrative penalties, including imprisonment of individuals, fines and penalties, denial of export privileges, seizure of shipments and restrictions on certain business activities. Also, the failure to comply with applicable legal and regulatory obligations could result in the disruption of our distribution and sales activities.

In addition, some of the countries in which we sell or plan to sell our products are, to some degree, subject to various risks, including:

- exposure to different legal and regulatory standards;
- lack of stringent protection of intellectual property;
- inability of the local healthcare system to absorb prices for our product that would enable our business to become profitable in those markets;
- obstacles to obtaining domestic and foreign export, import, and other governmental approvals, permits, and licenses and compliance with foreign laws;
- potentially adverse tax consequences and the complexities of foreign value-added tax systems;
- adverse changes in tariffs and trade restrictions;

- limitations on the repatriation of earnings;
- difficulties in staffing and managing foreign operations;
- insufficient numbers of patients requiring procedures that use our products;
- transportation delays and difficulties of managing international distribution channels;
- longer collection periods and difficulties in collecting receivables from foreign entities;
- increased financing costs;
- currency risks; and
- political, social, and economic instability and increased security concerns.

These risks may limit or disrupt our expansion, restrict the movement of funds or result in the deprivation of contractual rights or the taking of property by nationalization or expropriation without fair compensation.

Our successful conduct of our international business depends, in part, on our ability to develop and implement policies and strategies that are effective in anticipating and managing these and other risks in the countries in which we plan to do business. Failure to manage these and other risks may have a material adverse effect on our operations in any particular country and on our business as a whole.

In the future our products may become obsolete, which would negatively affect operations and financial condition.

The medical device industry is characterized by rapid and significant change. There can be no assurance that other companies will not succeed in developing or marketing devices, and products that are more effective than our iFuse system or that would render the iFuse system obsolete or noncompetitive. Additionally, new surgical procedures, medications and other therapies could be developed that replace or reduce the importance of our product. Accordingly, our success will depend in part on our ability to respond quickly to changes in technology and the practice of medicine through the development and introduction of new products. Product development involves a high degree of risk and there can be no assurance that our new product development efforts will result in any commercially successful products.

If we experience significant disruptions in our information technology systems, our business, results of operations, and financial condition could be adversely affected.

The efficient operation of our business depends on our information technology systems. We rely on our information technology systems to effectively manage:

- sales and marketing, accounting, and financial functions;
- customer relationship management;
- inventory management;
- compliance and regulatory reporting requirements;
- engineering and product development tasks; and
- our research and development data.

Our information technology systems are vulnerable to damage or interruption from:

- earthquakes, fires, floods, and other natural disasters;
- terrorist attacks and attacks by computer viruses or hackers or internal or external breaches of our cybersecurity;
- power losses; and
- computer systems, internet, telecommunications, or data network failures.

The failure of our information technology systems to perform as we anticipate or our failure to effectively implement new systems could disrupt our entire operation and could result in decreased sales, increased overhead costs, excess inventory and product

shortages, and legal liability issues, all of which could have a material adverse effect on our reputation, business, results of operations, and financial condition.

Like other public companies, we have in the past, and in the future could be subject to instances of phishing attacks on our email systems, other cyber-attacks, industrial espionage, insider threats, computer denial-of-service attacks, computer viruses, ransomware and other malware, wire fraud or other cyber incidents. The techniques used to obtain unauthorized access, or to sabotage systems, are becoming more sophisticated, frequent and adaptive, and therefore we may be unable to anticipate these techniques or to implement adequate preventative measures. Any security breach could result in: the unauthorized publication of our confidential business or proprietary information; the unauthorized release of employee, customer or vendor data and payment information; a loss of confidence by our customers; damage to our reputation; a disruption to our business; litigation and legal liability; and a negative impact on our future sales. In addition, the cost and operational consequences of implementing further data protection or data restoration measures could be significant.

In addition, we accept payments for many of our sales through credit card transactions, which are handled through third-party payment processors. As a result, we are subject to a number of risks related to credit card payments. As a result of these transactions, we pay interchange and other fees, which may increase over time and could require us to either increase the prices we charge for our products or experience an increase in our costs and expenses. In addition, as part of the payment processing process, we transmit our customers' credit card information to our third-party payment processor. We may in the future become subject to lawsuits or other proceedings for purportedly fraudulent transactions arising out of the actual or alleged theft of our customers' credit card information if the security of our third-party credit card payment processors are breached. We and our third-party credit card payment processors are also subject to payment card association operating rules, certification requirements and rules governing electronic funds transfers, which could change or be reinterpreted to make it difficult or impossible for us to comply. If we or our third-party credit card payment processors fail to comply with these rules or requirements, we may be subject to fines and higher transaction fees and lose our ability to accept credit card payments from our customers, and there may be an adverse impact on our business.

We may seek to grow our business through acquisitions of or investments in new or complementary businesses, products or technologies, and the failure to manage acquisitions or investments, or the failure to integrate them with our existing business, could have a material adverse effect on us.

From time to time, we expect to consider opportunities to acquire or make investments in other technologies, products, and businesses that may enhance our capabilities, complement our current products, or expand the breadth of our markets or customer base. Potential and completed acquisitions and strategic investments involve numerous risks, including:

- problems assimilating the purchased technologies, products, or business operations;
- issues maintaining uniform standards, procedures, controls, and policies;
- unanticipated costs and liabilities associated with acquisitions;
- diversion of management's attention from our core business;
- adverse effects on existing business relationships with suppliers and customers;
- risks associated with entering new markets in which we have limited or no experience;
- potential loss of key employees of acquired businesses; and
- increased legal and accounting compliance costs.

We have no current commitments with respect to any acquisition or investment. We do not know if we will be able to identify acquisitions we deem suitable, whether we will be able to successfully complete any such acquisitions on favorable terms or at all, or whether we will be able to successfully integrate any acquired business, product, or technology into our business or retain any key personnel, suppliers, or distributors. Our ability to successfully grow through acquisitions depends upon our ability to identify, negotiate, complete, and integrate suitable target businesses and to obtain any necessary financing. These efforts could be expensive and time consuming, and may disrupt our ongoing business and prevent management from focusing on our operations. If we are unable to successfully integrate any acquired businesses, products, or technologies effectively, our business, results of operations, and financial condition will be materially adversely affected.

We may enter into collaborations, in-licensing arrangements, joint ventures, strategic alliances, or partnerships with third-parties that may not result in the development of commercially viable products or the generation of significant future revenue.

In the ordinary course of our business, we may enter into collaborations, in-licensing arrangements, joint ventures, strategic alliances, partnerships, or other arrangements to develop products and to pursue new markets. Proposing, negotiating, and implementing collaborations, in-licensing arrangements, joint ventures, strategic alliances, or partnerships may be a lengthy and complex process. Other companies, including those with substantially greater financial, marketing, sales, technology, or other business resources, may compete with us for these opportunities or arrangements. We may not identify, secure, or complete any such transactions or arrangements in a timely manner, on a cost-effective basis, on acceptable terms or at all. We have limited institutional knowledge and experience with respect to these business development activities, and we may also not realize the anticipated benefits of any such transaction or arrangement. In particular, these collaborations may not result in the development of products that achieve commercial success or result in significant revenue and could be terminated prior to developing any products.

Additionally, we may not be in a position to exercise sole decision-making authority regarding the transaction or arrangement, which could create the potential risk of creating impasses on decisions, and our future collaborators may have economic or business interests or goals that are, or that may become, inconsistent with our business interests or goals. It is possible that conflicts may arise with our collaborators, such as conflicts concerning the achievement of performance milestones, or the interpretation of significant terms under any agreement, such as those related to financial obligations or the ownership or control of intellectual property developed during the collaboration. If any conflicts arise with any collaborators, they may act in their self-interest, which may be adverse to our best interest, and they may breach their obligations to us. In addition, we may have limited control over the amount and timing of resources that any future collaborators devote to our or their future products.

Disputes between us and our collaborators may result in litigation or arbitration which would increase our expenses and divert the attention of our management. Further, these transactions and arrangements will be contractual in nature and will generally be terminable under the terms of the applicable agreements and, in such event, we may not continue to have rights to the products relating to such transaction or arrangement or may need to purchase such rights at a premium. If we enter into in-bound intellectual property license agreements, we may not be able to fully protect the licensed intellectual property rights or maintain those licenses. Future licensors could retain the right to prosecute and defend the intellectual property rights licensed to us, in which case we would depend on the ability of our licensors to obtain, maintain and enforce intellectual property protection for the licensed intellectual property. These licensors may determine not to pursue litigation against other companies or may pursue such litigation less aggressively than we would. Further, entering into such license agreements could impose various diligence, commercialization, royalty, or other obligations on us. Future licensors may allege that we have breached our license agreement with them, and accordingly seek to terminate our license, which could adversely affect our competitive business position and harm our business prospects.

Our term loan contains covenants that may restrict our business and financing activities.

Our Loan and Security Agreement (as amended, the "Amended Loan Agreement") with Silicon Valley Bank (“SVB”) contains customary events of default, including bankruptcy, the failure to make payments when due, the occurrence of a material impairment on SVB's security interest over the collateral, a material adverse change, the occurrence of a default under certain other indebtedness incurred by us or our subsidiaries, the rendering of certain types of judgments against us and our subsidiaries, the revocation of certain government approvals, violation of covenants, and incorrectness of representations and warranties in any material respect.

The Amended Loan Agreement is secured by substantially all our assets other than our intellectual property. The Amended Loan Agreement includes affirmative and negative covenants applicable to us and certain of our foreign subsidiaries. The affirmative covenants include, among others, covenants requiring us to maintain our legal existence and governmental compliance, deliver certain financial reports, and maintain insurance coverage. The negative covenants include, among others, restrictions regarding transferring collateral, pledging our intellectual property to other parties, engaging in mergers or acquisitions, paying dividends or making other distributions, incurring indebtedness, transacting with affiliates, and entering into certain investments, in each case subject to certain exceptions.

The covenants in the Amended Loan Agreement, as well as any future financing agreements that we may enter into, may restrict our ability to finance our operations, engage in, expand, or otherwise pursue our business activities and strategies. Our ability to comply with these covenants may be affected by events beyond our control, and future breaches of any of these covenants could result in a default under our credit facility agreements. If not waived, future defaults could cause all of the outstanding indebtedness under the Amended Loan Agreement to become immediately due and payable.

If we do not have or are unable to generate sufficient cash available to repay our debt obligations when they become due and payable, either upon maturity or in the event of a default, we may not be able to obtain additional debt or equity financing on favorable terms, if at all, which may negatively impact our ability to operate our business.

Risks Related to Our Legal and Regulatory Environment

We, our suppliers, and our third-party manufacturers are subject to extensive governmental regulation both in the U.S. and abroad, and failure to comply with applicable requirements could cause our business to suffer.

The medical device industry is regulated extensively by governmental authorities, principally the FDA and corresponding state and foreign regulatory agencies. The FDA and other U.S. and foreign governmental agencies regulate, among other things, with respect to medical devices:

- design, development, and manufacturing;
- testing, labeling, content, and language of instructions for use and storage;
- clinical trials;
- product safety;
- marketing, sales, and distribution;
- premarket clearance and approval;
- conformity assessment procedures;
- record keeping procedures;
- advertising and promotion;
- compliance with good manufacturing practices requirements;
- recalls and field safety corrective actions;
- post-market surveillance, including reporting of deaths or serious injuries and malfunctions that, if they were to recur, could lead to death or serious injury;
- post-market approval studies; and
- product import and export.

The regulations to which we are subject are complex and have tended to become more stringent over time. Regulatory changes could result in restrictions on our ability to carry on or expand our operations, difficulties achieving new product clearances, higher than anticipated costs or lower than anticipated sales.

Before we can market or sell a new regulated product or make a significant modification to an existing product in the U.S., with limited exceptions, we must obtain either clearance under Section 510(k) of the FDCA for Class II devices or approval of a PMA application from the FDA for a Class III device. In the 510(k) clearance process, the FDA must determine that a proposed device is "substantially equivalent" to a device legally on the market, known as a "predicate" device, with respect to intended use, technology, and safety and effectiveness, in order to clear the proposed device for marketing. Clinical data is sometimes required to support substantial equivalence. The PMA pathway requires an applicant to demonstrate the safety and effectiveness of the device based, in part, on extensive data, including, but not limited to, technical, pre-clinical, clinical trial, 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 devices. Products that are approved through a PMA application generally need FDA approval before they can be modified. Similarly, some modifications made to products cleared through a 510(k) may require a new 510(k). Both the 510(k) and PMA processes can be expensive and lengthy and require the payment of significant fees, unless exempt. The FDA's 510(k) clearance process usually takes from three to 12 months, but may last longer. The process of obtaining a PMA is much more costly and uncertain than the 510(k) clearance process and generally takes from one to three years, or even longer, from the time the application is submitted to the FDA until an approval is obtained. The process of obtaining domestic and international regulatory clearances or approvals to market a medical device can be costly and time consuming, and we may not be able to obtain these clearances or approvals on a timely basis, if at all.

In the U.S., our currently commercialized products have either received premarket clearance under Section 510(k) of the FDCA or are exempt from premarket review. If the FDA requires us to go through a lengthier, more rigorous examination for future products or modifications to existing products than we expect, our product introductions or modifications could be delayed or canceled, which could cause our sales to decline. In addition, the FDA may determine that future products will require the more costly, lengthy, and uncertain PMA process. Although we do not currently market any devices under PMA, the FDA may demand that we obtain a PMA prior to marketing certain of our future products. In addition, if the FDA disagrees with our determination that a product we currently market is subject to an exemption from premarket review, the FDA may require us to submit a 510(k) or PMA in order to continue marketing the product. Further, even with respect to those future products where a PMA is not required, we cannot assure investors that we will be able to obtain the 510(k) clearances with respect to those products.

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

- we may not be able to demonstrate to the FDA's satisfaction that our products are safe and effective for their intended uses;
- the data from our pre-clinical studies and clinical trials may be insufficient to support clearance or approval, where required; and
- the manufacturing process or facilities we use may not meet applicable requirements.

In addition, the FDA may change its clearance and approval policies, adopt additional regulations or revise existing regulations, or take other actions which may prevent or delay clearance or approval of our products under development or impact our ability to modify our currently approved or cleared products on a timely basis.

Any delay in, or failure to receive or maintain, clearance or approval for our products under development could prevent us from generating revenue from these products or achieving profitability.

In addition, even after we have obtained the proper regulatory clearance or approval to market a product, the FDA has the power to require us to conduct post-marketing studies. These studies can be very expensive and time consuming to conduct. Failure to comply with those studies in a timely manner could result in the revocation of the 510(k) clearance for a product that is subject to such a 522 Order and the recall or withdrawal of the product, which could prevent us from generating sales from that product in the U.S.

In the EEA, a single regulatory approval process exists, and conformity with its requirements is required to affix a CE mark to our medical devices, without which they cannot be marketed or sold in the EEA. To obtain a CE mark, defined products must meet minimum standards of performance, safety, and quality, and then, according to their classification, undergo a conformity assessment procedure. Except for low risk medical devices, a conformity assessment procedure requires the intervention of a third-party organization designated by the competent authorities of a EEA country, known as a Notified Body. The competent authorities of the E.U. countries separately regulate the clinical research for medical devices and the market surveillance of products once they are placed on the market. A new Medical Device Regulation was published by the E.U. in 2017 and became effective on May 26, 2021. Medical devices marketed in the EEA will require certification according to these new requirements, except that devices with valid CE certificates, issued pursuant to the Medical Device Directives before May 2020, can be placed on the market until May 2024. The new EU MDR includes significant additional premarket and post-market requirements. Penalties for regulatory non-compliance could be severe, including fines and revocation or suspension of a company's business license, mandatory price reductions and criminal sanctions.

The FDA and other regulatory authorities, including foreign authorities, have broad enforcement powers. Regulatory enforcement or inquiries, or other increased scrutiny on us, could dissuade some surgeons from using our products and adversely affect our reputation and the perceived safety and effectiveness of our products.

Failure to comply with applicable regulations could jeopardize our ability to sell our products and result in enforcement actions such as:

- warning letters;
- fines;
- injunctions;
- civil penalties;
- termination of distribution;
- recalls or seizures of products;

- delays in the introduction of products into the market;
- total or partial suspension of production;
- facility closures;
- refusal of the FDA or our Notified Body or other regulator to grant future clearances or approvals or to issue CE Certificates of Conformity;
- withdrawals, variation, or suspensions of current clearances or approvals and CE Certificates of Conformity, resulting in prohibitions on sales of our products; and
- in the most serious cases, criminal penalties.

Adverse action by an applicable regulatory agency, our Notified Body or the FDA could result in inability to produce our products in a cost-effective and timely manner, or at all, decreased sales, higher prices, lower margins, additional unplanned costs or actions, damage to our reputation, and could have material adverse effect on our reputation, business, results of operations, and financial condition.

We and our sales representatives must comply with U.S. federal and state fraud and abuse laws, including those relating to healthcare provider kickbacks and false claims for reimbursement, and other applicable federal and state healthcare laws, as well as equivalent foreign laws, and failure to comply could negatively affect our business.

Healthcare providers, distributors and third-party payors play a primary role in the distribution, recommendation, ordering, and purchasing of any implant or other medical device for which we have or obtain marketing clearance or approval. Through our arrangements with customers and third-party payors, we are exposed to the risk that our employees, independent contractors, principal investigators, consultants, vendors, or third-party distributors may engage in fraudulent or other illegal activity. Misconduct by these parties could include, among other infractions or violations, intentional, reckless and/or negligent conduct or unauthorized activity that violates FDA regulations, manufacturing standards, federal and state healthcare fraud and abuse laws and regulations, laws that require the true, complete, and accurate reporting of financial information or data, other commercial or regulatory laws or requirements, and equivalent foreign rules. 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 this activity 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 comply with such laws or regulations, and government authorities may conclude that our business practices do not comply with applicable fraud and abuse or other healthcare laws and regulations or guidance despite our good faith efforts to comply.

There are numerous U.S. federal and state laws pertaining to healthcare fraud and abuse, including anti-kickback and false claims laws. Our relationships and our distributors' relationships with surgeons, other healthcare professionals, and hospitals are subject to scrutiny under these laws. For example, we are subject to the federal health care Anti-Kickback Statute, the federal civil False Claims Act, the Health Insurance Portability and Accountability Act ("HIPAA") and the federal Physician Payment Sunshine Act, each of which is described in detail in Item 1 Business - Healthcare Fraud and Abuse" and "-Data Privacy and Security Laws".

Certain states and countries also have enacted analogous state and foreign law equivalents of each of the above federal laws and may also mandate implementation of corporate compliance programs, require compliance with the industry's voluntary compliance guidelines, impose restrictions on device manufacturer marketing practices, and/or require tracking and reporting of gifts, compensation, and other remuneration to healthcare professionals and entities. Many of these state and foreign laws differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

If we or our employees are found to have violated any of the above laws we may be subject to significant administrative, civil and criminal penalties, including imprisonment, exclusion from participation in federal healthcare programs, such as Medicare, Medicaid, and equivalent foreign programs, significant fines, monetary penalties and damages, imposition of compliance obligations and monitoring, the curtailment or restructuring of our operations, and damage to our reputation.

We have entered into consulting agreements and royalty agreements with physicians and healthcare executives, including some who are customers. We also engage in co-marketing arrangements with certain surgeons who use our products. In addition, prior to our IPO, a small number of our current customer surgeons acquired from us less than 1.0% of our current outstanding common stock, which they either purchased in an arm's length transaction on terms identical to those offered to others or received from us as fair market value consideration for consulting services performed. While all of these transactions were structured to comply with applicable laws, including the federal Anti-Kickback Statute, state anti-kickback laws and other applicable laws, it is possible that regulatory agencies may view these transactions as prohibited arrangements that must be restructured, or discontinued, or for which we could be subject to significant penalties and criminal, civil and administrative liability. We would be materially and adversely affected if regulatory agencies interpret our financial relationships with surgeons who order our products to be in violation of

applicable laws and we were unable to comply with such laws, which could subject us to, among other things, monetary penalties for non-compliance, the cost of which could be substantial.

Various state and federal regulatory and enforcement agencies continue actively to investigate violations of health care laws and regulations, and the U.S. Congress continues to strengthen the arsenal of enforcement tools. To enforce compliance with the federal laws, the U.S. Department of Justice has continued its scrutiny of interactions between healthcare companies and healthcare providers, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Dealing with investigations can be time- and resource-consuming and can divert management's attention from the business. Additionally, if a healthcare company settles an investigation with the Department of Justice or other law enforcement agencies, it may need to agree to additional onerous compliance and reporting requirements as part of a consent decree, deferred or non-prosecution agreement, or corporate integrity agreement. Any such investigation or settlement could increase our costs or otherwise have an adverse effect on our business. Even if we are not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm our financial condition and divert resources and the attention of our management from operating our business.

The scope and enforcement of these laws is uncertain and subject to rapid change. The shifting compliance environment and the need to build and maintain robust and expandable systems and processes to comply with different compliance and/or reporting requirements in multiple jurisdictions increase the possibility that we may run afoul of one or more of the requirements or that federal or state regulatory authorities might challenge our current or future activities under these laws. Additionally, we cannot predict the impact of any changes in these laws, whether or not retroactive.

Our failure to adequately protect personal information in compliance with evolving legal requirements could harm our business.

In the ordinary course of our business, we collect and store sensitive data, including legally protected personally identifiable information. We collect this kind of information for billing, reimbursement support, marketing purposes, post-marketing safety vigilance, servicing potential warranty claims and during the course of clinical trials. In doing so, we are subject to various federal, state and foreign laws that protect the confidentiality of certain patient health information, including patient medical records, and restrict the use and disclosure of patient health information by healthcare providers, such as HIPAA in the U.S. and regulations in the European Union ("EU"), which are described in detail in Item 1 Business - Data Privacy and Security Laws".

The California Consumer Privacy Act, which became effective on January 1, 2020, as amended by the California Privacy Rights Act ("CCPA"), requires a broad range of businesses to honor the requests of California residents to access and require deletion of their personal information, opt out of certain personal information sharing, receive detailed information about how their personal information is used and shared, correct inaccurate personal information, and limit the use and disclosure of certain sensitive personal information. The CCPA provides for civil penalties of up to $7,500 for intentional violations, and a private right of action for data breaches that allows private plaintiffs to seek the greater of actual damages or statutory damages of up to $750 per consumer per data breach. These remedies are expected to increase data breach litigation. Although the CCPA includes exemptions for certain clinical trials data, and protected health information governed by HIPAA, the law may increase our compliance costs and potential liability with respect to other personal information we collect about California residents. Our compliance costs and potential liability with respect to personal information may also increase in response to other states adopting and considering initiative regarding protection of personal information. In March 2021, Virginia passed the Consumer Data Protection Act ("CDPA") which will take effect on January 1, 2023. Virginia is the second state to pass comprehensive privacy litigation. Colorado passed the Colorado Privacy Act ("CPA") on July 7, 2021 with enforcement to begin on July 1, 2023. In 2022, both Utah and Connecticut also enacted comprehensive data privacy legislation. While these laws are similar in certain respects, the laws differ and compliance with one law does not equate to compliance with the other laws. Several other states (including Washington, New York, and Minnesota) also are considering comprehensive privacy legislation that could further complicate and increase the cost of complying with various state privacy laws. If states pass a patchwork of privacy laws, this also could increase pressure on the U.S. Congress to harmonize privacy laws through federal legislation.

We have in the past, and could be in the future, subject to data breaches. Our failure to comply with applicable laws and regulations, or to protect such data, could result in enforcement actions against us, including fines, imprisonment of company officials and public censure, claims for damages by end-customers, and other affected individuals, and the imposition of integrity obligations and agency oversight, damage to our reputation, and loss of goodwill, any of which could harm our operations, financial performance, and business. Evolving and changing definitions of personal data and personal information, within the European Union, the U.S., and elsewhere, may limit or inhibit our ability to operate or expand our business, including limiting strategic partnerships that may involve the sharing of data. Moreover, if the relevant laws and regulations change, or are interpreted and applied in a manner that is inconsistent with our data practices or the operation of our products, or if we expand into new regions and are required to comply with new requirements, we may need to expend resources in order to change our business operations, data practices, or the manner in which our products operate. Even the perception of privacy concerns, whether or not valid, may harm our reputation and inhibit adoption of our products.

We are subject to risks associated with our non-U.S. operations.

The FCPA prohibits companies and their intermediaries from making improper payments to foreign officials for the purpose of obtaining or retaining business. Other anti-corruption or anti-bribery laws, such as the UKBA, prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business in foreign countries. The FCPA also imposes accounting standards and requirements on publicly traded U.S. corporations and their foreign affiliates, which are intended to prevent the diversion of corporate funds to the payment of bribes and other improper payments, and to prevent the establishment of slush funds from which such improper payments can be made. Because of the predominance of government-sponsored healthcare systems around the world, many of our customer relationships outside of the U.S. are with governmental entities and are therefore subject to such anti-bribery laws. Our internal control policies and procedures may not always protect us from reckless or criminal acts committed by our employees or agents. Violations of these laws, or allegations of such violations, could disrupt our operations, involve significant management distraction, and result in a material adverse effect on our business, results of operations, and financial condition. We also could suffer severe penalties, including criminal and civil penalties, disgorgement, and other remedial measures, including further changes or enhancements to our procedures, policies, and controls, as well as potential personnel changes and disciplinary actions.

Furthermore, we are subject to anti-boycott laws, anti-money laundering laws, and the export controls and economic embargo rules and regulations of the U.S., including, but not limited to, the Export Administration Regulations and trade sanctions against embargoed countries, which are administered by the Office of Foreign Assets Control within the Department of the Treasury, as well as the laws and regulations administered by the Department of Commerce. These regulations limit our ability to market, sell, distribute, or otherwise transfer our products or technology to prohibited countries or persons. A determination that we have failed to comply, whether knowingly or inadvertently, may result in substantial penalties, including fines and enforcement actions and civil and/or criminal sanctions, the disgorgement of profits, and the imposition of a court-appointed monitor, as well as the denial of export privileges, and may have an adverse effect on our reputation.

Even if our products are approved by regulatory authorities or CE marked, if we, our contractors, or our suppliers fail to comply with ongoing FDA or other foreign regulatory requirements, or if we experience unanticipated problems with our products, these products could be subject to restrictions or withdrawal from the market.

For any product for which we obtain regulatory clearance or approval, or a CE Certificate of Conformity, the manufacturing processes, reporting requirements, post-approval clinical data, and promotional activities for such product will be subject to continued regulatory review, oversight and periodic inspections by the FDA, our Notified Body and other domestic and foreign regulatory bodies. In particular, we and our suppliers are required to comply with FDA's Quality System Regulations ("QSR") and International Standards Organization ("ISO") regulations for the manufacture of our products and other regulations which cover the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage, and shipping of any product for which we obtain regulatory clearance or approval, or a CE Certificate of Conformity.

The failure by us or one of our suppliers to comply with applicable statutes and regulations, or the failure to timely and adequately respond to any adverse inspectional observations or product safety issues, could result in, among other things, any of the following enforcement actions:

- untitled letters, warning letters, fines, injunctions, consent, and civil penalties;
- unanticipated expenditures to address or defend such actions;
- customer notifications for repair, replacement, refunds;
- recall, detention, or seizure of our products;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying our requests for 510(k) clearance or premarket approval and conformity assessments of new products or modified products;
- limitations on the intended uses for which the product may be marketed;
- operating restrictions;
- withdrawing 510(k) clearances or PMA approvals that have already been granted;
- suspension, variation or withdrawal of CE Certificates of Conformity;
- refusal to grant export approval for our products; and

- criminal prosecution.

In addition, we are required to conduct costly post-market testing and surveillance to monitor the safety or effectiveness of our products, and we must comply with medical device reporting requirements, including the reporting of adverse events and malfunctions related to our products. Later discovery of previously unknown problems with our products, including unanticipated adverse events or adverse events of unanticipated severity or frequency, manufacturing problems, or failure to comply with regulatory requirements such as QSR, may result in changes to labeling, restrictions on such products or manufacturing processes, withdrawal of the products from the market, voluntary or mandatory recalls, a requirement to repair, replace, or refund the cost of any medical device we manufacture or distribute, fines, suspension, variation, or withdrawal of regulatory approvals or CE Certificates of Conformity, product seizures, injunctions, or the imposition of civil, administrative, or criminal penalties which would adversely affect our business, operating results, and prospects.

If the FDA determines that our promotional materials, labeling, training or other marketing or educational activities constitute promotion of an unapproved use, it could request that we cease or modify our training or promotional materials or subject us to regulatory enforcement actions. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our training or other promotional materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false or fraudulent claims for payment of government funds. Any of these actions would harm our reputation and cause our product sales and profitability to suffer and may prevent us from generating revenue.

Our employees, independent contractors, consultants, manufacturers, and third-party distributors may engage in misconduct or other improper activities, relating to regulatory standards and requirements.

We are exposed to the risk that our employees, independent contractors, consultants, manufacturers, and third-party distributors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct that violates applicable laws and regulations, such as FDA reporting requirements, manufacturing standards, federal, state and foreign healthcare laws and regulations, data privacy laws and laws that require the true, complete and accurate reporting of financial information or data. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs, and other business arrangements. Misconduct by these parties could also involve the improper use of individually identifiable information which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter misconduct, and the precautions we take to detect and prevent this activity 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 have a significant impact on our business, including the imposition of significant civil, criminal, and administrative penalties, including, without limitation, damages, fines, disgorgement of profits, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations.

We may be subject to enforcement action, including fines, penalties or injunctions, if we are determined to be engaging in the off-label promotion of our products.

Our promotional materials and training methods must comply with FDA and other applicable national and foreign laws and regulations, including the prohibition of the promotion of off-label use. Physicians may use our products off-label, as the FDA and equivalent third country authorities do not restrict or regulate a physician’s choice of treatment within the practice of medicine.

We believe that the specific surgical procedures for which our products are marketed fall within the scope of the surgical applications that have been cleared by the FDA and our notified body. However, if the FDA or an equivalent third country authority determines that our promotional materials or training constitutes promotion of an off-label use, it could request that we modify our training or promotional materials, require us to stop promoting our products for those specific procedures until we obtain FDA or third country authority clearance or approval for them, or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fines, and criminal penalties. It is also possible that other federal, state or foreign enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an unapproved use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false or fraudulent claims for payment of government fund. In that event, our reputation could be damaged and adoption of the products would be impaired. Although our policy is to refrain from statements that could be considered off-label promotion of our products, the FDA or another regulatory agency could disagree and conclude that we have engaged in off-label promotion. In addition, the off-label use of our products may increase the risk of injury to patients, and, in turn, the risk of product liability claims. Product liability claims are expensive to defend and could divert our management’s attention, result in substantial damage awards against us and harm our reputation.

We are required to report certain malfunctions, deaths, and serious injuries associated with our products, which can result in voluntary corrective actions or agency enforcement actions.

Under the FDA's medical device reporting, regulations, and equivalent rules of other countries we are required to report to the FDA or a similar authority in such other country, any information that our product may have caused or contributed to a death or serious injury or in which our product malfunctioned and, if the malfunction were to recur, would likely cause or contribute to death or serious injury. In the EEA, we must report serious incidents and field safety corrective actions through the Commission's electronic system on vigilance and post-market surveillance, which reports are transmitted to the competent authority of the Member State in which the incident occurred.

If we fail to report these events to the FDA or applicable authority in another country within the required timeframes, or at all, FDA, or the applicable authority in the other country could take enforcement action against us. Any such adverse event involving our products or repeated product malfunctions may result in voluntary or involuntary 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, could divert managerial and financial resources, impair our ability to manufacture our products in a cost-effective and timely manner, and have an adverse effect on our reputation, results of operations, and financial condition.

Any adverse event involving our products, whether in the U.S. or abroad could result in future voluntary corrective actions, such as recalls, including corrections, or customer notifications, or agency action, such as inspection or enforcement actions. If malfunctions do occur, we may be unable to correct the malfunctions adequately or prevent further malfunctions, in which case we may need to cease manufacture and distribution of the affected products, initiate voluntary recalls, and redesign the products. Regulatory authorities may also take actions against us, such as ordering recalls, imposing fines, or seizing the affected products. Any corrective action, whether voluntary or involuntary, will require the dedication of our time and capital, distract management from operating our business, and may harm our reputation and financial results.

A recall of our products, either voluntarily or at the direction of the FDA or another governmental authority, including foreign governmental authorities, or the discovery of serious safety issues or malfunctions with our products, can result in voluntary corrective actions or agency enforcement actions, which could have a significant adverse impact on us.

The FDA and similar foreign governmental authorities have the authority to require the recall of commercialized products in the event of material deficiencies or defects in design or manufacture or in the event that a product poses an unacceptable risk to health. Manufacturers may, under their own initiative, recall a product if any material deficiency in a device is found.

In the case of the FDA, the authority to require a recall must be based on an FDA finding that there is an unreasonable risk of substantial public harm. In addition, foreign governmental bodies have the authority to require the recall of our products in the event of material deficiencies or defects in design or manufacture. A government-mandated or voluntary recall by us or one of our third-party distributors could occur as a result of an unacceptable risk to health, component failures, manufacturing errors, design or labeling defects, or other deficiencies and issues. Recalls of any of our products would divert managerial and financial resources and have an adverse effect on our reputation, results of operations, and financial condition, which could impair our ability to produce our products in a cost-effective and timely manner in order to meet our customers' demands. We may also be required to bear other costs or take other actions that may have a negative impact on our future sales and our ability to generate profits.

The FDA requires that certain classifications of recalls be reported to FDA within 10 working days after the recall is initiated. Companies are required to maintain certain records of recalls, even if they are not reportable to the FDA. We have in the past, and may in the future, initiate voluntary recalls involving our products in the future that we determine do not require notification of the FDA. If the FDA disagrees with our determinations, they could require us to report those actions as recalls. A future recall announcement could harm our reputation with customers and negatively affect our sales. In addition, the FDA could take enforcement action for failing to report the recalls when they were conducted. Equivalent procedures and penalties have been established in other countries including EU Member States.

Modifications to our products may require new 510(k) clearances or premarket approvals and new conformity assessment by our Notified Body, or may require us to cease marketing or recall the modified products until clearances, approvals, or CE Certificates of Conformity are obtained.

Any modification to a 510(k)-cleared device that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, design, or manufacture, requires a new 510(k) clearance or, possibly, a PMA. The FDA requires every manufacturer to make and document this determination in the first instance. A manufacturer may determine that a modification could not significantly affect safety or effectiveness and does not represent a major change in its intended use, so that no new 510(k) clearance is necessary. FDA may review any manufacturer's decision and may not agree with our decisions regarding whether new clearances or approvals are necessary. The FDA may also on its own initiative determine that a new clearance or approval is required.

We have modified some of our 510(k) cleared products and have determined based on our review of the applicable FDA guidance that in certain instances new 510(k) clearances or PMAs are not required. If the FDA disagrees with our determination and requires us to submit new 510(k) clearances or PMAs for modifications to our previously cleared products for which we have concluded that new clearances or approvals are unnecessary, we may be required to cease marketing or to recall the modified product until we obtain clearance or approval. In these circumstances, we may be subject to significant enforcement actions, regulatory fines, or penalties, which could require us to redesign our products and harm our operating results.

If a manufacturer determines that a modification to an FDA-cleared device could significantly affect its safety or effectiveness, or would constitute a major change in its intended use, then the manufacturer must file for a new 510(k) clearance or possibly a premarket approval application. Where we determine that modifications to our products require a new 510(k) clearance or premarket approval application, we may not be able to obtain those additional clearances or approvals for the modifications or additional indications in a timely manner, or at all. FDA's ongoing review of the 510(k) program may make it more difficult for us to make modifications to our previously cleared products, either by imposing more strict requirements on when a new 510(k) for a modification to a previously cleared product must be submitted, or applying more onerous review criteria to such submissions.

In the EEA, we must inform the Notified Body that carried out the conformity assessment of the medical devices we market or sell in the EEA of any planned substantial changes to our quality system, manufacturing process, or changes to our devices which could affect compliance with the essential requirements or the devices' intended use. The Notified Body will then assess the changes and verify whether they affect the products' conformity with Essential Requirements and related applicable laws. There can be no assurances that the assessment will be favorable and that the Notified Body will attest to our compliance with the essential requirements, which will prevent us from selling our products in the EEA. Moreover, any substantial changes that take place in the coming years may impact the continuing effectiveness of our CE Certificates of Conformity that were issued on the basis of the Medical Device Directive.

There is no guarantee that the FDA will grant 510(k) clearance or premarket approval of our future products or that our Notified Body will issue the required CE Certificate of Conformity, and failure to obtain necessary clearances or approvals for our future products would adversely affect our business prospects.

We are in the process of developing our regulatory strategies for obtaining clearance or approval for future products. Some of them may require 510(k) clearance by the FDA or a new CE Certificate of Conformity. Other future products may require premarket approval. In addition, some of our new products may require clinical trials or significant clinical evidence to support regulatory approval and we may not successfully complete these clinical trials. Obtaining regulatory clearances or approvals and CE Certificates of Conformity can be a time-consuming process, and delays in obtaining required future regulatory clearances or approvals, and CE Certificates of Conformity would adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would adversely affect our business prospects. The FDA may not approve or clear these products or our Notified Body may not issue CE Certificate of Conformity for the indications that are necessary or desirable for successful commercialization. Indeed, the FDA may refuse our requests for 510(k) clearance or premarket approval of new products, new intended uses, or modifications to existing products and our Notified Body may refuse to issue new CE Certificates of Conformity. Failure to receive clearance, approval, or Certificates of Conformity for our new products would have an adverse effect on our ability to expand our business.

We may fail to obtain or maintain foreign regulatory approvals to market our products in other countries.

We currently market our products internationally and intend to expand our international marketing. International jurisdictions require separate regulatory approvals and compliance with numerous and varying regulatory requirements. For example, we intend to continue to seek domestic and international regulatory clearance to market our primary products Asia, the Middle East and other key markets. The approval procedures vary among countries and may involve requirements for substantial additional testing, and the time required to obtain approval may differ from country to country and from that required to obtain FDA clearance or approval or to obtain CE Certificates of Conformity.

Clearance or approval by the FDA or obtaining a CE Certificate of Conformity does not ensure approval or certification by regulatory authorities in other countries or jurisdictions, and approval or certification by one foreign regulatory authority does not ensure approval or certification by regulatory authorities in other foreign countries or by the FDA. The foreign regulatory approval or certification process may include all of the risks associated with obtaining FDA clearance or approval, or a CE Certificate of Conformity for a medical device in the EEA, in addition to other risks. In addition, the time required to obtain foreign approval may differ from that required to obtain FDA clearance or approval, or a CE Certificate of Conformity in the EEA, and we may not obtain foreign regulatory approvals on a timely basis, if at all. We may not be able to file for regulatory approvals or certifications and may not receive necessary approvals to commercialize our products in any market. If we fail to receive necessary approvals or certifications to commercialize our products in foreign jurisdictions on a timely basis, or at all, our business, results of operations, and financial condition could be adversely affected.

Clinical trials necessary to support a De Novo 510(k) or PMA application or a conformity assessment procedure will be expensive and may require the enrollment of large numbers of patients, and suitable patients may be difficult to identify and recruit. Delays or failures in our clinical trials will prevent us from commercializing any modified or new products, or new indications for use for existing products, and will adversely affect our business, operating results and prospects.

Initiating and completing clinical trials necessary to support a De Novo 510(k) or PMA application for our possible future products or to support a conformity assessment procedure for a new CE Certificate of Conformity would be time consuming and expensive and the outcome uncertain. Moreover, the results of early clinical trials are not necessarily predictive of future results, and any product, or new indication for use, we advance into clinical trials may not have favorable results in later clinical trials.

Conducting successful clinical studies may require the enrollment of large numbers of patients, and suitable patients may be difficult to identify and recruit. Patient enrollment in clinical trials and completion of patient participation and follow-up depends on many factors, including the size of the patient population, the nature of the trial protocol, the attractiveness of, or the discomforts and risks associated with, the treatments received by enrolled subjects, the availability of appropriate clinical trial investigators and support staff, the proximity of patients to clinical sites, and the ability to comply with the inclusion and exclusion criteria for participation in the clinical trial and patient compliance. Development of sufficient and appropriate clinical protocols to demonstrate safety and effectiveness are required and we may not adequately develop such protocols to support clearance and approval. Further, the FDA or our Notified Body may require us to submit data on a greater number of patients than we originally anticipated and/or for a longer follow-up period or change the data collection requirements or data analysis applicable to our clinical trials. Delays in patient enrollment or failure of patients to continue to participate in a clinical trial may cause an increase in costs and delays in the approval and attempted commercialization of our products or result in the failure of the clinical trial. For example, the COVID-19 pandemic caused substantial delays in site initiation and patient enrollment in our SILVIA trial designed to assess the safety and efficacy of our Bedrock technique. In addition, despite considerable time and expense invested in our clinical trials, the FDA or our Notified Body may not consider our data adequate to demonstrate safety and effectiveness. Such increased costs and delays or failures could adversely affect our business, operating results and prospects.

Our facility and our clinical investigational sites operate under procedures that govern the conduct and management of FDA-regulated clinical studies under 21 CFR Parts 50 and 812, and Good Clinical Practices. The FDA may conduct Bioresearch Monitoring inspections of us and/or our clinical sites to assess compliance with 21 CFR Parts 50 and 812, our procedures, and the clinical protocol. If the FDA were to find that we or our clinical investigators are not operating in compliance with applicable regulations, we could be subject to the above FDA enforcement action, as well as refusal to accept all or part of our data in support of our 510(k) or PMA, or we may need to conduct additional studies.

The results of our clinical trials may not support our product candidate claims or may result in the occurrence of adverse events.

Even if our clinical trials are completed as planned, or on a delayed basis, we cannot be certain that their results will support our product candidate claims or that the FDA, foreign authorities, or our Notified Body will agree with our conclusions regarding them. Success in pre-clinical studies and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the later trials will replicate the results of prior trials and pre-clinical studies. The clinical trial process may fail to demonstrate that our product candidates are safe and effective for the proposed indicated uses, which could cause us to abandon a product candidate and may delay development of others. Any delay or termination of our clinical trials will delay the filing of our product submissions and, ultimately, our ability to commercialize our product candidates and generate revenue. It is also possible that patients enrolled in clinical trials will experience adverse events that are not currently part of the product candidate’s profile.

U.S. legislative or FDA or foreign regulatory reforms may make it more difficult and costly for us to obtain regulatory clearances or approvals, or CE Certificates of Conformity for our product candidates and to manufacture, market, and distribute our products after approval is obtained.

From time to time, Congress introduces legislation that could significantly change the statutory provisions governing the regulatory approval, manufacture, and marketing of regulated products or the reimbursement thereof. In addition, FDA regulations and guidance are often revised or reinterpreted by the FDA in ways that may significantly affect our business and our products. Moreover, the new Medical Device Regulation entered into application on May 26, 2021. Any new regulations or revisions or reinterpretations of existing regulations may impose additional costs or lengthen review times of future products. It is impossible to predict whether legislative changes will be enacted or FDA regulations, guidance, or interpretations changed, and what the impact of such changes, if any, may be.

Leadership, personnel and structural changes within the FDA as well as recent federal election outcomes could result in significant legislative and regulatory reforms impacting the FDA's regulation of our products. Any change in the laws or regulations that govern the clearance and approval processes relating to our current and future products could make it more difficult and costly to obtain clearance or approval for new products, or to produce, market and distribute existing products. Significant delays in receiving clearance or approval, or the failure to receive clearance or approval for our new products would have an adverse effect on our ability to expand our business.

Another example can be found in the EEA. The Medical Devices Regulation ("MDR") entered into application on May 26, 2021. MDR introduced substantial changes to the obligations with which medical device manufacturers must comply in the EEA. Examples of the changes which will be introduced by these regulations include the following:

- additional scrutiny during the conformity assessment procedure for high risk medical devices;
- strengthening of the clinical data requirements related to medical devices;
- strengthening of the designation and monitoring processes governing notified bodies;
- the obligation for manufacturers and authorized representative to have a person responsible for regulatory compliance continuously at their disposal;
- authorized representatives held legally responsible and liable for defective products placed on the EU market;
- increased traceability of medical devices following the introduction of a Unique Device Identification ("UDI"), system;
- new rules governing the reprocessing of medical devices; and
- increased transparency with the establishment of European database on medical devices ("EUDAMED") III as information from several databases concerning economic operators, CE Certificates of Conformity, conformity assessment, clinical investigations, the UDI system, adverse event reporting and market surveillance would be available to the public.

The Medical Device Regulation also substantially impacts clinical investigations of medical devices. Among other things, it imposes specific obligations concerning incapacitated subjects, minors, pregnant or breastfeeding women and clinical investigations in emergency situations. In addition to detailed provisions concerning the authorization and conduct of clinical investigations, the Regulation imposes on non-EU sponsors a responsibility to appoint a legal representative established in the EU and an obligation on EU Member States to ensure that systems for compensation for any damage suffered by a subject resulting from participation in a clinical investigation conducted on their territory are in place and places on sponsors and investigators the obligation to ensure they make use of these systems.

Transition from the regulation of our products under the Medical Device Directive, and implementing legislation in each EU Member State, to regulation under the Medical Devices Regulation has required and will continue to require a substantial transition effort by us. In addition, detail as to how certain aspects of the Medical Devices Regulation will be applied remains unclear. Failure to update our quality system and regulatory documentation could delay our transition to compliance with the Medical Devices Regulation and delay or prevent us from obtaining new CE Certificates of Conformity under the Regulation. Transition from compliance with the Medical Device Directive to the Medical Devices Regulation could result in disruption to our business in the EEA which could adversely affect our business, results of operation and financial condition.

In addition, any changes to the membership of the European Union, such as the departure of the United Kingdom from the EU, may impact the regulatory requirements for the impacted countries and impair our business operations and our ability to market products in such countries. For example, pursuant to guidance issued by the UK Government as a result of the UK formally withdrawing from the European Union, the Medicines and Healthcare products Regulatory Agency ("MHRA") became the standalone medicines and medical devices regulator for the UK as of January 1, 2021. A new mark referred to as "UKCA" (UK Conformity Assessed) has also been introduced and will replace the CE conformity mark. Although CE conformity marketing and certificates issued by Notified Bodies will continue to be recognized in the UK through June 2023, all medical devices must be registered with the MHRA as of January 1, 2021. Complying with this new regulatory framework will require us to invest in additional resources and could be expensive, time-consuming and disruptive to our existing operations in the UK.

We may incur product liability losses, and insurance coverage may be inadequate or unavailable to cover these losses.

Our business exposes us to potential product liability claims that are inherent in the testing, design, manufacture, and sale of surgical devices. Sacroiliac joint and other orthopedic spine surgeries involve significant risk of serious complications, including bleeding, nerve injury, paralysis, and even death. Surgeons or non-surgeon physicians may misuse or ineffectively use our products, which may result in unsatisfactory patient outcomes or patient injury. In addition, if longer-term patient results and experience indicate that our products or any component of a product cause tissue damage, motor impairment, or other adverse effects, we could be subject to significant liability. We could become the subject of product liability lawsuits alleging that component failures, manufacturing flaws, design defects, or inadequate disclosure of product-related risks or product-related information resulted in an unsafe condition or injury to patients. Product liability lawsuits and claims, safety alerts, or product recalls, regardless of their ultimate outcome, could have a material adverse effect on our business and reputation, our ability to attract and retain customers and our results of operations or financial condition.

Although we maintain third-party product liability insurance coverage, it is possible that claims against us may exceed the coverage limits of our insurance policies or cause us to record a self-insured loss. Even if any product liability loss is covered by an insurance policy, these policies typically have substantial retentions or deductibles that we are responsible for. Product liability claims in excess of applicable insurance coverage could have a material adverse effect on our business, results of operations, and financial condition.

In addition, any product liability claim brought against us, with or without merit, could result in an increase of our product liability insurance rates. Insurance coverage varies in cost and can be difficult to obtain, and we cannot guarantee that we will be able to obtain insurance coverage in the future on terms acceptable to us or at all.

We are subject to environmental laws and regulations that can impose significant costs and expose us to potential financial liabilities.

The manufacture of certain of our products, including our implants and products, and the handling of materials used in the product testing process involve the use of biological, hazardous and/or radioactive materials and wastes. Our business and facilities and those of our suppliers are subject to foreign, federal, state, and local laws and regulations relating to the protection of human health and the environment, including those governing the use, manufacture, storage, handling, and disposal of, and exposure to, such materials and wastes. We own and operate certain x-ray equipment at our facilities which requires adoption of a radiation safety plan. Our failure to follow such safety plan or otherwise use this equipment properly could be hazardous to our employees and expose us to liability as the employer. In addition, under some environmental laws and regulations, we could be held responsible for costs relating to any contamination at our past or present facilities and at third-party waste disposal sites even if such contamination was not caused by us. A failure to comply with current or future environmental laws and regulations could result in severe fines or penalties. Any such expenses or liability could have a significant negative impact on our business, results of operations, and financial condition.

Certain of our products are derived from human tissue and are or could be subject to additional regulations and requirements.

Our iFuse Bone product is derived from human bone tissue, and as a result is subject to FDA and certain state regulations regarding human cells, tissues and cellular or tissue-based products, or HCT/Ps. To date, iFuse Bone is our only HCT/P product, and as a product regulated under Section 361 of the Public Health Service Act, we have not been required to file a 510(k) with respect to iFuse Bone. However, the FDA could require us to obtain a 510(k) clearance for future tissue products not regulated as 361 HCT/Ps. The process of obtaining a 510(k) clearance could take time and consume resources, and failing to receive such a clearance would render us unable to market and sell such products, which could have a material and adverse effect on our business.

Risks Related to Our Intellectual Property

If we or our licensors fail to adequately protect or enforce our intellectual property rights or secure rights to patents of others, the value of our intellectual property rights would diminish and our ability to successfully commercialize our products may be impaired.

We rely primarily on patent, copyright, trademark and trade secret laws, as well as confidentiality and nondisclosure agreements and other methods, to protect our proprietary technologies and know-how. As of December 31, 2022, we owned 51 issued U.S. patents and had 32 pending U.S. patent applications, and we owned 16 issued foreign patents and had 18 pending foreign patent applications. We have focused the majority of our foreign patent efforts in China, Europe, and Japan. Our current U.S. patents on iFuse, including the triangular shape, expire in November 2024. Competitors may market similar triangular shaped devices upon the expiration of the patents in late 2024. Our current U.S. patents on iFuse-3D, including the fenestrated design, expire in September 2035. Our foreign patents will expire between August 2025 and September 2035.

As of December 31, 2022, we have 19 registered trademarks in the U.S. and have filed for four more. We have sought protection for at least two of these trademarks in 60 countries including the 27 European member countries of the Madrid Protocol.

We have applied for patent protection relating to certain existing and proposed products and processes. While we generally apply for patents in those countries where we intend to make, have made, use, or sell our products, we may not accurately predict all of the countries where patent protection will ultimately be desirable. If we fail to timely file a patent application in any such country, we may be precluded from doing so at a later date. Furthermore, we cannot assure investors that any of our patent applications will be approved. The rights granted to us under our patents, including prospective rights sought in our pending patent applications, may not be meaningful or provide us with any commercial advantage. In addition, those rights could be opposed, contested, or circumvented by our competitors or be declared invalid or unenforceable in judicial or administrative proceedings. The failure of our patents to adequately protect our technology might make it easier for our competitors to offer the same or similar products or technologies. Competitors may be able to design around our patents or develop products that provide outcomes that are comparable to ours without infringing on our intellectual property rights. Due to differences between foreign and U.S. patent laws, our patented intellectual property rights may not receive the same degree of protection in foreign countries as they would in the U.S. Even if patents are granted outside the U.S., effective enforcement in those countries may not be available. Since most of our issued patents are for the U.S. only, we lack a corresponding scope of patent protection in other countries. In countries where we do not have significant patent protection, we may not be able to stop a competitor from marketing products in such countries that are the same as or similar to our products.

We rely on our trademarks, trade names and brand names to distinguish our products from the products of our competitors and have registered or applied to register many of these trademarks. We cannot assure investors that our trademark applications will be approved. Third parties may also oppose our trademark applications, or otherwise challenge our use of the trademarks. In the event that our trademarks are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition, and could require us to devote resources to advertising and marketing new brands. Further, we cannot assure investors that competitors will not infringe upon our trademarks, or that we will have adequate resources to enforce our trademarks.

We also rely on trade secrets, know-how, and technology, which are not protected by patents, to maintain our competitive position. We try to protect this information by entering into confidentiality and intellectual property assignment agreements with parties that develop intellectual property for us and/or have access to it, such as our officers, employees, consultants, and advisors. However, in the event of unauthorized use or disclosure or other breaches of such agreements, we may not be provided with meaningful protection for our trade secrets or other proprietary information. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our commercial partners, collaborators, employees, and consultants use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions. If any of our trade secrets, know-how or other technologies not protected by a patent were to be disclosed to or independently developed by a competitor, our business, financial condition, and results of operations could be materially adversely affected.

In the future, we may enter into licensing agreements to maintain our competitive position. If we enter into in-bound intellectual property license agreements, we may not be able to fully protect the licensed intellectual property rights or maintain those licenses. Future licensors could retain the right to prosecute and defend the intellectual property rights licensed to us, in which case we would depend on the ability of our licensors to obtain, maintain and enforce intellectual property protection for the licensed intellectual property. These licensors may determine not to pursue litigation against other companies or may pursue such litigation less aggressively than we would. Further, entering into such license agreements could impose various diligence, commercialization, royalty, or other obligations on us. Future licensors may allege that we have breached our license agreement with them, and accordingly seek damages or to terminate our license, which could adversely affect our competitive business position and harm our business prospects.

If a competitor infringes upon one of our patents, trademarks, or other intellectual property rights, enforcing those patents, trademarks, and other rights may be difficult and time consuming. Even if successful, litigation to defend our patents and trademarks against challenges or to enforce our intellectual property rights could be expensive and time consuming and could divert management's attention from managing our business. Moreover, we may not have sufficient resources to defend our patents or trademarks against challenges or to enforce our intellectual property rights. In addition, if third parties infringe any intellectual property that is not material to the products that we make, have made, use, or sell, it may be impractical for us to enforce this intellectual property against those third parties.

We may be subject to damages resulting from claims that we, our employees, or our third-party distributors have wrongfully used or disclosed alleged trade secrets of our competitors or are in breach of non-competition or non-solicitation agreements with our competitors.

Many of our employees were previously employed at other medical device companies, including our competitors or potential competitors, in some cases until recently. Some of our third-party distributors sell, or in the past have sold, products of our competitors. We may be subject to claims that we, our employees, or our third-party distributors have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of these former employers or competitors. In addition, we have been and may in the future be subject to claims that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement. Even if we are successful in defending against these claims, litigation could result in substantial costs, divert the attention of management from our core business and harm our reputation. If our defense to those claims fails, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. There can be no assurance that this type of litigation will not occur, and any future litigation or the threat thereof may adversely affect our ability to hire additional direct sales representatives. A loss of key personnel or their work product could hamper or prevent our ability to commercialize product candidates, which could have an adverse effect on our business, results of operations, and financial condition.

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

Our commercial success will depend in part on not infringing the patents or violating the other proprietary rights of third parties. Significant litigation regarding patent rights exists in our industry. Our competitors in both the U.S. and abroad, many of which have substantially greater resources and have made substantial investments in competing technologies, may have applied for or obtained or may in the future apply for and obtain, patents that will prevent, limit, or otherwise interfere with our ability to make and sell our products. We have conducted a limited review of patents issued to third parties. The large number of patents, the rapid rate of new patent issuances, the complexities of the technology involved, and the uncertainty of litigation increase the risk of management's attention being diverted to patent litigation. Any litigation or claim against us, even those without merit, may cause us to incur substantial costs, and could place a significant strain on our financial resources, divert the attention of management from our core business, and harm our reputation. Further, as the number of participants in the medical device industry grows, the possibility of intellectual property infringement claims against us increases. If we are found to infringe the intellectual property rights of third parties, we could be required to pay substantial damages, including treble, or triple, damages if an infringement is found to be willful, and/or royalties and could be prevented from selling our products unless we obtain a license or are able to redesign our products to avoid infringement. Any such license may not be available on reasonable terms, if at all, and there can be no assurance that we would be able to redesign our products in a way that would not infringe the intellectual property rights of others. If we fail to obtain any required licenses or make any necessary changes to our products or technologies, we may have to withdraw existing products from the market or may be unable to commercialize one or more of our products, all of which could have a material adverse effect on our business, results of operations, and financial condition. If passed into law, patent reform legislation currently pending in the U.S. Congress could significantly change the risks associated with bringing or defending a patent infringement lawsuit.

In addition, we generally indemnify our customers and third-party distributors with respect to infringement by our products of the proprietary rights of third parties. Third parties may assert infringement claims against our customers or third-party distributors. These claims may require us to initiate or defend protracted and costly litigation on behalf of our customers or third-party distributors, regardless of the merits of these claims. If any of these claims succeed, we may be forced to pay damages on behalf of our customers or third-party distributors or may be required to obtain licenses to intellectual property owned by such third parties. If we cannot obtain all necessary licenses on commercially reasonable terms, our customers and third-party distributors may be forced to stop using or selling our products.

Risks Related to Ownership of Our Common Stock

The price of our common stock may be volatile, and the value of an investment in our common stock could decline.

Medical device stocks have historically experienced volatility, and the trading price of our common stock may fluctuate substantially. These fluctuations could cause our stockholders to lose all or part of their investment in our common stock. Factors that could cause fluctuations in the trading price of our common stock include the following:

- changes in interest rates, investor risk appetite and other macroeconomic factors impacting the market for securities issued by medical device companies;
- the risk of inflation, interest rate increases and other macroeconomic factors impacting patients' economic ability and likelihood of undergoing elective procedures, whether real or as perceived by investors;
- actual or anticipated changes or fluctuations in our results of operations;
- the impact of the COVID-19 pandemic on our business;
- results of our clinical trials and that of our competitors' products;
- regulatory actions with respect to our products or our competitor's products;
- announcements of new offerings, products, services or technologies, commercial relationships, acquisitions, or other events by us or our competitors;
- price and volume fluctuations in the overall stock market from time to time;
- significant volatility in the market price and trading volume of healthcare companies, in general, and of companies in the medical device industry in particular;
- fluctuations in the trading volume of our shares or the size of our public float;
- negative publicity;
- whether our results of operations meet the expectations of securities analysts or investors or those expectations change;
- litigation involving us, our industry, or both;
- regulatory developments in the U.S., foreign countries, or both;
- lock-up releases and sales of large blocks of our common stock;
- additions or departures of key employees or scientific personnel; and
- general economic conditions and trends.

In addition, if the market for healthcare stocks or the stock market, in general, experience a further loss of investor confidence, the trading price of our common stock could decline for reasons unrelated to our business, results of operations, or financial condition. The trading price of our common stock might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. If our stock price is volatile, we may become the target of securities litigation. Securities litigation could result in substantial costs and divert our management's attention and resources from our business. This could have a material adverse effect on our business, results of operations, and financial condition.

Our sales volumes and our operating results may fluctuate over the course of the year, which could affect the price of our common stock.

We have experienced and continue to experience meaningful variability in our sales and gross profit from quarter to quarter, as well as within each quarter. Our sales and results of operations will be affected by numerous factors, including, among other things:

- payor coverage and reimbursement;
- the number of products sold in the quarter and our ability to drive increased sales of our products;
- our ability to establish and maintain an effective and dedicated sales force;

- pricing pressure applicable to our products, including adverse third-party coverage and reimbursement outcomes;
- the impact of the COVID-19 pandemic or other epidemic disease outbreak on our business;
- results of clinical research and trials on our existing products and products in development;
- the mix of our products sold because profit margins differ amongst our products;
- timing of new product offerings, acquisitions, licenses or other significant events by us or our competitors;
- the ability of our suppliers to timely provide us with an adequate supply of materials and components;
- the evolving product offerings of our competitors;
- the demand for, and pricing of, our products and the products of our competitors;
- factors that may affect the sale of our products, including seasonality and budgets of our customers;
- domestic and international regulatory clearances or approvals, or CE Certificates of Conformity, and legislative changes affecting the products we may offer or those of our competitors;
- interruption in the manufacturing or distribution of our products;
- the effect of competing technological, industry and market developments;
- our ability to expand the geographic reach of our sales and marketing efforts;
- the costs of maintaining adequate insurance coverage, including product liability insurance;
- the availability and cost of components and materials;
- the number of selling days in the quarter;
- fluctuation in foreign currency exchange rates; and
- impairment and other special charges.

Some of the products we may seek to develop and introduce in the future will require FDA clearance or approval before commercialization in the U.S., and commercialization of such products outside of the U.S. would likely require additional regulatory approvals, or Certificates of Conformity and import licenses. As a result, it will be difficult for us to forecast demand for these products with any degree of certainty. In addition, we will be increasing our operating expenses as we expand our commercial capabilities. Accordingly, we may experience significant, unanticipated losses. If our quarterly or annual operating results fall below the expectations of investors or securities analysts, the price of our common stock could decline substantially. Furthermore, any quarterly or annual fluctuations in our operating results may, in turn, cause the price of our common stock to fluctuate substantially. Quarterly comparisons of our financial results may not always be meaningful and should not be relied upon as an indication of our future performance.

We may be unable to utilize our federal and state net operating loss carryforwards to reduce our income taxes.

As of December 31, 2022, we had net operating loss ("NOL") carryforwards of $298.6 million and $238.7 million available to reduce future taxable income, if any, for U.S. federal income tax and state income tax purposes, respectively. If not utilized, our federal and state NOL carryforwards begin to expire in 2029 and 2022, respectively, subject to the recent California franchise tax law change affecting California state NOLs mentioned below. Portions of these NOL carryforwards could expire unused and be unavailable to offset future income tax liabilities. Under legislation enacted in 2017, as modified by legislation enacted in 2020, unused U.S. federal NOLs generated in tax years beginning after December 31, 2017, will not expire and may be carried forward indefinitely, but the deductibility of such federal NOLs in taxable years beginning after December 31, 2020, is limited to 80% of taxable income. At the state level, there may be periods during which the use of NOLs is suspended or otherwise limited. In addition, under Section 382 of the Code, and corresponding provisions of state law, if a corporation undergoes an "ownership change," which generally occurs if the percentage of the corporation's stock owned by 5% stockholders increases by more than 50% over a three-year period, the corporation's ability to use its pre-change NOL carryforwards and other pre-change tax attributes to offset its post-change income may be limited. We updated our Section 382 ownership change analysis through December 31, 2020. The analysis determined that we have experienced Section 382 ownership changes in 2010 and 2020. A total of $1.4 million of our NOLs and tax credit carryforwards are subject to limitation as a result of the ownership change.

The 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 of 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 $1.0 million. The carryover periods for NOL deductions disallowed by this provision will be extended.

On February 9, 2022, California Senate Bill 133 (SB 133) was signed into law. The new bill lifted the limitation for California NOL and credit utilization disallowed by AB 85. We will continue to monitor the possible California NOLs and credit limitation in future periods.

Our charter documents and Delaware law could discourage takeover attempts and lead to management entrenchment.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could delay or prevent a change in control of our company. These provisions could also make it difficult for stockholders to elect directors that are not nominated by the current members of our board of directors or take other corporate actions, including effecting changes in our management. These provisions include:

- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by a majority vote of our entire board of directors, the chairman of our board of directors, or our chief executive officer, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement for the affirmative vote of holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our amended and restated certificate of incorporation relating to the management of our business or our amended and restated bylaws, which may inhibit the ability of an acquiror to effect such amendments to facilitate an unsolicited takeover attempt; and
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of us.

In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time.

A Delaware corporation may opt out of this provision by express provision in its original certificate of incorporation or by amendment to its certificate of incorporation or bylaws approved by its stockholders. However, we have not opted out of, and do not currently intend to opt out of, this provision.

These and other provisions in our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by our then-current board of directors, including delay or impede a merger, tender offer, or proxy contest involving our company. The existence of these provisions could negatively affect the price of our common stock and limit opportunities for our stockholders to realize value in a corporate transaction.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the U.S. federal district courts are the exclusive forums for substantially all disputes between us and our stockholders, which restricts our stockholders' ability to bring a lawsuit against us or our directors, officers, or employees in jurisdictions other than Delaware and federal district courts.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of a fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, 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 provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for these types of disputes with us or our directors, officers, or other employees.

Our amended and restated certificate of incorporation also provides that the U.S. federal district courts are the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our leased headquarters in Santa Clara, California, comprises approximately 21,848 square feet, and the lease for this space expires in May 2025. Our headquarters houses our research, product development, marketing, finance, education, and administration functions. We also lease research and development and warehouse space in another building in Santa Clara, California under a lease that will expire in October 2026, and office spaces in Gallarate, Italy (lease expires in August 2027), Mannheim, Germany (lease can be terminated on six-months notice), and Knaresborough, United Kingdom (lease expires in December 2025) to accommodate our European sales and marketing team. We believe our facilities are adequate and suitable for our current needs but in the future we may need additional space.

Item 3. Legal Proceedings

We may be subject to legal proceedings and claims in the ordinary course of business. We cannot predict the results of any such disputes, and despite the potential outcomes, the existence thereof may have an adverse material impact on us due to diversion of management time and attention as well as the financial costs related to resolving such disputes.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

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

Market Price of Common Stock

Our common stock is listed on the Nasdaq Global Market under the symbol "SIBN".

Holders of Record

As of February 23, 2023, we had 144 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders, and includes stockholders who are beneficial owners, but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock, and we do not currently intend to pay any cash dividends on our capital stock in the foreseeable future.

Item 6. [Reserved]

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and the related notes to those statements included elsewhere in this Annual Report on Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Annual Report on Form 10-K, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. As a result of many important factors, including those set forth in the "Risk Factors" section of this Annual Report on Form 10-K, our actual results could differ materially from the results described in, or implied, by these forward-looking statements.

Overview

We are a medical device company dedicated to solving musculoskeletal disorders of the sacropelvic anatomy. Leveraging our knowledge of pelvic anatomy and biomechanics, we have pioneered proprietary minimally invasive surgical implant systems to address sacroiliac joint dysfunction as well as address unmet clinical needs in pelvic fixation and management of pelvic fractures.

Our products include a series of patented titanium implants and the instruments used to implant them. Since launching our first generation iFuse in 2009, we have launched three new implants product lines, iFuse-3D in 2017, iFuse-TORQ in 2021 and iFuse Bedrock Granite in 2022. Within the United States, our iFuse, iFuse-3D and iFuse-TORQ have clearances for applications across sacroiliac joint dysfunction and fusion, adult deformity and degeneration, and pelvic trauma.

We market our products primarily with a direct sales force as well as a number of distributors in the U.S., and with a combination of a direct sales force and distributors in other countries. As of December 31, 2022, more than 75,000 procedures have been performed by over 3,000 surgeons in the United States and 38 other countries since we introduced iFuse in 2009.

Impact of COVID-19 Pandemic

The global COVID-19 pandemic presents significant risks to us and has impacted, and continues to impact our business, operations, and financial results and condition, directly and indirectly, including, without limitation, impacts on the health of our management and employees; our manufacturing, distribution, marketing and sales operations; our research and development activities, including clinical activities; and customer and patient behaviors.

Access to many hospitals and other customer sites was impacted by prevalence of COVID-19, which negatively impacts our ability to promote the use of our products with physicians. Additionally, many hospitals and ambulatory surgery centers have in the past suspended and may suspend in the future, many elective procedures, resulting in a reduced volume of procedures using our products. Our customer behavior is impacted by the prevalence of COVID-19 and changes in the infection rates in the locations where our customers reside. Quarantines, shelter-in-place, elective procedure moratoria and similar government orders have also impacted, and may continue to impact, our third-party manufacturers and suppliers, and could in turn adversely impact the availability or cost of materials, which could disrupt our supply chain. Periodic resurgence of the COVID-19 pandemic negatively impacted our revenues at various periods throughout 2021 and 2022 as evidenced by case deferrals attributed to COVID-19.

Throughout the pandemic, we have taken a variety of steps to address the impact of the COVID-19, while attempting to minimize business disruption. We are continuing to monitor the impact of the COVID-19 pandemic on our employees and customers and on the markets in which we operate, and will take further actions that are considered prudent to address the COVID-19 pandemic, while ensuring that we can support our customers and continue to develop our products.

Certain of our third-party suppliers have faced delays, product shortages and rising costs resulting from disruptions in the global supply chain, related to instruments and shop capacity issues impacting lead-time and quantities of implants available. As a result, we are continuing to work closely with our manufacturing partners and suppliers, as well as determining alternative sourcing strategies to enable us to source key components and maintain appropriate inventory levels to meet customer demand.

We cannot currently predict with certainty the full extent to which the COVID-19 pandemic will impact demand for our products in the future, or the impact of the COVID-19 pandemic on our supply chain or other aspects of our business. Accordingly, the COVID-19 pandemic could have a material adverse effect on our results of operations, financial condition and capital resources.

The existence and further duration of the COVID-19 pandemic may also further exacerbate certain risks as described in "Item 1A - Risk Factors."

Factors Affecting Results of Operations and Key Performance Indicators

We monitor certain key performance indicators that we believe provide us and our investors indications of conditions that may affect results of our operations. Our revenue growth rate and commercial progress is impacted by, among other things, our key performance indicators, including our ability to expand access to solutions, increase surgeon penetration, launch new products, address human capital needs and gain operational efficiencies.

Expand Access to Solutions

As we expand our portfolio, the experience, caliber, and strong clinician relationships of our sales force will be crucial to drive adoption of our future products and procedures. Since our initial public offering in 2018, we have made significant investments in our commercial infrastructure to build a valuable sales team to expand the market, drive surgeon engagement and deliver revenue growth.

While we will continue to selectively expand our sales force, we are also focused on increasing our sales managers capacity and drive productivity by adding more clinical support specialists and implement hybrid models, including selectively adding distributors for case coverage and consign instrument trays and implants at selective sites of service

As of December 31, 2022, our U.S. sales force consisted of 88 territory sales managers and 73 clinical support specialists directly employed by us and 105 third-party distributors, compared to 85 territory sales managers and 65 clinical support specialists directly employed by us and 59 third-party distributors as of December 31, 2021. As of December 31, 2022, our international sales force consisted of 18 sales representatives directly employed by us and 30 third-party distributors, compared to 20 sales representatives directly employed by us and 32 third-party distributors as of December 31, 2021.

With the steady increase in the numbers of minimally invasive procedures, including sacroiliac joint fusion procedures, being performed at ASCs, we continue to actively engage the ASCs to educate them on our clinical evidence, exclusive commercial payor coverage and focus on driving improved education and pathways between pain physicians and surgeons. As of December 31, 2022, over 20 percent of procedures for sacroiliac joint dysfunction using our products were performed at ASCs.

We have been making targeted investments in digital marketing initiatives to drive patient awareness, to empower and educate patients as they manage their sacroiliac joint dysfunction and associated pain. These marketing programs are targeted at patients in chronic, severe sacroiliac joint pain who have been in conservative care for an extended period of time. We are focused on connecting patients with surgeons in their area who perform minimally invasive SI-Joint procedures through our Find-a-Doctor website tool. Through a variety of channels, including search, social and display, we have deployed a number of campaigns and are continually optimizing to maximize patient awareness and to connect patients with surgeons. Our data-driven approach enables us to focus our investment on the most cost-effective programs.

Surgeon Engagement

Engaging and educating surgeons and other healthcare professionals about the clinical merits and patient benefits of our solutions will be important to grow surgeon adoption. Our medical affairs team works closely with our sales team to increase surgeon engagement and activation. Surgeon activity includes both the number of surgeons performing our procedures as well as the number of procedures performed per surgeon. In addition to training new surgeons, we have several initiatives to re-engage inactive surgeons.

We utilize a combination of hands-on cadaveric and dry-lab training, as well as SI-BONE SImulator - a portable, radiation-free, haptics and computer-based simulator for training purposes, and optimize our programs to improve adoption rate, time to first case and ultimately surgeon productivity.

As of December 31, 2022 and 2021, in the U.S. more than 2,200 surgeons and 1,800 surgeons, respectively, have been trained on iFuse and have treated at least one patient. Outside the U.S., as of December 31, 2022 and 2021, more than 800 surgeons and 700 surgeons, respectively, have been trained on iFuse and have treated at least one patient. We will continue to pursue approximately 5,300 target surgeons in the U.S., as well as international surgeons to train and retrain in the future. Since launching our academic training program in August 2018, we have trained residents and fellows in over 200 academic programs in the U.S., resulting in the training of approximately 1200 surgical residents and fellows.

Expand Addressable Markets

Expanding our platform of sacropelvic solutions to address SI joint dysfunction, pelvic fixation and pelvic trauma has been a key tenet of our strategy, and we have made substantial progress on this mission. With iFuse-3D, iFuse-TORQ and iFuse Bedrock Granite, we believe that the value of our innovative, versatile, and complementary product portfolio provides surgeons with a comprehensive set of alternatives, and positions us as the top choice for surgeons for sacropelvic solutions.

In June 2022, we completed enrollment in SILVIA, a two-year prospective international multi center randomized controlled trial of two different methods for pelvic fixation in adult patients undergoing long-construct spinal fusion. We anticipate the results for the primary endpoint in 2024. In September 2022 we enrolled the first of the targeted 120 patients in our SAFFRON study, a prospective randomized controlled trial of surgery using our iFuse-TORQ device vs. non-surgical management in patients with debilitating sacral fragility or insufficiency fractures. We anticipate results to be available in late 2024.

We continue to invest in R&D initiatives to bring new and differentiated solutions to the market that deliver on our vision of improving patient quality of life through differentiated solutions to target segments with a clear unmet clinical need. Robust clinical evidence is central to drive adoption and favorable reimbursement, and we remain focused on continuing to set the industry standard in delivering evidence-based care through best-in-class clinical trials that demonstrate the efficacy, safety, and economic benefit of our solutions. In 2022, we spent $13.6 million on R&D, equating to 13% of our 2022 revenue.

Enhance Employee Experience and Engagement

Our ability to recruit, develop and retain highly skilled talent is a significant determinant of our success. To facilitate talent attraction, retention, and development, we strive to make SI-BONE an inclusive, diverse, and safe workplace with opportunities for our employees to grow and develop in their careers, supported by strong compensation, benefits, and health and wellness programs, as well as by programs that build connections between our employees and the communities in which they live and work.

In addition to ensuring workforce diversity as well as fair and equitable pay to our employees, we remain focused on enhancing employee retention and job satisfaction. To that effect, we have created a feedback framework to monitor and respond to employee sentiment on an ongoing basis. Leveraging the insights from this feedback, we are focused on implementing strategies to enhance productivity and increase employee empowerment to drive quick decision making and prioritization across the organization. Additionally, we offer ongoing learning and leadership training opportunities that support growth and development. In 2022 we conducted a formal management training program and implemented a new career development program which includes a formalized framework that reflects how an employee can advance their career within the company. Through our engagement programs and voluntary and giving activities, we are also focused on building connections between our employees, their families, and our communities to create a more meaningful and fulfilling workplace. We experienced a decrease in voluntary employee attrition during 2022, which we believe was at least in part to due to our actions to improve employee experience.

Gain operational efficiency

To support our growing portfolio of solutions, we continue to evolve our business processes to identify, measure and improve operational efficiency. The information developed will allow us to optimize processes, increase sales force productivity and improve asset utilization.

While we will continue to selectively expand our sales force, we are also focused on increasing our sales managers capacity and drive productivity by adding more clinical support specialists and implement hybrid models, including selectively adding distributors for case coverage and consign instrument trays and implants at selective sites of service. Our average revenue per territory manager has increased to approximately $1.21 million in FY2022, from $1.06 million in FY2021.

We have made significant investments in instrument sets used to perform surgeries. Our goal is to deploy instrument sets to the market where the demand exists to increase our asset turn rate over time and use capital more effectively. Given the macro supply chain disruption, we are working closely with our suppliers to reduce lead time for our implant to ensure we can support our expanding surgeon footprint and over time build the resilience in our supply chain to reduce our cash investment in inventory. Additionally, we are partnering with our suppliers around design for manufacturing, specifically for a newer products, to reduce the overall cost of the implants as we scale, reduce waste and rework. Lastly, we are integrating our demand planning and manufacturing systems, to ensure we leverage actual usage trends as we build surgical capacity to support our growth.

Components of Results of Operations

Revenue

We generate most of our revenue from sales of iFuse triangular titanium implants. Our revenue from sales of implants fluctuate based on volume of cases (procedures performed), discounts, mix of international and U.S. sales, different implant pricing and the number of implants used for a particular patient. Similar to other orthopedic companies, our case volume can vary from quarter to quarter due to a variety of factors including reimbursement, sales force changes, physician activities, seasonality, and the impact of COVID-19. In addition, our revenue is impacted by changes in average selling price as we respond to the competitive landscape and price differences at different medical facilities, such as hospitals and ambulatory surgical centers, or ASCs. Further, revenue results can differ based upon the mix of business between U.S. and international sales and mix of our products either delivered at the point of implantation at the hospital or other medical facilities or delivered through distributors or to hospitals where the products were ordered in advance of the procedure. Our revenue from international sales is impacted by fluctuations in foreign currency exchange rates between the U.S. dollar (our reporting currency) and the local currency.

Our business is affected by seasonal variations. For instance, we have historically experienced lower sales in the summer months and higher sales in the last quarter of the fiscal year as patients have more time in the winter months to have the procedure completed or want to take advantage of their annual insurance coverage limits. However, taken as a whole, seasonality does not have a material impact on our financial results

Starting March 2020, the impact of COVID-19 pandemic on our revenue has varied by period and region based on various factors, including stage of containment, resurgence of variants, success of regional vaccination campaigns, and associated government and hospital actions around elective procedures.

Cost of Goods Sold, Gross Profit, and Gross Margin

We utilize third-party manufacturers for production of our implants and instrument sets. Cost of goods sold consists primarily of costs of the components of implants and instruments, instrument set depreciation, royalties, scrap and inventory obsolescence, as well as distribution-related expenses such as logistics and shipping costs. Our cost of goods sold has historically increased as case levels increase.

Our gross profit and gross margin are affected by factors impacting revenue and cost of goods sold. In addition, our gross margins are typically higher on products we sell directly as compared to products we sell through third-party distributors. As a result, changes in the mix of direct versus distributor sales can directly influence our gross margins.

Operating Expenses

Our operating expenses consist of sales and marketing, research and development, and general and administrative expenses. Personnel costs are the most significant component of operating expenses and consist of salaries, sales commissions and other cash and stock-based compensation related expenses. We intend to make investments to execute our strategic plans and operational initiatives. We anticipate certain operating expenses will continue to increase to support our growth.

Sales and Marketing Expenses

Sales and marketing expenses primarily consist of salaries, stock-based compensation expense, and other compensation related costs, for personnel employed in sales, marketing, medical affairs, reimbursement and professional education departments. In addition, our sales and marketing expenses include commissions and bonuses, generally based on a percentage of sales, as well as certain commission guarantees paid to our senior sales management, direct territory sales managers, clinical support specialists and third-party distributors.

Research and Development Expenses

Our research and development expenses primarily consist of engineering, product development, clinical and regulatory expenses (including clinical study expenses), consulting services, outside prototyping services, outside research activities, materials, depreciation, and other costs associated with development of our products. Research and development expenses also include related personnel compensation and stock-based compensation expense. We expense research and development costs as they are incurred.

Research and development expenses for engineering projects fluctuate with project timing. Based upon our broader set of product development initiatives and the stage of the underlying projects, we expect to continue to make investments in research and development. As such, we anticipate that research and development expenses will continue to increase in the future.

General and Administrative Expenses

General and administrative expenses primarily consist of salaries, stock-based compensation expense, and other costs for finance, accounting, legal, insurance, compliance, and administrative matters.

Interest Income

Interest income is primarily related to our investments of excess cash in money market funds and marketable securities.

Interest Expense

Interest expense is primarily related to borrowings, amortization of debt issuance costs, and accretion of final fees on the Solar and SVB Term Loans. See “Liquidity and Capital Resources - Term Loan” below for a description of these term loans.

Other Income (Expense), Net

Other income (expense), net consists primarily of net foreign exchange gains and losses on foreign transactions.

Results of Operations

We manage and operate as one reportable segment. The table below summarizes our results of operations for the periods presented (percentages are amounts as a percentage of revenue), which we derived from the consolidated financial statements:

	Year ended December 31, 2022		Year ended December 31, 2021	
	Amount	%	Amount	%
	(in thousands, except for percentages)			
Consolidated Statements of Operations Data:				
Revenue	$ 106,409	100 %	$ 90,152	100 %
Cost of goods sold	15,705	15 %	10,428	12 %
Gross profit	90,704	85 %	79,724	88 %
Operating expenses:				
Sales and marketing	107,726	101 %	93,884	104 %
Research and development	13,627	13 %	12,441	14 %
General and administrative	28,960	27 %	25,069	28 %
Total operating expenses	150,313	141 %	131,394	146 %
Loss from operations	(59,609)	(56)%	(51,670)	(58)%
Interest and other income (expense), net:				
Interest income	1,304	1 %	186	— %
Interest expense	(2,819)	(3)%	(5,365)	(6)%
Other income (expense), net	(132)	— %	277	— %
Net loss	$ (61,256)	(58)%	$ (56,572)	(64)%

We derive the majority of our revenue from sales to customers in the U.S. Revenue by geography is based on billing address of the customer. The table below summarizes our revenue by geography:

	Year ended December 31, 2022		Year ended December 31, 2021	
	Amount	%	Amount	%
	(in thousands except for percentages)			
United States	$ 98,751	93 %	$ 82,739	92 %
International	7,658	7 %	7,413	8 %
	$ 106,409	100 %	$ 90,152	100 %

Comparison of the years ended December 31, 2022 and 2021

Revenue, Cost of Goods Sold, Gross Profit, and Gross Margin:

	Year Ended December 31,			
	2022	2021	$ Change	% Change
	(in thousands except for percentages)			
Revenue	$ 106,409	$ 90,152	$ 16,257	18 %
Cost of goods sold	15,705	10,428	5,277	51 %
Gross profit	$ 90,704	$ 79,724	$ 10,980	14 %
Gross margin	85 %	88 %		

Revenue. The increase in revenue for the year ended December 31, 2022 compared to the year ended December 31, 2021 comprised a $16.0 million increase in our U.S. revenue and an increase of $0.2 million in our international revenue. The increase in revenue is due to the increase in domestic and international case volumes, driven by a seasoned and expanding sales force and growing base of active surgeons. This increase was partially offset by lower average selling prices, challenges in certain international markets and impact of foreign exchange on our international revenue.

Gross Profit and Gross Margin. Gross profit increased $11.0 million for the year ended December 31, 2022 compared to the year ended December 31, 2021 driven by higher revenue. Gross margin was 85% for the year ended December 31, 2022 compared to 88% in the prior year. Gross margin decreased due to lower average selling prices driven by procedure and product mix, as well as type of medical facilities where the procedures were performed. Gross margin also included the impact of higher costs of newly launched implants and the increase in cost to support the growth of the business, including increase in depreciation from instrument trays for newly launched products.

Operating Expenses:

	Year Ended December 31,			
	2022	2021	$ Change	% Change
	(in thousands, except for percentages)			
Sales and marketing	$ 107,726	$ 93,884	$ 13,842	15 %
Research and development	13,627	12,441	1,186	10 %
General and administrative	28,960	25,069	3,891	16 %
Total operating expenses	$ 150,313	$ 131,394	$ 18,919	14 %

Sales and Marketing Expenses. The increase in sales and marketing expenses for the year ended December 31, 2022 as compared to the year ended December 31, 2021 was due to increases in employee related costs, commissions and stock-based compensation of $11.0 million driven by increased headcount and higher revenues, and increased travel, marketing and other related costs resulting in an increase of $3.1 million, partially offset by lower consulting fees of $0.3 million associated with more targeted surgeon programs.

Research and Development Expenses. The increase in research and development expenses for the year ended December 31, 2022 as compared to the year ended December 31, 2021 was due to an increase of $1.5 million in employee related costs and stock-based compensation driven by increased headcount, partially offset by a decrease of $0.3 million in consulting and research and development activities related to the timing of new product development.

General and Administrative Expenses. The increase in general and administrative expenses for the year ended December 31, 2022 as compared to the year ended December 31, 2021 was due to an increase of $3.8 million in employee related costs and stock-based compensation driven by increased headcount, an increase of $0.3 million in consulting primarily associated with Sarbanes-Oxley compliance requirements, and an increase of $0.2 million for the allowance for credit losses, partially offset by a decrease of $0.4 million in insurance costs.

Interest and Other Income (Expense), Net:

	Year Ended December 31,			
	2022	2021	$ Change	% Change
	(in thousands, except for percentages)			
Interest income	$ 1,304	$ 186	$ 1,118	601 %
Interest expense	(2,819)	(5,365)	2,546	47 %
Other income (expense), net	(132)	277	(409)	(148)%
Total interest and other income (expense), net	$ (1,647)	$ (4,902)	$ 3,255	66 %

Interest Income. The increase in interest income for the year ended December 31, 2022 as compared to the year ended December 31, 2021 was mainly due to higher interest earned on our investments in marketable securities, primarily as a result of higher interest rates.

Interest Expense. The decrease in interest expense for the year ended December 31, 2022 as compared to the year ended December 31, 2021 was primarily due to $0.7 million of lower interest associated with the SVB Term Loan in 2022 compared to the SVB Term Loan and Solar Term Loan in 2021, offset in part by the loss on extinguishment of the Solar Term Loan of $1.8 million in 2021.

Other Income (Expense), Net. Other income (expense), net changed from income to expense for the year ended December 31, 2022 as compared to the year ended December 31, 2021 due to foreign currency fluctuations.

Liquidity and Capital Resources

As of December 31, 2022, we had cash and marketable securities of $97.3 million compared to $147.0 million as of December 31, 2021. We have financed our operations primarily through our public offerings and debt financing arrangements. As of December 31, 2022 and 2021 we had $35.2 million and $35.0 million outstanding debt, respectively.

As of December 31, 2022, we had an accumulated deficit of $357.1 million. During the years ended December 31, 2022 and 2021, we incurred a net loss of $61.3 million and $56.6 million, respectively, and expect to incur additional losses in the future. We have not achieved positive cash flow from operations to date.

Based upon our current operating plan, we believe that our existing cash and marketable securities will enable us to fund our operating expenses and capital expenditure requirements over the next 12 months and beyond. However, the impact of future pandemics or economic downturn, and our responses thereto (including such actions we have taken or may take in the future as disclosed elsewhere in this Report) pose risks and uncertainties in our future available capital resources. Further, we may face challenges and uncertainties and, as a result, may need to raise additional capital as our available capital resources may be consumed more rapidly than currently expected due to, but not limited to, the following as a result of the COVID-19 pandemic or otherwise: (a) decreases in sales of our products and the uncertainty of future revenues from new products; (b) changes we may make to the business that affect ongoing operating expenses; (c) changes we may make in our business strategy; (d) regulatory developments affecting our existing products; (e) changes we may make in our research and development spending plans; and (f) other items affecting our forecasted level of expenditures and use of cash resources.

Term Loan

On May 29, 2020, we entered into a term loan with Solar Capital Partners (“Solar”). Pursuant to the Loan and Security Agreement, Solar provided an aggregate principal amount of $40.0 million term loan (the “Solar Term Loan”). We paid in full and terminated the Solar Term Loan in August 2021.

The outstanding debt as of December 31, 2022 is related to a term loan entered into by us with Silicon Valley Bank (“SVB”). Pursuant to the Loan and Security Agreement (“Loan Agreement”) dated August 12, 2021 (the “Effective Date”), SVB provided an aggregate principal amount of $35.0 million to us (the “SVB Term Loan”). We used the proceeds of the SVB Term Loan to repay in full and terminate the Solar Term Loan, which was accounted for as debt extinguishment in accordance with the accounting standards. We recognized the unamortized debt issuance costs and unaccreted value of final fee of $1.3 million and the prepayment penalty and lender fees of $0.5 million related to Solar Term Loan as a loss on debt extinguishment. The costs and fees are reflected as interest expense in the consolidated statement of operations for the year ended December 31, 2021. The total debt issuance costs of $0.1 million associated with the SVB Term Loan were recorded in the consolidated balance sheet as a direct deduction from the carrying amount of the loan, and are amortized as a component of interest expense using straight-line method over the life of the term loan.

The SVB Term Loan matures (the “Maturity Date”) on either (a) August 1, 2025 or (b) August 1, 2026 dependent on our achievement of a certain financial performance milestone as of December 31, 2022, as set forth in the Loan Agreement. As of December 31, 2022, we achieved the performance milestone, therefore the Maturity Date was extended to August 1, 2026. We accounted for this change in Maturity Date as a debt modification, and accordingly, the unamortized discount and debt issuance costs associated with the SVB Term Loan are being amortized to interest expense using straight-line method over the remaining term of the loan through August 1, 2026. Interest on the SVB Term Loan will be payable monthly at an annual rate set at the greater of (a) 5.75% and (b) prime rate as published in the Wall Street Journal plus 2.5%. Commencing on September 1, 2023, we will be required to make monthly principal amortization payments. We may elect to prepay the SVB Term Loan prior to the Maturity Date subject to a prepayment fee equal to 1% if the prepayment occurs prior to the second anniversary of the Effective Date and 0% if the prepayment occurs on or at any time after the second anniversary of the Effective Date. The SVB Term Loan is secured by substantially all our assets other than our intellectual property. We are also obligated to pay a final payment equal to $0.7 million or 2% of the aggregate principal amount of the SVB Term Loan, which was fully earned by SVB on the effective date of the Loan Agreement. With respect to the SVB Term Loan, this final payment shall be due and payable on the earliest of (i) the maturity date, (ii) the full repayment of the loan, (iii) permitted prepayment and mandatory prepayment upon an acceleration as specified in the agreement or (iv) the termination of the agreement. The final payment was included within the long-term borrowings and is accreted to interest expense using straight-line method over the life of the term loan.

The Loan Agreement includes affirmative and negative covenants applicable to us and certain of our foreign subsidiaries. The affirmative covenants include, among others, covenants requiring us to maintain our legal existence and governmental compliance, deliver certain financial reports, and maintain insurance coverage. The negative covenants include, among others, restrictions regarding transferring collateral, pledging our intellectual property to other parties, engaging in mergers or acquisitions, paying dividends or making other distributions, incurring indebtedness, transacting with affiliates, and entering into certain investments, in each case subject to certain exceptions. As of December 31, 2022, we were in compliance with all debt covenants.

In January 2023, our outstanding amount under the SVB Term Loan was refinanced on a long-term basis and is accordingly classified as term note, noncurrent as of December 31, 2022. See Note 15 in the accompanying Notes to Consolidated Financial Statements in Item 8 of this Form 10-K for a discussion of our full repayment and termination of the SVB Term Loan and entry into a new term loan and revolving credit facility.

Cash Requirements

Our material cash requirements include various contractual and other obligations consisting of long-term debt obligations with SVB, operating lease obligations and purchase obligations with some of our suppliers. Expected timing of those payments are as follows:

		Payments Due By Period			
	Total	Less than 1 year	1-3 years	4-5 years	More than 5 years
		(in thousands)			
Principal obligations and final fee on long-term debt (1)	$ 35,700	$ 4,861	$ 23,334	$ 7,505	$ —
Interest obligations (2)	7,541	3,466	3,847	228	—
Operating leases obligations	4,645	1,590	2,517	538	—
Purchase obligations	821	821	—	—	—
Total	$ 48,707	$ 10,738	$ 29,698	$ 8,271	$ —

(1) Represents the principal obligations and the final fee at maturities of our SVB Term Loan.
(2) Represents the future interest obligations on our SVB Term Loan estimated using an interest rate of 10.0% as of December 31, 2022.

This compared to $48.4 million of contractual obligations as of December 31, 2021.

Cash Flows

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

	Year Ended December 31,		
	2022	2021	$ Change
	(in thousands, except for percentages)		
Net cash provided by (used in):			
Operating activities	$ (41,655)	$ (39,533)	$ (2,122)
Investing activities	(2,815)	51,580	(54,395)
Financing activities	2,197	(1,711)	3,908
Effects of exchange rate changes on cash and cash equivalents	(429)	(498)	69
Net increase in cash and cash equivalents	$ (42,702)	$ 9,838	$ (52,540)

Cash Used in Operating Activities

Net cash used in operating activities for the year ended December 31, 2022 of $41.7 million resulted from cash outflows due to net loss of $61.3 million, adjusted for $27.2 million of non-cash items and cash outflows from changes in operating assets and liabilities of $7.6 million. Net cash used in operation activities for the year ended December 31, 2021 of $39.5 million resulted from cash outflows due to net loss of $56.6 million, adjusted for $22.8 million of non-cash items and cash outflows from changes in operating assets and liabilities of $5.7 million. The increase in net loss, net of non-cash items for the year ended December 31, 2022 compared to the year ended December 31, 2021 was mainly due to the higher operating expenses from the growth of the business. Net cash outflows from changes in operating assets and liabilities for year ended December 31, 2022 were primarily due to higher inventory build-up related to our iFuse-TORQ and iFuse Bedrock Granite implants and higher accounts receivable due to timing of collections and the increase in revenue in the fourth quarter of 2022, offset in part by a decrease in prepaid expenses due to timing of payments for software subscriptions and lower prepaid annual insurance premiums, an increase in accounts payable due to the timing of vendor payments, and an increase in accrued liabilities and other due to timing of other third-party payments and higher compensation and benefits accruals. Net cash outflows from changes in operating assets and liabilities for the year ended December 31, 2021 were primarily due to higher inventory build-up related to our iFuse-TORQ implants and timing of accounts receivable collections due to the increase in revenue in the fourth quarter of 2021, an increase in prepaid expenses due to higher prepaid insurance related to annual insurance premiums, and a decrease in accounts payable due to the timing of vendor payments, partially offset by an increase in accrued liabilities and other due to timing of other third-party payments and higher compensation and benefits accruals.

Cash (Used In) Provided by Investing Activities

Net cash used in investing activities in the year ended December 31, 2022 was $2.8 million compared to net cash provided by investing activities of $51.6 million in the year ended December 31, 2021. Net cash used in investing activities for the year ended December 31, 2022 consisted of purchases of property and equipment of $9.5 million related to individual components in instrument sets to support increased case volumes, increased demand for iFuse-TORQ and the launch of iFuse Bedrock Granite, as well as capitalized costs related to the lease in Santa Clara, partially offset by maturities of our marketable securities, net of purchases of $6.7 million. Net cash provided by investing activities for the year ended December 31, 2021 consisted of maturities of our marketable securities, net of purchases of $58.0 million, partially offset by purchases of property and equipment of $6.4 million for individual components in instrument sets, primarily for the launch of iFuse-TORQ and capitalized costs related to the lease in Santa Clara.

Cash Provided by (Used In) Financing Activities

Cash provided by financing activities in the year ended December 31, 2022 was $2.2 million related to proceeds from the issuance of common stock under our stock-based incentive compensation plans. Cash used in financing activities for the year ended December 31, 2021 was $1.7 million and includes the paydown of our debt by $5.0 million and $1.6 million of other payments associated with refinancing of our debt, partially offset by proceeds from the issuance of common stock under our stock-based incentive compensation plans of $4.9 million.

Critical Accounting Policies, Significant Judgments, and Use of Estimates

This discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP"). The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as the reported revenue generated, and expenses incurred during the reporting periods. We base our estimates on our historical experience, current market conditions and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. We believe that the accounting policy discussed below is critical to understanding our historical and future performance, as it relates to the more significant area involving management's judgments. For more comprehensive discussion of our significant accounting policies, refer to "Note 2 - Summary of Significant Account Policies" in the accompanying Notes to Consolidated Financial Statements in Item 8 of this Form 10-K.

Revenue Recognition

We derive our revenue from the sale of our products to medical groups and hospitals through our direct sales force and distributors throughout the U.S. and Europe. In accordance with ASC 606, we recognize revenue when control is transferred to the customer, in an amount that reflects the consideration we expect to be entitled to in exchange for the goods or services. To recognize revenue, we apply the following five step approach: (1) identify the contract with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when a performance obligation is satisfied.

As it relates to majority of our revenue consisting of product sales where our sales representative delivers the product at the point of implantation at hospital or medical facilities, we recognize the revenue upon completion of the procedure and authorization by the customer, net of rebates and price discounts. We also generate a small portion of our revenue from sale of products through distributors and hospital or medical facilities where the product is ordered in advance of a procedure. The performance obligation is the delivery of the product and therefore, we recognize revenue upon shipment to the customers, net of rebates and price discounts. We account for rebates and price discounts as reduction to revenue, calculated based on the terms agreed to with the customer. Historically, there had been no significant price discounts. Sales prices are specified in either customer contract, agreed price list, or purchase order, which is executed prior to the transfer of control to the customer. For certain hospitals and medical facilities, we have agreements in place consisting of either a master services agreement or an approved price list, which defines the terms and conditions of the arrangement, including the pricing information, payment terms and pertinent aspects of the relationship between the parties. We also have agreements in place with its distributors, which include standard terms that do not allow for payment contingent on resale of the product, obtaining financing, or other terms that could impact the distributor's payment obligation. Our standard payment terms are generally net 30 to 90 days. We consider sales commissions and related expenses as incremental and recoverable costs of acquiring customer contracts. Our sales commissions paid to our sales representatives commensurate for each surgery performed. The period of benefit is concurrent when we recognize our revenue, as such, we also recognize sales commission as expense when incurred.

Stock-Based Compensation

We grant restricted stock unit awards subject to market and service vesting conditions to certain executive officers. This type of grant consists of the right to receive shares of common stock, subject to achievement of time-based criteria and certain market-related performance goals over a specified period, as established by the Compensation Committee of the Company's Board of Directors. The fair value of our market-related performance awards is estimated using a Monte-Carlo simulation, which incorporates the probability of the achievement of the market-related performance goals at the date of grant. If such performance goals are not ultimately met, the expense is not reversed. Stock-based compensation expense is recognized ratably over the requisite service period.

Seasonality

Our business is affected by seasonal variations. For instance, we have historically experienced lower sales in the summer months and higher sales in the last quarter of the fiscal year. However, taken as a whole, seasonality does not have a material impact on our financial results.

Recent Accounting Pronouncements

See Note 2 of Notes to Consolidated Financial Statements for related discussions on recently adopted accounting standards and updates on recently issued accounting standards not yet effective, which information is incorporated by reference here.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

As a "small reporting company", we are not required to provide the information otherwise required by this Item.

Item 8. Financial Statements and Supplementary Data

SI-BONE, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of SI-BONE, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of SI-BONE, Inc. and its subsidiaries (the "Company") as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive loss, of changes in stockholders' equity and of cash flows for the years then ended, including the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, 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.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the 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 consolidated 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 consolidated financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

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

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition – U.S. Implantation Product Sales

As described in Note 2 to the consolidated financial statements, product sales where the Company's sales representative delivers the product at the point of implantation at the hospital or medical facilities represent the majority of the Company's consolidated revenue. The Company's consolidated revenue was $106.4 million for the year ended December 31, 2022, of which, $98.8 million is related to the U.S. Management recognizes the revenue from these sales upon completion of the procedure and authorization by the customer, net of rebates and price discounts. This represents the majority of the Company's consolidated revenue.

The principal consideration for our determination that performing procedures relating to revenue recognition, U.S. implantation product sales is a critical audit matter is the high degree of auditor effort in performing procedures related to the Company's revenue recognition.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included, among others, (i) evaluating revenue transactions by testing the issuance and settlement of invoices and credit memos, (ii) tracing transactions not settled to a detailed listing of accounts receivable, (iii) confirming a sample of outstanding customer invoice balances at year end and obtaining and inspecting source documents, including invoices, sales contracts, and proof of implantation for unpaid invoices, and obtaining subsequent cash receipt for paid invoices, where applicable, for confirmations not returned, and (iv) testing the completeness and accuracy of data provided by management.

/s/PricewaterhouseCoopers LLP
San Jose, California
March 2, 2023

We have served as the Company's auditor since 2013.

SI-BONE, INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except share and per share amounts)

	December 31, 2022	December 31, 2021
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 20,717	$ 63,419
Short-term investments	76,573	83,560
Accounts receivable, net of allowance for credit losses of $400 and $264, respectively	20,674	14,246
Inventory	17,282	11,498
Prepaid expenses and other current assets	2,365	3,143
Total current assets	137,611	175,866
Property and equipment, net	15,564	8,992
Operating lease right-of-use assets	4,002	5,248
Other non-current assets	375	400
TOTAL ASSETS	$ 157,552	$ 190,506
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable	$ 6,279	$ 3,198
Accrued liabilities and other	13,511	12,353
Operating lease liabilities, current portion	1,388	1,339
Total current liabilities	21,178	16,890
Long-term borrowings	35,171	34,973
Operating lease liabilities, net of current portion	2,871	4,166
Other long-term liabilities	30	57
TOTAL LIABILITIES	59,250	56,086
Commitments and contingencies (Note 6)		
STOCKHOLDERS' EQUITY		
Preferred stock, $0.0001 par value; 5,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.0001 par value; 100,000,000 shares authorized; 34,731,577 and 33,674,085 shares issued and outstanding, respectively	3	3
Additional paid-in capital	455,172	429,914
Accumulated other comprehensive income	232	352
Accumulated deficit	(357,105)	(295,849)
TOTAL STOCKHOLDERS' EQUITY	98,302	134,420
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$ 157,552	$ 190,506

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

SI-BONE, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except share and per share amounts)

	Year Ended December 31,	
	2022	2021
Revenue	$ 106,409	$ 90,152
Cost of goods sold	15,705	10,428
Gross profit	90,704	79,724
Operating expenses:		
Sales and marketing	107,726	93,884
Research and development	13,627	12,441
General and administrative	28,960	25,069
Total operating expenses	150,313	131,394
Loss from operations	(59,609)	(51,670)
Interest and other income (expense), net:		
Interest income	1,304	186
Interest expense	(2,819)	(5,365)
Other income (expense), net	(132)	277
Net loss	(61,256)	(56,572)
Other comprehensive income (loss):		
Unrealized loss of marketable securities	(65)	(31)
Changes in foreign currency translation	(55)	(141)
Comprehensive loss	$ (61,376)	$ (56,744)
Net loss per share, basic and diluted	$ (1.79)	$ (1.71)
Weighted-average number of common shares used to compute basic and diluted net loss per share	34,201,824	33,145,930

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

SI-BONE, INC.
CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY
(In thousands, except share amounts)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balances as of December 31, 2020	**32,583,220**	**$ 3**	**$ 408,113**	**$ 524**	**$ (239,277)**	**$ 169,363**
Issuance of common stock upon exercise of stock options, net of shares withheld	369,375	—	2,565	—	—	2,565
Issuance of common stock related to employee stock purchase plan	147,295	—	2,343	—	—	2,343
Issuance of common stock upon vesting of restricted stock units	574,195	—	—	—	—	—
Stock-based compensation	—	—	16,866	—	—	16,866
Vesting of early exercised stock options	—	—	27	—	—	27
Foreign currency translation	—	—	—	(141)	—	(141)
Net unrealized loss on marketable securities	—	—	—	(31)	—	(31)
Net loss	—	—	—	—	(56,572)	(56,572)
Balances as of December 31, 2021	**33,674,085**	**3**	**429,914**	**352**	**(295,849)**	**134,420**
Issuance of common stock upon exercise of stock options, net of shares withheld	80,571	—	379	—	—	379
Issuance of common stock related to employee stock purchase plan	170,717	—	1,818	—	—	1,818
Issuance of common stock upon vesting of restricted stock units	806,204	—	—	—	—	—
Stock-based compensation	—	—	23,061	—	—	23,061
Foreign currency translation	—	—	—	(55)	—	(55)
Net unrealized loss on marketable securities	—	—	—	(65)	—	(65)
Net loss	—	—	—	—	(61,256)	(61,256)
Balances as of December 31, 2022	**34,731,577**	**$ 3**	**$ 455,172**	**$ 232**	**$ (357,105)**	**$ 98,302**

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

SI-BONE, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,	
	2022	**2021**
Cash flows from operating activities		
Net loss	$ (61,256)	$ (56,572)
Adjustments to reconcile net loss to net cash used in operating activities		
Stock-based compensation	23,061	16,866
Depreciation and amortization	3,452	2,086
Accounts receivable credit losses	150	14
Accretion of discount on marketable securities	229	1,294
Amortization of debt issuance costs	198	288
Loss on extinguishment of debt	—	1,848
Loss on sale and disposal of property and equipment	153	399
Changes in operating assets and liabilities		
Accounts receivable	(6,479)	(569)
Inventory	(5,709)	(5,784)
Prepaid expenses and other assets	810	(594)
Accounts payable	2,529	(532)
Accrued liabilities and other	1,207	1,723
Net cash used in operating activities	(41,655)	(39,533)
Cash flows from investing activities		
Maturities of marketable securities	126,200	159,990
Purchases of marketable securities	(119,508)	(102,021)
Purchases of property and equipment	(9,507)	(6,389)
Net cash (used in) provided by investing activities	(2,815)	51,580
Cash flows from financing activities		
Proceeds from debt financing	—	35,000
Repayments of debt financing	—	(41,000)
Payments of debt issuance costs	—	(111)
Payments of prepayment penalty and lender fees	—	(508)
Proceeds from the exercise of common stock options	379	2,565
Proceeds from issuance of common stock under employee stock purchase plan	1,818	2,343
Net cash provided by (used in) financing activities	2,197	(1,711)
Effect of exchange rate changes on cash and cash equivalents	(429)	(498)
Net (decrease) increase in cash and cash equivalents	(42,702)	9,838
Cash and cash equivalents at		
Beginning of year	63,419	53,581
End of year	$ 20,717	$ 63,419
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 2,621	$ 3,230
Supplemental disclosure of non-cash information		
Vesting of early exercised stock options	$ —	$ 27
Unpaid purchases of property and equipment	1,115	509

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

1. The Company and Nature of Business

SI-BONE, Inc. (the "Company") was incorporated in the state of Delaware on March 18, 2008 and is headquartered in Santa Clara, California. The Company is a medical device company that has pioneered a proprietary minimally invasive surgical implant system to fuse the sacroiliac joint for treatment of musculoskeletal disorders of the sacropelvic anatomy. The Company introduced its first generation iFuse implant in 2009 in the U.S., in 2010 in certain countries in the European Union, and in 2015 in certain countries in the rest of the world. The second generation iFuse implant, iFuse 3-D, was introduced in 2017 followed by iFuse-TORQ in 2021 and iFuse Bedrock Granite in 2022.

Risks and Uncertainties

The Company is subject to continuing risk and uncertainties as a result of the COVID-19 pandemic, and is closely monitoring the impact of the pandemic on all aspects of its business, including the impacts on its customers, patients that would benefit from procedures involving the Company's products, employees, suppliers, vendors, business partners and distribution channels. Economies worldwide continue to be negatively impacted by the COVID-19 pandemic, in particular with recurrent mutations of the virus, despite advances in vaccines, and the Company anticipates these disruptions will continue. Certain of the Company's third-party suppliers have faced delays, product shortages and rising costs resulting from disruptions in the global supply chain, resulting in shop capacity issues impacting lead-times and quantities of implants and instruments available. As a result, the Company is continuing to work closely with its manufacturing partners and suppliers, as well as determining alternative sourcing strategies to enable the Company to source key components and maintain appropriate inventory levels to meet customer demand. As such the Company's future results of operations and liquidity could be adversely impacted by a variety of factors related to the COVID-19 pandemic, including those discussed in the section entitled "Risk Factors" in this report. As of the date of issuance of these consolidated financial statements, the extent to which the COVID-19 pandemic and global supply chain issues may materially impact the Company's financial condition, liquidity, or results of operations remains uncertain.

2. Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP"). The consolidated financial statements include the Company's accounts, as well as those of the Company's wholly-owned international subsidiaries. All inter-company accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Significant accounting estimates and management judgments reflected in the consolidated financial statements primarily includes the fair value of performance-based restricted stock unit awards. Estimates are based on historical experience, where applicable and other assumptions believed to be reasonable by the management. Actual results could differ from those estimates.

Segments

The Company's chief operating decision makers are the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"). The CEO and the CFO review financial information presented on a consolidated basis, accompanied by information about revenue by geographic region, for purposes of evaluating financial performance. The Company has one business activity and there are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reportable and operating segment structure.

The Company derives substantially all of its revenue from sales to customers in the U.S. Revenue by geography is based on billing address of the customer. International revenue accounted for less than 10% of the total revenue during the periods presented. Long-lived assets held outside the U.S. are immaterial. Following table summarizes the Company's revenue by geography:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
United States	$ 98,751	$ 82,739
International	7,658	7,413
	$ 106,409	$ 90,152

Foreign Currency

The Company's foreign subsidiaries use local currency as their functional currency. Assets and liabilities are translated at exchange rates prevailing at the balance sheet dates. Revenue, costs and expenses are translated into U.S. dollars using average exchange rates for the period. Gains and losses from foreign currency translation are recorded as a component of accumulated other comprehensive income (loss). Gains and losses from foreign currency transactions are recognized as a component of other income (expense), net.

Concentration of Credit Risk

Financial instruments that potentially subject the Company to a concentration of credit risk consist of cash and marketable securities. The Company's cash and marketable securities are deposited with financial institutions in the U.S. and in Europe. The majority of the Company's cash and marketable securities are deposited with a single financial institution in the U.S. Deposits in this institution exceed the amount of insurance provided on such deposits. The Company has not experienced any net losses on its deposits of cash and marketable securities.

The Company's revenue and accounts receivable are spread across a large number of customers, primarily in the U.S., and no customer accounts for more than 10% of total revenue or gross accounts receivable in any period presented.

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 due to their relatively short maturities and market interest rates, if applicable. The Company's marketable securities are classified as Level 1 or Level 2 of the fair value hierarchy as defined below. The carrying value of the Company's long-term debt also approximates fair value based on management's estimation that a current interest rate would not differ materially from the stated rate.

The Company discloses and recognizes the fair value of its assets and liabilities using a hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. Fair value is 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 liability. As a basis for considering such assumptions, a three-tier value hierarchy has been established, which prioritizes the inputs used in measuring fair value as follows:

Level 1: Quoted prices (unadjusted) in active market that are accessible at measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2: Observable prices that are based on inputs not quoted on active markets, but corroborated by market data.

Level 3: Unobservable inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and considers factors specific to the asset or liability.

Cash and Cash Equivalents

The Company considers all highly liquid investments with remaining maturities at the date of purchase of three months or less to be cash equivalents.

Marketable Securities

The Company's marketable securities primarily consist of investments in money market funds, U.S. treasury securities, U.S. agency bonds, corporate bonds and commercial paper. All of the Company's marketable securities are available-for-sale debt securities and are classified based on their maturities. Marketable securities with remaining maturities at the date of purchase of three months or less are classified as cash equivalents. Short term investments are securities that original or remaining maturity is greater than three months and not more than twelve months. Long-term investments are securities that original or remaining maturity is more than twelve months. All marketable securities are recorded at their estimated fair value. When the fair value of a security is below its amortized cost, the amortized cost will be reduced to its fair value if it is more likely than not that the Company will be required to sell the potentially impaired security before recovery of its amortized cost basis, or the Company has the intention to sell the security. If neither of these conditions are met, the Company determines whether the impairment is due to credit losses by comparing the present value of the expected cash flows of the security with its amortized cost basis. The amount of impairment recognized is limited to the excess of the amortized cost over the fair value of the security. An allowance for credit losses for the excess of amortized cost over the expected cash flows is recorded in other income, net in the consolidated statements of operations. Impairment losses that are not credit-related are included in accumulated other comprehensive income (loss) in stockholders' equity.

Accounts Receivable and Allowance for Credit Losses

Trade accounts receivable are recorded at the invoiced amount, net of allowances for credit losses for any potential uncollectible amounts. The allowance for credit losses is based on our assessment of the collectability of accounts. Management regularly reviews the adequacy of the allowance for credit losses on a collective basis by considering the age of each outstanding invoice, each customer's expected ability to pay and collection history, current market conditions, and reasonable and supportable forecasts of future economic conditions to determine whether the allowance is appropriate. Accounts receivable are written-off and charged against an allowance for credit losses when the Company has exhausted collection efforts without success. For the years ended December 31, 2022 and 2021, the allowance for credit losses activity was not significant.

The movement in the allowance for credit losses was as follows:

	Year ended December 31,	
	2022	2021
	(in thousands)	
Balance at beginning of year	$ 264	$ 263
Provision	150	14
Write-offs	(14)	(13)
Balance at end of year	$ 400	$ 264

Inventory

Inventory is stated at lower of cost or net realizable value. The Company establishes the inventory basis by determining the cost based on standard costs approximating the purchase costs on a first-in, first-out basis. The excess and obsolete inventory is estimated based on future demand and market conditions. Inventory write-downs are charged to cost of goods sold.

Property and Equipment

Property and equipment are stated at cost less accumulated depreciation and amortization. All property and equipment is depreciated on a straight-line basis over the estimated useful lives of the assets, which are as follows:

Computer and office equipment	3 – 5 years
Machinery and equipment	3 – 5 years
Furniture and fixtures	7 years

Leasehold improvements are amortized over the lesser of their useful lives or the life of the lease. Upon sale or retirement of the assets, the cost and related accumulated depreciation are removed from the consolidated balance sheet and the resulting gain or loss is recognized in the consolidated statement of operations. Maintenance and repairs are charged to operations as incurred.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets (or asset group) may not be fully recoverable. Whenever events or changes in circumstances suggest that the carrying amount of long-lived assets may not be recoverable, the Company estimates the future cash flows expected to be generated by the assets (or asset group) from its use or eventual disposition. If the sum of the expected future cash flows is less than the carrying amount of those assets, the Company recognizes an impairment loss based on the excess of the carrying amount over the fair value of the assets. Significant management judgment is required in the grouping of long-lived assets and forecasts of future operating results that are used in the discounted cash flow method of valuation. For the years ended December 31, 2022 and 2021, the Company has not experienced impairment losses on its long-lived assets.

Leases

The Company determines if an arrangement is a lease at inception. The classification of leases is evaluated at commencement and, as necessary, at modification. Operating leases are included in operating lease right-of-use assets and operating lease liabilities on the consolidated balance sheets. The Company does not have any material finance leases in any of the periods presented.

Under Accounting Standards Update ("ASU") 2016-02, Leases Topic 842 ("Topic 842"), operating lease expense is recognized on a straight-line basis over the term of the lease. Variable lease payments are recognized as operating expenses in the period in which the obligation for those payments is incurred. Variable lease payments primarily include common area maintenance, utilities, real estate taxes and other operating costs that are passed on from the lessor in proportion to the space leased by the Company. The lease term represents the non-cancelable period of the lease. For certain leases, the Company has an option to extend the lease term. These renewal options are not considered in the remaining lease term unless it is reasonably certain that the Company will exercise such options.

The Company elected certain practical expedients under Topic 842 which are: (i) to not record leases with an initial term of twelve months or less on the balance sheet; (ii) to combine the lease and non-lease components in determining the lease liabilities and right-of-use assets, and (iii) to carry forward prior conclusions about lease identification and classification. The Company’s lease contracts do not provide an implicit borrowing rate; hence the Company determined the incremental borrowing rate based on information available at lease commencement to determine the present value of lease liability. The Company determines its incremental borrowing rate based on the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term, an amount equal to the lease payments in a similar economic environment. The Company uses its headquarters in the U.S. ("parent entity")’s incremental borrowing rates as the treasury operations are managed centrally by the parent entity.

Revenue Recognition

The Company's revenue is derived from the sale of its products to medical groups and hospitals through its direct sales force and distributors throughout the U.S. and Europe.

In accordance with Accounting Standards Codification ("ASC") 606, Revenue from Contracts with Customers ("ASC 606"), the Company recognizes revenue when control is transferred to the customer, in an amount that reflects the consideration the Company expects to be entitled to in exchange for the goods or services. Under the revenue recognition standard, the Company applies the following five step approach: (1) identify the contract with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when a performance obligation is satisfied. As it relates to product sales where the Company's sales representative delivers the product at the point of implantation at the hospital or medical facilities, the Company continues to recognize the revenue upon completion of the procedure and authorization by the customer, net of rebates and price discounts. This represents the majority of the Company's consolidated revenue. The Company also generates a small portion of revenue from the sale of products through distributors and to certain hospital or medical facilities where the products are ordered in advance of a procedure. The performance obligation is the delivery of the products and therefore, revenue is recognized upon shipment to the customers, net of rebates and price discounts. The Company accounts for rebates and price discounts as a reduction to revenue, calculated based on the terms agreed to with the customer. Historically, there had been no significant price discounts. Sales prices are specified in either the customer contract or agreed price list, which is executed prior to the transfer of control to the customer. For certain hospitals and medical facilities, the Company has agreements in place consists of either a master services agreement or an agreed price list, which defines the terms and conditions of the arrangement, including the pricing information, payment terms and pertinent aspects of the relationship between the parties. The Company also has agreements in place with its distributors, which include standard terms that do not allow for payment contingent on resale of the product, obtaining financing, or other terms that could impact the distributor's payment obligation. The Company's standard payment terms are generally net 30 to 90 days.

Shipping and Handling Costs

Shipping and handling costs are treated as fulfillment costs, which are expensed as incurred and are included in cost of goods sold.

Costs to Obtain Customer Contracts

Sales commissions and related expenses are considered incremental and recoverable costs of acquiring customer contracts. The Company's sales commissions paid to its sales representatives are generally based on the surgeries performed. The Company applied the practical expedient that permits an entity to expense the cost to obtain a contract as incurred when the expected amortization is one year or less. The period of benefit is concurrent with when the Company recognizes its revenue and as such, the Company recognizes sales commission as expense when incurred.

Warranty

The Company has a warranty program that provides a purchaser a one-time replacement of any iFuse implant at no additional cost for a revision procedure within a one-year period following the original procedure and is accounted for as a warranty accrual. The Company also provides a purchaser with a one-time credit equal to the purchase price paid for use on future purchases for any revision procedure within the one-year period following an original procedure where an implant is not required. The warranty is not priced or sold separately and is intended to safeguard the customer against defects and it does not provide incremental service to the customer. As such, it is considered an assurance type warranty and is not accounted as a service type warranty, which could represent a separate performance obligation. The Company accounts for these one-time credits as sales reserves and is included in accrued liabilities and other in the consolidated balance sheets. Sales and warranty reserves from the warranty program were immaterial as of December 31, 2022 and 2021.

Research and Development

Research and development costs are charged to operations as incurred and consist of costs incurred by the Company for the development of the Company's product which primarily include: (1) employee-related expenses, including salaries, benefits, travel and stock-based compensation expense; (2) external research and development expenses; and (3) other expenses, which include direct and allocated expenses for facilities and other costs.

Advertising Expenditures

The cost of advertising is expensed as incurred and is included under sales and marketing expense in the consolidated statements of operations. Advertising expenses were $1.6 million and $1.2 million for the years ended December 31, 2022 and 2021, respectively.

Loss Contingency

The Company is subject to various potential loss contingencies arising in the ordinary course of business. From time to time, the Company may be involved in certain proceedings, legal actions and claims. Such matters are subject to many uncertainties, and the outcomes of these matters are not within the Company's control and may not be known for prolonged periods of time. In some actions, the claimants may seek damages, as well as other relief, including injunctions which may prohibit the Company to engage in certain activities, which, if granted, could require significant expenditures and/or result in lost revenues. The Company records a liability in the consolidated financial statements when a loss is known or considered probable and the amount can be reasonably estimated. If the reasonable estimate of a known or probable loss is a range, and no amount within the range is a better estimate than any other, the minimum amount of the range is accrued. If a loss is reasonably possible but not known or probable, and can be reasonably estimated, the estimated loss or range of loss is disclosed. In most cases, significant judgment is required to estimate the amount and timing of a loss to be recorded.

Stock-Based Compensation

The Company applies the fair value recognition provisions of stock-based compensation. Stock-based compensation expense is recognized over the requisite service period using the straight-line method and is based on the value of the portion of stock-based payment awards that is ultimately expected to vest. As such, the Company's stock-based compensation is reduced for the estimated forfeitures at the date of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The Company uses historical data to estimate pre-vesting forfeitures and record stock-based compensation expense only for those awards that are expected to vest. To the extent actual forfeitures differ from the estimates, the difference will be recorded as a cumulative adjustment in the period that the estimates are revised.

The Company estimates the grant date fair value of stock options using the Black-Scholes option valuation model. The model requires management to make a number of assumptions including expected volatility, expected term, risk-free interest rate and expected dividends. A number of these assumptions are subjective, and their determination generally require judgment.

- *Expected Term* - The expected term represents the period that the share-based awards are expected to be outstanding. The Company uses the simplified method to determine the expected term as permitted by the guidance since the Company has no sufficient historical exercise patterns to estimate the expected life. The simplified method is calculated as the average of the time to vesting and the contractual life of the options.
- *Expected Volatility* - The expected volatility is measured using the historical daily changes in the market price of the Company's common stock over a period consistent with the expected term.
- *Risk-Free Interest Rate* - The risk-free interest rate is based on the U.S. Treasury zero coupon issued in effect at the time of grant for periods corresponding with the expected term of the option.
- *Dividend Yield* - The Company has not paid any dividends and has no current plans to pay dividends on its common stock. As such, the Company uses expected dividend yield of zero.

The fair value of the restricted stock unit ("RSU") grant is based on the market price of the Company's common stock on the date of grant.

Equity instruments issued to non-employees are recorded at their fair value on the measurement date and are subject to periodic adjustments as the underlying equity instruments vest. The Company believes that the estimated fair value of the stock options is more readily measurable than the fair value of the services received. Stock-based compensation related to stock options granted to non-employees is recognized as the stock options are earned.

The Company grants restricted stock unit awards subject to market and service vesting conditions to certain executive officers. This type of grant consists of the right to receive shares of common stock, subject to achievement of time-based criteria and certain market-related performance goals over a specified period, as established by the Compensation Committee of the Company's Board of Directors. For these awards that are subject to market-related performance, the fair value is determined based on the number of shares granted and a Monte Carlo valuation model, which incorporates the probability of the achievement of the market-related performance goals as part of the grant date fair value. If such performance goals are not ultimately met, the expense is not reversed. Stock-based compensation expense is recognized ratably over the requisite service period.

In the event the underlying terms of stock awards are modified on which stock-based compensation was granted, additional expense is recognized for any modification that increases the total fair value of the share-based payment arrangement at the modification date.

Income Taxes

The Company accounts for income taxes under the asset and liability method, whereby deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities using the enacted tax rates in effect for the year in which the differences are expected to affect taxable income. A valuation allowance is established when necessary to reduce deferred tax assets to the amounts expected to be realized.

The Company recognizes uncertain tax positions when it meets a more-likely-than-not threshold. The Company recognizes potential accrued interest and penalties related to unrecognized tax benefits as income tax expense.

Net Loss per Share of Common Stock

The Company calculates basic and diluted net loss per common share attributable to shareholders in conformity with the two-class method required for companies with participating securities. The Company considers all early exercised stock options to be participating securities as the holders are entitled to receive dividends on a pari passu basis in the event that a dividend is paid on common stock. Under the two-class method, the net loss attributable to common stock is not allocated to the early exercised stock options as the holders do not have a contractual obligation to share in losses.

Basic net loss per common share is calculated by dividing the net loss by the weighted-average number of common shares outstanding during the period, without consideration for potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of common shares and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, common stock options, restricted stock units and warrants are considered to be potentially dilutive securities. Because the Company has reported a net loss in all periods presented, common stock options and warrants are anti-dilutive and therefore diluted net loss per common share is the same as basic net loss per common share for those periods.

Comprehensive Loss

Comprehensive loss represents changes in the stockholders' equity except those resulting from distributions to stockholders. The Company's unrealized foreign currency translation income (losses) and unrealized gains (losses) on marketable securities represent the two components of other comprehensive income that are excluded from the reported net loss for each of the reporting periods and has been presented in the consolidated statements of operations and comprehensive loss.

Warrants

The Company accounts for warrants for shares of common stock as equity in accordance with the accounting guidance for derivatives. The accounting guidance provides a scope exception from classifying and measuring as a financial liability a contract that would otherwise meet the definition of a derivative if the contract is both (i) indexed to the entity's own stock and (ii) classified in the stockholders' equity section of the consolidated balance sheet. The Company determined that the warrants for shares of common stock issued in connection with its prior debt arrangements are required to be classified in equity. Warrants classified as equity are recorded as additional paid-in capital on the consolidated balance sheet and no further adjustments to their valuation are made.

Recently Adopted Accounting Standards

In August 2020, the Financial Accounting Standards Board ("FASB") issued ASU 2020-06, Debt - Debt with Conversion and Other Options (ASC 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40). ASU 2020-06 simplifies the accounting for convertible instruments by removing the beneficial conversion and cash conversion accounting models for convertible instruments and removes certain settlement conditions that are required for contracts to qualify for equity classification. This new standard also simplifies the diluted earnings per share calculations by requiring that an entity use the if-converted method for convertible instruments and requires that the effect of potential share settlement be included in diluted earnings per share calculations when an instrument may be settled in cash or shares. The new standard requires entities to provide expanded disclosures about the terms and features of convertible instruments, how the instruments have been reported in the entity's financial statements, and information about events, conditions, and circumstances that can affect how to assess the amount or timing of an entity's future cash flows related to those instruments. The ASU is effective for public companies, excluding entities eligible to be smaller reporting companies, for fiscal years beginning after December 15, 2021. The new standard went effective on January 1, 2022, and it did not impact the Company's consolidated financial statements and related disclosures.

In May 2021, the FASB issued ASU 2021-04 "Earnings Per Share (Topic 260), Debt—Modifications and Extinguishments (Subtopic 470-50), Compensation— Stock Compensation (Topic 718), and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815- 40) Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options" ("ASU 2021-04") which clarifies and reduces diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options that remain equity classified after modification or exchange. An entity should measure the effect of a modification or an exchange of a freestanding equity-classified written call option that remains equity classified after modification or exchange as follows: i) for a modification or an exchange that is a part of or directly related to a modification or an exchange of an existing debt instrument or line-of-credit or revolving-debt arrangements (hereinafter, referred to as a "debt" or "debt instrument"), as the difference between the fair value of the modified or exchanged written call option and the fair value of that written call option immediately before it is modified or exchanged; ii) for all other modifications or exchanges, as the excess, if any, of the fair value of the modified or exchanged written call option over the fair value of that written call option immediately before it is modified or exchanged. The amendments in this update are effective for all entities for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. An entity should apply the amendments prospectively to modifications or exchanges occurring on or after the effective date of the amendments. The new standard went effective on January 1, 2022, and it did not impact the Company's consolidated financial statements and related disclosures.

Recently Issued Accounting Standards Not Yet Effective

In March 2022, the FASB issued ASU 2022-02, Financial Instruments - Credit Losses (Topic 326), Troubled Debt Restructurings ("TDRs") and Vintage Disclosures. ASU 2022-02 eliminates the accounting guidance for TDRs in ASC 310-40, Receivables - Troubled Debt Restructurings by Creditors. In addition, ASU 2022-02 also requires that public business entities disclose current-period gross write-offs by year of origination for financing receivables and net investments in leases within the scope of Subtopic 326-20, Financial Instruments—Credit Losses—Measured at Amortized Cost. The ASU is effective for public companies, excluding entities eligible to be smaller reporting companies, for fiscal years beginning after December 15, 2022. The Company is currently evaluating the impact of applying this guidance on its consolidated financial statements and related disclosures.

3. Marketable Securities

All of the Company's marketable securities were available-for-sale debt securities and were classified based on their maturities. Marketable securities with remaining maturities at the date of purchase of three months or less are classified as cash equivalents. Short-term investments are securities that original maturity or remaining maturity is greater than three months and not more than twelve months. Long-term investments are securities for which the original maturity or remaining maturity is greater than twelve months.

The table below summarizes the marketable securities:

	December 31, 2022			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Aggregate Fair Value
	(in thousands)			
Money market funds	$ 8,002	$ —	$ —	$ 8,002
Cash equivalents	8,002	—	—	8,002
U.S. treasury securities	48,636	4	(105)	48,535
U.S. agency bonds	2,918	3	—	2,921
Corporate bonds	2,914	—	(3)	2,911
Commercial paper	22,206	—	—	22,206
Short-term investments	76,674	7	(108)	76,573
Total marketable securities	$ 84,676	$ 7	$ (108)	$ 84,575

	December 31, 2021			
	Amortized Cost	Unrealized Gains	Unrealized Losses	Aggregate Fair Value
	(in thousands)			
Money market funds	$ 57,829	$ —	$ —	$ 57,829
Cash equivalents	57,829	—	—	57,829
U.S. treasury securities	28,064	—	(16)	28,048
Corporate bonds	31,558	4	(23)	31,539
Commercial paper	23,973	—	—	23,973
Short-term investments	83,595	4	(39)	83,560
Total marketable securities	$ 141,424	$ 4	$ (39)	$ 141,389

The amortized cost of the Company's available-for-sale securities approximates their fair value. Unrealized losses are generally due to interest rate fluctuations, as opposed to credit quality. However, the Company reviews individual securities that are in an unrealized loss position in order to evaluate whether or not they have experienced or are expected to experience credit losses. As of December 31, 2022 and 2021, unrealized gains and losses from the investments were not material and were not the result of a decline in credit quality. As a result, the Company did not recognize any credit losses related to its investments and that all unrealized gains and losses on available-for-sale securities are recorded in accumulated other comprehensive income (loss) on the consolidated balance sheets during the years ended December 31, 2022 and 2021.

The Company elected to present accrued interest receivable separately from short-term and long-term investments on its consolidated balance sheets. Accrued interest receivable was $0.2 million as of December 31, 2022, and was recorded in prepaid expenses and other current assets. The Company also elected to exclude accrued interest receivable from the estimation of expected credit losses on its marketable securities and reverse accrued interest receivable through interest income (expense) when amounts are determined to be uncollectible. The Company did not write off any accrued interest receivable during the years ended December 31, 2022 and 2021.

4. Fair Value Measurement

Carrying amounts of certain of the Company's financial instruments, including cash equivalents, accounts receivable, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities and market interest rates, if applicable. The carrying value of the Company's long-term debt also approximates fair value based on management's estimation that a current interest rate would not differ materially from the stated rate. There were no other financial assets and liabilities that requires fair value hierarchy measurements and disclosures for the periods presented.

The table below summarizes the fair value of the Company's marketable securities measured at fair value on a recurring basis based on the three-tier fair value hierarchy:

	December 31, 2022			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Marketable securities				
Money market funds	$ 8,002	$ —	$ —	$ 8,002
U.S. treasury securities	48,535	—	—	48,535
U.S. agency bonds	—	2,921	—	2,921
Corporate bonds	—	2,911	—	2,911
Commercial paper	—	22,206	—	22,206
Total marketable securities	$ 56,537	$ 28,038	$ —	$ 84,575

	December 31, 2021			
	Level 1	Level 2	Level 3	Total
	(in thousands)			
Marketable securities				
Money market funds	$ 57,829	$ —	$ —	$ 57,829
U.S. treasury securities	28,048	—	—	28,048
Corporate bonds	—	31,539	—	31,539
Commercial paper	—	23,973	—	23,973
Total marketable securities	$ 85,877	$ 55,512	$ —	$ 141,389

5. Balance Sheet Components

Inventory

As of December 31, 2022, inventory consisted of finished goods of $15.6 million and work-in-progress and components of $1.7 million. As of December 31, 2021, inventory consisted of finished goods.

Property and Equipment, net:

	December 31, 2022	December 31, 2021
	(in thousands)	
Machinery and equipment	$ 14,920	$ 10,573
Construction in progress	7,854	3,657
Computer and office equipment	976	916
Leasehold improvements	1,631	503
Furniture and fixtures	390	309
	25,771	15,958
Less: Accumulated depreciation and amortization	(10,207)	(6,966)
	$ 15,564	$ 8,992

As of December 31, 2022, construction in progress pertains to cost of individual components of a custom instrument set used for surgical placement of the Company's products that have not yet been placed into service of $5.0 million and construction costs related to the lease in Santa Clara and software costs of $2.9 million. Depreciation expense was $3.4 million and $2.1 million for the years ended December 31, 2022 and 2021, respectively.

Accrued Liabilities and Other:

	December 31, 2022	December 31, 2021
	(in thousands)	
Accrued compensation and related expenses	$ 11,365	$ 10,055
Accrued professional services	355	995
Others	1,791	1,303
	$ 13,511	$ 12,353

6. Commitments and Contingencies

Operating Leases

The Company has a non-cancelable operating lease for an office building space, located in Santa Clara, California, which expires in May 2025 and a building used for research and development and warehouse space in Santa Clara, California, which expires in October 2026. The Company also has non-cancelable operating leases for its office building spaces in Gallarate, Italy and Knaresborough, United Kingdom, which expire in August 2027 and December 2025, respectively.

The Company also leases vehicles under operating lease arrangements for certain of its personnel in Europe which expire at various times throughout 2022 to 2027.

Supplemental information related to lease expense and valuation of the lease assets and lease liabilities are as follows:

	December 31, 2022	December 31, 2021
	(in thousands)	
Operating lease expense	$ 1,599	$ 1,181
Variable lease expense	461	266
Total lease expense	$ 2,060	$ 1,447
Cash paid for amounts included in the measurement of operating lease liabilities	$ 1,600	$ 1,225
Leased assets obtained in exchange for new operating lease liabilities	$ 127	$ 2,896
Weighted average remaining lease term (in years)	3.05	3.98
Weighted average discount rate	5.77%	5.75%

Future minimum lease payments under non-cancelable operating leases as of December 31, 2022 was as follows:

Year Ending December 31,	(in thousands)
2023	$ 1,590
2024	1,513
2025	1,004
2026	529
2027	9
Thereafter	—
Total operating lease payments	$ 4,645
Less: imputed interest	(386)
Total operating lease liabilities	$ 4,259

As of December 31, 2022, the Company had no operating lease liabilities that had not commenced.

Purchase Commitments and Obligations

The Company has certain purchase commitments related to its inventory management with certain manufacturing suppliers wherein the Company is required to purchase the amounts forecasted in a blanket purchase order. The contractual obligations represent future cash commitments and liabilities under agreements with third parties and exclude orders for goods and services entered into in the normal course of business that are not enforceable or legally binding. These outstanding commitments amounted to $0.8 million and $1.2 million as of December 31, 2022 and 2021, respectively.

Indemnification

The Company enters into standard indemnification arrangements in the ordinary course of business. Pursuant to these arrangements, the Company indemnifies, holds harmless, and agrees to reimburse the indemnified parties for losses suffered or incurred by the indemnified party, in connection with any trade secret, copyright, patent or other intellectual property infringement claim by any third-party with respect to the Company's technology. The term of these indemnification agreements is generally perpetual. The maximum potential amount of future payments the Company could be required to make under these agreements is not determinable because it involves claims that may be made against the Company in the future, but have not yet been made.

The Company has entered into indemnification agreements with its directors and officers that may require the Company to indemnify its directors and officers against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct of the individual.

The Company has not incurred costs to defend lawsuits or settle claims related to these indemnification agreements. No liability associated with such indemnifications has been recorded to date.

Legal Contingencies

From time to time, the Company may become involved in legal proceedings arising in the ordinary course of its business. The Company is not presently a party to any material legal proceedings that, if determined adversely to the Company, would have a material adverse effect on the Company.

7. Borrowings

Term Loan

The following table summarizes the outstanding borrowings from the term loan as of the periods presented:

	December 31, 2022	December 31, 2021
	(in thousands)	
Principal outstanding and final fee	$ 35,700	$ 35,700
Less: Unamortized debt issuance costs	(73)	(100)
Unaccreted value of final fee	(456)	(627)
Outstanding debt, net of debt issuance costs and unaccreted value of final fee	$ 35,171	$ 34,973
Classified as:		
Long-term borrowings	$ 35,171	$ 34,973

In May 29, 2020, the Company entered into a term loan with Solar Capital Partners (“Solar”). Pursuant to the Loan and Security Agreement, Solar provided an aggregate principal amount of $40.0 million term loan (the “Solar Term Loan”). The Solar Term Loan bore interest at a rate per annum equal to 9.40% plus London Interbank Offered Rate (“LIBOR”), payable monthly in arrears. LIBOR means the greater of (i) 0.33% or (ii) one-month LIBOR (or a comparable replacement rate to be determined by the collateral agent if the LIBOR is no longer available), which rate shall reset monthly. The Solar Term Loan included an interest-only period of 36 months through June 2023, and then repaid in equal monthly principal payments plus interest through June 1, 2025. The Company was also obligated to pay a final fee equal to $1.0 million or 2.5% of the aggregate principal amount of the Solar Term Loan, which was fully earned by Solar on the effective date of the Loan and Security Agreement with Solar. With respect to the Solar Term Loan, this final fee was due and payable on the earliest of (i) the maturity date, (ii) the acceleration of the loan balance or (iii) its full prepayment, refinancing, substitution or replacement. The Company paid in full and terminated the Solar Term Loan in August 2021.

The outstanding debt as of December 31, 2021 and 2022 was related to a term loan pursuant to the Loan and Security Agreement dated August 12, 2021 (the “Effective Date”), entered into by the Company with Silicon Valley Bank (“SVB”). Pursuant the agreement, SVB provided an aggregate principal amount of $35.0 million to the Company (the “SVB Term Loan”). The Company used the proceeds of the SVB Term Loan to repay in full and terminate the Solar Term Loan, which was accounted for as debt extinguishment in accordance with the accounting standards. The Company recognized the unamortized debt issuance costs and unaccreted value of final fee of $1.3 million and the prepayment penalty and lender fees of $0.5 million related to Solar Term Loan as a loss on debt extinguishment. The costs and fees are reflected as interest expense in the consolidated statement of operations. The total debt issuance costs of $0.1 million associated with the SVB Term Loan were recorded in the consolidated balance sheet as a direct deduction from the carrying amount of the loan, and are amortized as a component of interest expense using straight-line method over the life of the term loan. The SVB Term Loan matures (the “Maturity Date”) on either (a) August 1, 2025 or (b) August 1, 2026 dependent on the Company’s achievement of a certain financial performance milestone as of December 31, 2022, as set forth in the loan agreement. As of December 31, 2022, the Company achieved the performance milestone, therefore the Maturity Date is extended to August 1, 2026. The Company accounted for this change in Maturity Date as a debt modification, and accordingly, the unamortized discount and debt issuance costs associated with the SVB Term Loan are being amortized to interest expense using straight-line method over the remaining term of the loan through August 1, 2026. The extension of the Maturity Date did not have a material impact on the effective interest rates immediately before and after the debt modification.

Interest on the SVB Term Loan is payable monthly at an annual rate set at the greater of (a) 5.75% and (b) prime rate as published in the Wall Street Journal plus 2.5%. Commencing on September 1, 2023, the Company will be required to make monthly principal amortization payments. The Company may elect to prepay the SVB Term Loan prior to the Maturity Date subject to a prepayment fee equal to 1% if the prepayment occurs prior to the second anniversary of the Effective Date and 0% if the prepayment occurs on or at any time after the second anniversary of the Effective Date. The SVB Term Loan is secured by substantially all the Company's assets other than the Company's intellectual property. The Company is also obligated to pay a final payment equal to $0.7 million or 2% of the aggregate principal amount of the SVB Term Loan, which is considered fully earned by SVB on the effective date of the Loan and Security Agreement with SVB. This final payment shall be due and payable on the earliest of (i) the maturity date, (ii) the full repayment of the loan, (iii) permitted prepayment and mandatory prepayment upon an acceleration as

specified in the agreement or (iv) the termination of the agreement. The final payment is included within the long-term borrowings and is accreted to interest expense using straight-line method over the life of the term loan.

The effective interest rate related to the SVB Term Loan was 7.8% and 6.3% for the years ended December 31, 2022 and 2021, respectively. The effective interest rate related to the Solar Term Loan (excluding the write-down of unamortized debt issuance costs and prepayment penalty related to the Solar Term Loan) was 10.3% for the year ended December 31, 2021.

The table below summarizes the future principal and final fee payments under the SVB Term Loan as of December 31, 2022:

Year ending December 31,	(in thousands)
2023	$ 4,861
2024	11,667
2025	11,667
2026	7,505
2027	—
Total principal and final fee payments	$ 35,700

The SVB Term Loan includes affirmative and negative covenants applicable to the Company and certain of its foreign subsidiaries. The affirmative covenants include, among others, covenants requiring the Company to maintain its legal existence and governmental compliance, deliver certain financial reports, and maintain insurance coverage. The negative covenants include, among others, restrictions regarding transferring collateral, pledging the Company's intellectual property to other parties, engaging in mergers or acquisitions, paying dividends or making other distributions, incurring indebtedness, transacting with affiliates, and entering into certain investments, in each case subject to certain exceptions. As of December 31, 2022, the Company was in compliance with all debt covenants.

In January 2023, the Company's outstanding amount under the SVB Term Loan was refinanced on a long-term basis and is accordingly classified as term note, non-current as of December 31, 2022. See Note 15 for a discussion of the Company's full repayment and termination of the SVB term loan and entry into a new term loan and revolving credit facility.

CARES Act

On March 27, 2020, the U.S. federal government enacted the “Coronavirus Aid, Relief and Economic Security (CARES) Act,” which, among other things, allowed employers to defer the deposit and payment of an employer's share of social security taxes through December 31, 2020. As of December 31, 2022, the Company had paid the deferred taxes and had no remaining liability. As of December 31, 2021, the Company recorded a liability of $0.5 million related to the deferral of the taxes that was included in accrued liabilities in the consolidated balance sheet.

8. Warrants

The table below summarizes common stock warrants issued and outstanding at December 31, 2022 and 2021:

Date			Number of Shares Underlying Warrants	Price per Share	Fair Value (in thousands)	
Issuance	Expiration					
3/1/2017	3/1/2027	[a]	1,388	$5.94	$ 5	[b]
7/22/2013	7/22/2023	[a]	32,983	$9.10	122	[b]
11/26/2014	11/26/2024	[a]	6,680	$16.47	49	[b]
10/20/2015	10/20/2025	[a]	41,650	$16.47	396	[c]
11/9/2015	11/9/2025	[a]	25,709	$16.47	244	[c]
12/22/2016	12/22/2026	[a]	9,712	$10.03	45	[c]
			118,122		$ 861	

[a] Common stock warrants will remain outstanding until the earlier of the expiration date or the date exercised by the holder.

[b] Fair value at the date of issuance.

[c] Fair value at the date of conversion from redeemable convertible preferred stock to common stock warrants in conjunction with the IPO on October 16, 2018.

9. Common and Preferred Stock

The Company's certificate of incorporate as amended and restated in October 2018, authorizes the Company to issue 100,000,000 shares of common stock and 5,000,000 shares of preferred stock, each having a par value of $0.0001. Common stock issued and outstanding as of December 31, 2022 and 2021 were 34,731,577 shares and 33,674,085 shares, respectively. As of December 31, 2022 and 2021, there was no preferred stock issued and outstanding.

The holders of common stock are entitled to receive dividends whenever funds are legally available, as, when, and if declared by the Board of Directors. There have been no dividends declared to date.

10. Stock-Based Compensation

2008 Stock Option Plan and 2018 Equity Incentive Plan

In April 2008, the Company adopted the 2008 Stock Option Plan (the "2008 SOP"), as amended, under which the Board of Directors may issue incentive and non-qualified stock options to employees, directors and consultants. In October 2018, the Company adopted the 2018 Equity Incentive Plan (the "2018 EIP"), which serves as the successor to the 2008 SOP, under which the Board of Directors may issue incentive and non-qualified stock options, RSUs and PSUs to employees, directors and consultants. No new options have been granted under the 2008 SOP since August 2018. Outstanding options under the 2008 SOP continue to be subject to the terms and conditions of that plan.

The number of shares of common stock reserved for issuance under the 2018 EIP will automatically increase on January 1 of each year, beginning January 1, 2019, and continuing through and including January 1, 2028, by 5% of the total number of shares of the Company's capital stock outstanding on December 31 of the preceding calendar year, or a lesser number of shares determined by the Company's Board of Directors. As of December 31, 2022, a total of 4,029,313 shares of common stock are available for future grants under the 2018 EIP. On January 1, 2023, the total number of shares of common stock reserved for issuance under the 2018 EIP automatically increased by 1,736,578 shares.

The Board of Directors has the authority to determine to whom options will be granted, the number of shares, the term and the exercise price. If an individual owns stock representing more than 10% of the outstanding shares, the price of each share shall be at least 110% of the fair market value, as determined by the Board of Directors. The exercise price of an incentive stock option and a non-qualified stock option shall not be less than 100% and 85%, respectively, of the fair market value on the date of grant.

Options granted have a term of 10 years, except, options granted to individuals holding more than 10% of the outstanding shares have a term of five years. Options generally vest over a four-year period. RSUs granted under the 2018 EIP generally vest over two to four years based upon continued services and are settled at vesting in shares of the Company's common stock.

Stock Options

The following table summarizes stock option activity for the years ended December 31, 2022 and 2021:

	Options Outstanding			
	Number of Shares	Weighted-Average Exercise Price	Weighted-Average Contractual Remaining Life (Years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2020	2,405,957	$8.54		
Exercised	(369,375)	$6.94		
Canceled and forfeited	(27,069)	$15.85		
Outstanding as of December 31, 2021	2,009,513	$8.73		
Exercised	(80,571)	$4.70		
Canceled and forfeited	(25,601)	$15.05		
Outstanding as of December 31, 2022	1,903,341	$8.82	3.92	$ 12,919
Options vested and exercisable as of December 31, 2022	1,892,990	$8.75	3.91	$ 12,919
Options vested and expected to vest as of December 31, 2022	1,901,995	$8.81	3.94	$ 12,919

The aggregate intrinsic value of options exercised during the years ended December 31, 2022 and 2021 amounted to $1.0 million and $8.1 million, respectively, representing the difference between the fair value of the Company's common stock at the date of exercise and the exercise price paid. The aggregate intrinsic values of options outstanding, options vested and exercisable, and options vested and expected to vest as of December 31, 2022 represents the difference between the exercise price and the closing price of the Company's common stock on the last trading day of the year.

Outstanding options and exercisable options information by range of exercise prices as of December 31, 2022 was as follows:

			Options Outstanding			Options Vested and Exercisable	
Exercise Price			Number of Shares	Average Remaining Contractual Life (Years)	Weighted-Average Exercise Price	Number of Shares	Weighted-Average Exercise Price
$3.24	-	$3.69	378,748	1.52	$3.40	378,748	$3.40
$3.70	-	$4.41	490,008	2.99	$4.30	490,008	$4.30
$4.42	-	$5.31	407,247	4.34	$4.67	407,180	$4.67
$5.32	-	$20.51	233,794	5.45	$12.06	232,013	$12.01
$20.52	-	$22.00	393,544	6.04	$22.00	385,041	$22.00
			1,903,341	3.91	$8.82	1,892,990	$8.75

There were no stock options granted during the years ended December 31, 2022 and 2021.

As of December 31, 2022, there was approximately $22,000 of unrecognized compensation cost related to stock options granted. These costs are expected to be recognized over a period of approximately 0.5 years.

Restricted Stock Units

Restricted stock units ("RSUs") are share awards that entitle the holder to receive freely tradable shares of the Company's common stock upon vesting. RSUs generally vest over two to four years based upon continued services and are settled at vesting in shares of the Company's common stock. The grant date fair value of the RSUs is equal to the closing price of the Company's common stock on the grant date.

In January 2022, the Company granted performance-based restricted stock unit awards subject to market and service vesting conditions to certain executive officers under SI-BONE's 2018 Equity Incentive Plan ("PSUs"). The shares subject to the PSUs vest over a three-year performance period beginning January 1, 2022 and ending December 31, 2024. The actual number of PSUs that will vest in each measurement period will be determined by the Compensation Committee based on the Company's total shareholder return ("TSR") relative to the TSR of the Median Peer Companies (as defined in the award agreement). The grant date fair value of each stock award with a market condition was determined using the Monte Carlo valuation model. The table below summarizes the assumptions used to estimate the grant date fair value of the PSUs granted:

	Year Ended December 31, 2022		
Expected volatility of common stock	48.9%	to	58.7%
Expected volatility of peer companies	24.2%	to	152.5%
Correlation coefficient of peer companies	(0.13)	to	1.00
Risk-free interest rate	0.4%	to	1.2%
Dividend yield	—%	to	1.0%

The following table summarizes RSU and PSU activity for the years ended December 31, 2022 and 2021:

	RSUs		PSUs	
	Number of Shares	Weighted-Average Grant Date Fair Value	Number of Shares	Weighted-Average Grant Date Fair Value
Outstanding as of December 31, 2020	1,165,295	$20.07	—	$—
Granted	1,187,143	$28.46	—	$—
Vested	(574,195)	$21.76	—	$—
Canceled and forfeited	(211,721)	$24.76	—	$—
Outstanding as of December 31, 2021	1,566,522	$25.17	—	$—
Granted	1,264,835	$20.66	155,596	$19.50
Vested	(806,204)	$24.03	—	$—
Canceled and forfeited	(230,225)	$23.46	—	$—
Outstanding as of December 31, 2022	1,794,928	$22.72	155,596	$19.50

As of December 31, 2022, the unrecognized compensation cost related to the RSUs was $33.2 million, which is expected to be recognized over a period of approximately 2.5 years. As of December 31, 2022, the unrecognized compensation cost related to the PSUs was $1.5 million, which is expected to be recognized over a period of approximately 2.0 years.

Employee Stock Purchase Plan

The Company’s 2018 Employee Stock Purchase Plan (the “ESPP”) allows eligible employees to purchase shares of the Company's common stock through payroll deductions at the price equal to 85% of the lesser of the fair market value of the stock as of the first date or the ending date of each six month offering period. The offering period generally commences in May and November. On March 26, 2020, the Company's Compensation Committee approved the amendment of the terms of future offerings under the ESPP which, among other things, increased the maximum number of shares that may be purchased on any single purchase date and provided for automatic enrollment in a new offering.

As of December 31, 2022, a total of 1,050,179 shares of common stock are available for future grants under the ESPP. On January 1, 2023, the total number of shares of common stock reserved for issuance under the ESPP Plan increased by 347,315 shares.

The fair value of the ESPP shares is estimated using the Black-Scholes option pricing model, which is being amortized over the requisite service period. The Company issued 170,717 shares and 147,295 shares under the ESPP during the years ended December 31, 2022 and 2021, respectively, representing $1.8 million and $2.3 million in employee contributions. For each of the years ended December 31, 2022 and 2021, total accumulated ESPP related employee payroll deductions amounted to $0.3 million, which were included within accrued compensation and related expenses in the consolidated balance sheets. For the years ended December 31, 2022 and 2021, the Company recognized $0.7 million and $0.8 million, respectively, of stock-based compensation expense related to ESPP. As of December 31, 2022, the unrecognized compensation cost for the ESPP was $0.5 million.

The Company estimated the fair value of ESPP purchase rights during the offering period using a Black-Scholes option pricing model with the following assumptions:

	Year Ended December 31,					
	2022			2021		
Expected term (years)	0.5			0.5		
Expected volatility	49.5%	to	62.1%	48.8%	to	49.5%
Risk-free interest rate	0.07%	to	1.54%	0.04%	to	0.07%
Dividend yield	—%			—%		

Stock-Based Compensation

The following table sets forth stock-based compensation expense recognized for the periods presented:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Cost of goods sold	$ 484	$ 530
Sales and marketing	11,006	8,448
Research and development	2,637	1,710
General and administrative	8,934	6,178
	$ 23,061	$ 16,866

11. Employee Benefit Plan

The Company sponsors a 401(k) plan covering all employees. Contributions made by the Company are discretionary and are determined annually by the Board of Directors. Effective January 1, 2019, the Company made a discretionary matching contribution equal to dollar for dollar employee contribution, up to 3% eligible compensation of the employee, with a maximum annual contribution from the Company of one thousand dollars per employee. Further, in order for an employee to receive the matching contribution, the employee must be at least 21 years old, work at least 1,000 hours per year, and must be employed by the Company at the beginning through the end of the year.

12. Net Loss Per Share of Common Stock

The following table summarizes the computation of basic and diluted net loss per share:

	Year Ended December 31,	
	2022	2021
	(in thousands, except share and per share data)	
Net loss	$ (61,256)	$ (56,572)
Weighted-average shares used to compute basic and diluted net loss per share	34,201,824	33,145,930
Net loss per share, basic and diluted	$ (1.79)	$ (1.71)

Because the Company has reported a net loss in all periods presented, outstanding stock options, restricted stock units, ESPP purchase rights and common stock warrants are anti-dilutive and therefore diluted net loss per common share is the same as basic net loss per common share for the periods presented. The following anti-dilutive common stock equivalents were excluded from the computation of diluted net loss per share for the periods presented:

	Year Ended December 31,	
	2022	2021
Stock options	1,903,341	2,009,513
Restricted stock units	1,950,524	1,566,522
ESPP purchase rights	134,226	61,264
Common stock warrants	118,122	118,122
	4,106,213	3,755,421

13. Income Taxes

The components of the Company’s loss before income taxes are as follows:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Domestic	$ (61,396)	$ (57,035)
Foreign	140	463
Loss before income taxes	$ (61,256)	$ (56,572)

There was no provision for income taxes recorded for the years ended December 31, 2022 and 2021. The Company continues to maintain a full valuation allowance against its net deferred tax assets due to the uncertainty surrounding realization of such assets. The Company periodically evaluates the realizability of its net deferred tax assets based on the expected realization and is dependent on the Company's ability to generate sufficient future taxable income during periods prior to the expiration of tax attributes to fully utilize these assets.

The components of deferred income taxes are as follows:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Federal	$ 13,085	$ 12,994
State	2,997	1,878
Foreign	(92)	461
Total deferred income taxes	15,990	15,333
Change in deferred tax valuation allowance	(15,990)	(15,333)
Net deferred income tax	$ —	$ —

Income tax expense differs from the amount computed by applying the statutory federal income tax rate due to the following:

	Year Ended December 31,	
	2022	2021
Tax at statutory federal rate	(21.0)%	(21.0)%
State tax, net of federal benefit	(4.9)%	(3.3)%
Tax credits	(0.7)%	(0.8)%
Change in deferred tax valuation allowance	26.1 %	27.1 %
Stock compensation	0.3 %	(1.7)%
Foreign rate differences	0.1 %	0.1 %
Other	0.1 %	(0.4)%
Total income tax expense	— %	— %

The tax effects of temporary differences and carryforwards that give rise to significant portions of the deferred tax assets are presented below:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Net operating loss carryforwards	$ 77,057	$ 66,015
Research and development credits	4,464	3,837
Accruals and reserves	2,616	1,994
Interest limitation	4,447	3,995
Depreciation and amortization	263	152
Stock compensation	3,378	2,728
Operating lease liabilities	1,079	1,376
Capitalized research and development	2,486	—
Total deferred tax assets	95,790	80,097
Operating lease right-of-use assets	(1,014)	(1,311)
Total deferred tax liabilities	(1,014)	(1,311)
Less: Valuation allowance	(94,776)	(78,786)
Total deferred tax asset, net of valuation allowance	$ —	$ —

The following table summarizes changes in the valuation allowance for the years ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
	(in thousands)	
Beginning balance	$ 78,786	$ 63,453
Net changes during the period	15,990	15,333
Ending balance	$ 94,776	$ 78,786

As of December 31, 2022, the Company had net operating loss (“NOL”) carryforwards of approximately $298.6 million and $238.7 million available to reduce future taxable income, if any, for federal and state income tax purposes, respectively. If not utilized, the Company’s federal NOL carryforward begins to expire in 2029, and the state NOL carryforward began to expire in 2022.

As of December 31, 2022, the Company had credit carryforwards of approximately $3.8 million and $3.3 million available to reduce future taxable income, if any, for both federal and state income tax purposes, respectively. The federal credits begin to expire in 2029, and the state credits have no expiration date.

The Company updated its Section 382 ownership change analysis through December 31, 2020 and determined that the last ownership change was in February 2020 due to the follow-offering. The analysis concluded that no additional NOL carryforwards will expire due to the Section 382 limitation from the ownership change for both federal and state tax purposes. The Company maintains the reduction of $1.4 million of its NOL carryforwards from the previous ownership change. The Company has reviewed changes in the outstanding number of shares and equity transactions for the period January 1, 2021 through December 31, 2022 to determine if an additional ownership change occurred for Section 382 purposes. The Company reasonably believes no additional ownership change occurred in the current year, however, noted there has been a material increase to the equity shift. The Company will continually assess the need to update its Section 382 ownership change analysis. An ownership change in the future could materially limit the Company’s ability to utilize its NOL carryforwards and other tax attributes.

On February 9, 2022, Governor Gavin Newsom signed California Senate Bill 113 (SB 113) into law. The legislation contains important California tax law changes, including reinstatement of business tax credits and net NOL deductions limited by California Assembly Bill 85 which suspended the net operating loss deduction for certain tax payers from 2020 to 2022. The new tax law did not impact the Company’s tax provision due to its taxable loss position in the current year.

In August 2022, the Inflation Reduction Act of 2022 ("IRA") was signed into law in the United States. The IRA created a new corporate alternative minimum tax of 15% on adjusted financial statement income and an excise tax of 1% of the value of certain stock repurchases. The provisions of the IRA will be effective for periods beginning after December 31, 2022. The enactment of the IRA did not result in any material adjustments to the Company's income tax provisions or net deferred tax assets as of December 31, 2022.

In December 2017, the Tax Cuts and Jobs Act (TCJA) was signed into law, significantly reforming the Internal Revenue Code of 1986, as amended (IRC). Beginning January 1, 2022, the TCJA eliminated the option to deduct research and development expenditures in the current year and requires taxpayers to capitalize such expenses pursuant to Internal Revenue Code (“IRC”) Section 174. The capitalized expenses are amortized over a 5-year period for domestic expenses and a 15-year period for foreign expenses. As a result of this provision of the TCJA, deferred tax assets related to capitalized research expenses increased by $2.5 million.

The Company accounts for the uncertainty in income taxes by utilizing a comprehensive model for the recognition, measurement, presentation and disclosure in financial statements of any uncertain tax positions that have been taken or are expected to be taken on an income tax return. The changes in the Company’s uncertain income tax positions for the years ended December 31, 2022 and 2021 consisted of the following:

	Year ended December 31,	
	2022	2021
	(in thousands)	
Balance at beginning of the year	$ 2,655	$ 1,513
Increases related to tax positions taken prior to current year	(12)	$ 817
Increases related to current year's tax positions	301	325
Balance at end of the year	$ 2,944	$ 2,655

The Company has elected to recognize interest and penalties related to uncertain tax positions as a component of income tax expense. The Company has no accrued interest related to unrecognized tax benefits as of December 31, 2022 and 2021. None of the Company's unrecognized tax benefits that, if recognized, would affect its effective tax rates for the years ended December 31, 2022 and 2021. The Company does not anticipate the total amounts of unrecognized tax benefits will significantly increase or decrease in the next 12 months.

The Company currently has no federal, state or foreign tax examinations in progress nor has it had any federal or state examinations since inception. As a result of the Company's net operating loss carry forwards, all of its tax years are subject to federal and state tax examinations.

14. Related Party Transactions

On February 24, 2020, the Company entered into a joint development agreement (the “Development Agreement”) with SeaSpine Orthopedics Corporation (“SeaSpine”), which recently merged with Orthofix Medical, Inc., to develop a next generation device for sacropelvic fixation. Mr. Keith Valentine, who serves as the President, Chief Executive Officer and a member of the board of directors of SeaSpine, also serves as a member of the Company's Board of Directors since August 2015. On April 27, 2021, Addendum No.1 to the Development Agreement was entered into by and between the Company and SeaSpine to extend certain obligations as described under the Development Agreement to a consultant of the Company.

Pursuant to the development plan, SeaSpine shall use reasonable efforts to assist in the development of the potential product offering, including licensing certain existing intellectual property to be incorporated into such product. Under the terms of the Development Agreement, the Company agreed to make monthly payments to SeaSpine to reimburse for full time resources employed by SeaSpine responsible to conduct the development activities. For the years ended December 31, 2022 and 2021, the Company expensed $38,725 and $29,000, respectively, of reimbursement charges from SeaSpine. The reimbursement charges were recorded within research and development expense in the consolidated statement of operations.

Certain intellectual property developed pursuant to the project plan will be owned by the Company, certain intellectual property developed pursuant to the project plan will be owned by SeaSpine, and other intellectual property developed pursuant to the project plan will be jointly owned by SeaSpine and the Company. The Company also agreed to provide SeaSpine a royalty-free, worldwide, perpetual, non-exclusive license of certain of the Company's intellectual property incorporated into the product to be developed. The Company also agreed to pay SeaSpine a product royalty, in an amount specified in the Development Agreement, for each resulting product sold for a period of 10 years beginning on the initial market launch. The term of the Development Agreement shall continue until the expiration of all royalty terms, unless earlier terminated by either party, as provided for by the Development Agreement. The Company recorded $0.1 million of royalty for the year ended December 31, 2022. No royalties were recorded in fiscal year 2021.

The outstanding liability to SeaSpine as of December 31, 2022 was $0.1 million and was recorded within accounts payable and accrued liabilities and other in the consolidated balance sheet. There was no outstanding liability to SeaSpine as of December 31, 2021.

15. Subsequent Events

On January 6, 2023, the Company entered into a First Amendment to Loan and Security Agreement (the “Amendment”) with SVB, which amends the Company's SVB Term Loan pursuant to which the Company had a term loan facility in an aggregate principal amount of $35.0 million (the “Original Loan Agreement” and with the Amendment, collectively the “Amended Loan Agreement”). Upon entry into the Amended Loan Agreement, the Company borrowed $36.0 million pursuant to a term loan (the "Term Loan"), which was substantially used to repay in full the $35.0 million term loan facility outstanding under the Original Loan Agreement and secured a revolving credit facility in an aggregate principal amount of up to $15.0 million (the "Revolver"). The Amended Loan Agreement also includes an uncommitted accordion term loan in an aggregate principal amount of up to $15.0 million, which accordion may be approved by SVB, solely in its discretion, upon the Company’s request.

The Term Loan matures on December 1, 2027 (the “Term Loan Maturity Date”). Interest on the Term Loan will be payable monthly at a floating annual rate set at the greater of the prime rate as published in the Wall Street Journal plus 0.5% or 6.75%. Commencing on July 1, 2025, the Company will be required to make monthly principal Term Loan amortization payments. A final fee payment of 2% of the original principal amount of the Term Loan is due upon the earlier of the Term Loan Maturity Date, termination, acceleration by SVB following an event of default, or prepayment of the Term Loan. The Company may elect to prepay the Term Loan in whole prior to the Term Loan Maturity Date subject to a prepayment fee equal to 2% of the principal amount of the Term Loan prepaid at such time. No prepayment fee would be due if the Term Loan is refinanced by SVB.

Pursuant to the terms of the Amended Loan Agreement, revolving loans may be borrowed, repaid and reborrowed until the maturity date, which will be July 6, 2025 (the "Revolver Maturity Date"). Borrowings under the Revolver are based on 80% of eligible domestic accounts receivable borrowing base. Interest on the outstanding balance of the Revolver will be payable monthly at a floating annual rate set at the greater of the prime rate as published in the Wall Street Journal or 6.25%. Interest on borrowings is due monthly and any principal balance is due on the Revolver Maturity Date, provided that when Revolver Advances are outstanding, in the event the Company does not maintain an adjusted quick ratio of at least 1.5 to 1.0, then falling below such threshold will allow SVB to apply accounts receivable collections to outstanding Revolver borrowings. The Company will pay a total commitment fee of $187,500 on account of the Revolver payable in installments, but fully earned at close. The Company will also be required to pay a fee of $150,000 if it terminates the Amended Loan Agreement or Revolver prior to Revolver Maturity Date. No termination fee would be due if the Revolver is replaced with a new facility with SVB. No amounts are outstanding under the Revolver as of the date of this Report.

Supplementary Data

Selected Quarterly Consolidated Financial Data (Unaudited)

Pursuant to the amendments to Item 302 of Regulation S-K, since we do not have any material retrospective change to the statements of comprehensive income for any of the quarters within the two most recent fiscal years either individually or in the aggregate, we are not required to disclose the quarterly financial data.

Schedule II - Valuation and Qualifying Accounts

All schedules are omitted because they are not applicable, or the required information is shown in the financial statements or notes thereto.

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Securities and Exchange Act of 1934 is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

The effectiveness of any system of internal control over financial reporting, including ours, is subject to inherent limitations, including the exercise of judgment in designing, implementing, operating, and evaluating the controls and procedures, and the inability to eliminate misconduct completely. Accordingly, any system of internal control over financial reporting, including ours, no matter how well designed and operated, can only provide reasonable, not absolute assurances. In addition, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. We intend to continue to monitor and upgrade our internal controls as necessary or appropriate for our business but cannot assure you that such improvements will be sufficient to provide us with effective internal control over financial reporting.

As of December 31, 2022, our management, with the participation of our Chief Executive Officer ("CEO") and our Chief Financial Officer ("CFO"), have evaluated our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended). Based on that evaluation, our CEO and our CFO have concluded that, as of December 31, 2022, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act). Management conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2022 based on the criteria set forth in "Internal Control-Integrated Framework" (2013 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this assessment, management has concluded that our internal control over financial reporting was effective as of December 31, 2022 based on those criteria. This Annual Report does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by our independent registered public accounting firm because as a "small reporting company" we are exempt from Section 404(b) of the Sarbanes-Oxley Act of 2002.

Changes in Internal Control Over Financial Reporting.

There have been no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not applicable.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Information required by this item will be contained in our definitive proxy statement to be filed with the Securities and Exchange Commission on Schedule 14A in connection with our 2023 Annual Meeting of Stockholders, or the 2023 Proxy Statement, which will be filed not later than 120 days after the end of our fiscal year ended December 31, 2022, under the headings "Management," "Proposal 1 - Election of Directors," "Information Regarding the Board of Directors and Corporate Governance", and, if applicable, "Delinquent Section 16(a) Reports", and is incorporated herein by reference.

We have adopted a Code of Business Conduct and Ethics that applies to our officers, directors and employees which is available on our website at www.si-bone.com. The Code of Business Conduct and Ethics is intended to qualify as a "code of ethics" within the meaning of Section 406 of the Sarbanes-Oxley Act of 2002 and Item 406 of Regulation S-K. In addition, we intend to promptly disclose on our website in the future (1) the nature of any substantive amendment to our Code of Business Conduct and Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions and (2) the nature of any waiver, including an implicit waiver, from a provision of our code of ethics that is granted to one of these specified officers, the name of such person who is granted the waiver and the date of the waiver.

Item 11. Executive Compensation.

The information required by this item regarding executive compensation will be incorporated by reference to the information set forth in the sections titled "Executive Compensation" and "Compensation of Non-Employee Board Members" in our 2023 Proxy Statement.

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

The information required by this item regarding security ownership of certain beneficial owners and management will be incorporated by reference to the information set forth in the sections titled "Security Ownership of Certain Beneficial Owners and Management" and "Securities Authorized for Issuance Under Equity Compensation Plans" in our 2023 Proxy Statement.

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

The information required by this item regarding certain relationships and related transactions and director independence will be incorporated by reference to the information set forth in the sections titled "Certain Relationships and Related Party Transactions" and "Information Regarding the Board of Directors and Corporate Governance", respectively, in our 2023 Proxy Statement.

Item 14. Principal Accounting Fees and Services.

The information required by this item regarding principal accountant fees and services will be incorporated by reference to the information set forth in the section titled "Principal Accountant Fees and Services" in our 2023 Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) The following documents are filed as part of this report:

1. Financial Statements

Information in response to this Item is included in Part II, Item 8 of this Annual Report on Form 10-K.

2. Financial Statement Schedules

All schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.

3. Exhibits

The following exhibits, as required by Item 601 of Regulation S-K are attached or incorporated by reference as stated below.

EXHIBIT INDEX

Exhibit Number	Description	Incorporation By Reference			
		Form	SEC File No.	Exhibit	Filing Date
3.1	Amended and Restated Certificate of Incorporation.	8-K	001-38701	3.1	10/19/2018
3.2	Amended and Restated Bylaws.	S-1/A	333-227445	3.4	10/5/2018
4.1	Form of Common Stock Certificate of the Company.	S-1/A	333-227445	4.1	10/5/2018
4.2	Reference is made to Exhibits 3.1 and 3.2.				
4.3	Description of SI-BONE, Inc. Common Stock	10-Q	001-38701	4.3	5/5/2020
10.1+	Form of Indemnity Agreement between the Registrant and each of its directors and executive officers.	S-1	333-227445	10.1	9/20/2018
10.2+	2008 Stock Plan and forms of agreements thereunder.	S-1/A	333-227445	10.2	10/5/2018
10.3+	2018 Equity Incentive Plan.	S-1/A	333-227445	10.3	10/5/2018
10.4+	Forms of Stock Option Grant Notice, Option Agreement and Notice of Exercise under the 2018 Equity Incentive Plan.	S-1/A	333-227445	10.4	10/5/2018
10.5+	Forms of Restricted Stock Unit Grant Notice and Restricted Stock Unit Award Agreement under the 2018 Equity Incentive Plan.	10-Q	001-38701	10.1	11/8/2022
10.6+	2018 Employee Stock Purchase Plan.	S-1/A	333-227445	10.6	10/5/2018
10.7#	Manufacturing, Quality and Supply Agreement, dated January 31, 2017, between the Registrant and rms Company and Addendum No. 1 dated July 7, 2017.	S-1	333-227445	10.6	9/20/2018
10.8+	Offer Letter Agreement, dated December 15, 2009, between the Registrant and Jeffrey W. Dunn.	S-1	333-227445	10.7	9/20/2018
10.9+	Offer Letter Agreement, dated February 19, 2015, between the Registrant and Michael A. Pisetsky	S-1	333-227445	10.8	9/20/2018
10.10+	Letter Regarding Change to Employment Terms, dated June 20, 2016, between the Registrant and Michael A. Pisetsky.	S-1	333-227445	10.9	9/20/2018
10.11+	Offer Letter Agreement, dated June 19, 2016, between the Registrant and Anthony J. Recupero.	S-1	333-227445	10.18	9/20/2018
10.12	Amended and Restated Investors' Rights Agreement, dated June 2, 2016, by and among the Registrant and the parties thereto, as amended on October 4, 2018.	S-1/A	333-227445	10.21	10/5/2018

10.13	Addendum No. 2 to Manufacturing, Quality and Supply Agreement, dated July 1, 2020, between the Registrant and rsm Company.	10-K	001-38701	10.16	3/10/2021
10.14#	Amended and Restated Manufacturing, Quality and Supply Agreement, dated June 11, 2021, between the Registrant and rms Company	10-Q	001-38701	10.4	8/4/2021
10.15+	Form of Restricted Stock Unit Grant Notice and Award Agreement.	S-1	333-227445	10.30	9/20/2018
10.16+	Amendment to Restricted Stock Units of Laura Francis	10-Q	001-38701	10.2	11/12/2019
10.17+	Amendment to Offer Letter with Jeffrey Dunn	8-K	001-38701	10.1	1/7/2021
10.18+	2022 Non-Employee Directors' Compensation Policy				
10.19	Loan and Security Agreement, dated May 29, 2020, between SI-BONE, Inc. and Solar Capital Ltd., as collateral agent, and the lenders from time to time party thereto.	10-Q	001-38701	10.1	8/4/2020
10.20+	SI-BONE, Inc. Severance Benefit Plan and Form of Participation Agreement	10-K	001-38701	10.24	3/10/2021
10.21+	Offer Letter Agreement, dated April 19, 2021, between the Registrant and Helen Loh	10-Q	001-38701	10.2	5/4/2021
10.22+	Offer Letter Agreement, dated March 4, 2021, between the Registrant and Mika Nishimura	10-Q	001-38701	10.3	5/4/2021
10.23	Office Lease Agreement, dated February 2, 2018, between the Registrant and Bixby SPE Finance 11, LLC, as amended on April 16, 2018.	S-1	333-227445	10.21	9/20/2018
10.24	Loan and Security Agreement, dated August 12, 2021, between SI-BONE, Inc. and Silicon Valley Bank	10-Q	001-38701	10.1	11/9/2021
10.25+	Second Amendment to the Offer Letter Agreement and Severance Plan Participation Agreement with Jeffery Dunn	10-Q	001-38701	10.2	11/9/2021
10.26+	Offer Letter Agreement, dated April 20, 2021, between the Registrant and Anshul Maheshwari	8-K	001-38701	10.1	4/20/2021
10.27+	Amended and Restated Participation Agreement dated April 20, 2021, between the Registrant and Laura Francis	8-K	001-38701	10.2	4/20/2021
10.28+	Form of Performance-Based Restricted Stock Unit Agreement	10-Q	001-38701	10.2	11/8/2022
10.29*#	First Amendment to Loan and Security Agreement, dated January 6, 2023 between SI-BONE, Inc. and Silicon Valley Bank				
10.30	Office Lease Agreement, dated February 2, 2018, between the Registrant and Bixby SPE Finance 11, LLC, as amended on April 16, 2018.	S-1	333-227445	10.21	9/20/2018
10.31+	Performance Stock Unit Grants to CEO and CFO	8-K	001-38701	Item 5.02	1/10/2022
21.1*	List of Subsidiaries of Registrant				
23.1*	Consent of PricewaterhouseCoopers, Independent Registered Public Accounting Firm				
24.1*	Power of Attorney (contained in the signature page of this report)				
31.1*	Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
31.2*	Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				
32.1**	Certification of Principal Executive Officer and Principal Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				

101.INS*	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith.

** Furnished herewith. Exhibit 32.1 is being furnished and shall not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liability of that section, nor shall such exhibit be deemed to be incorporated by reference in any registration statement or other document filed under the Securities Act of 1933, as amended, or the Exchange Act, except as otherwise specifically stated in such filing.

\+ Indicates a management contract or compensatory plan.

\# Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(b) We have filed, or incorporated into this Annual Report on Form 10-K by reference, the exhibits listed on the Exhibit Index immediately above.

(c) See Item 15(a)2 above.

Item 16. Form 10-K Summary.

Not provided.

SIGNATURES

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

SI-BONE, Inc.

Date: March 2, 2023

By: /s/ Laura A. Francis
Laura A. Francis
Chief Executive Officer
(Duly Authorized Officer and Principal Executive Officer)

SI-BONE, Inc.

Date: March 2, 2023

By: /s/ Anshul Maheshwari
Anshul Maheshwari
Chief Financial Officer
(Principal Financial and Accounting Officer)

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Laura A. Francis, and Michael A. Pisetsky, and each of them, as his or her true and lawful attorneys-in-fact and agents, each with the full power of substitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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

Signature	Title	Date
/s/ Laura A. Francis Laura A. Francis	Chief Executive Officer and Director (*Duly Authorized Officer and Principal Executive Officer*)	March 2, 2023
/s/ Anshul Maheshwari Anshul Maheshwari	Chief Financial Officer *(Principal Financial and Accounting Officer)*	March 2, 2023
/s/ Timothy E. Davis, Jr. Timothy E. Davis, Jr.	Lead Independent Director, Director	March 2, 2023
/s/ Jeffrey W. Dunn Jeffrey W. Dunn	Executive Chairman, Director	March 2, 2023
/s/ John G. Freund, M.D. John G. Freund, M.D.	Director	March 2, 2023
/s/ Jeryl L. Hilleman Jeryl L. Hilleman	Director	March 2, 2023
/s/ Gregory K. Hinckley Gregory K. Hinckley	Director	March 2, 2023
/s/ Helen Loh Helen Loh	Director	March 2, 2023
/s/ Mika Nishimura Mika Nishimura	Director	March 2, 2023
/s/ Keith C. Valentine Keith C. Valentine	Director	March 2, 2023

Exhibit 10.18

SI-BONE, Inc.
2022 Non-Employee Directors' Compensation Policy
Approved by the Board of Directors
December 1, 2022

Each member of the Board of Directors (the "***Board***") who is not also serving as an employee of SI-BONE, Inc. (the "***Company***") or any of its subsidiaries (each such member, an "***Eligible Director***") will receive the compensation described in this Non-Employee Directors' Compensation Policy (the "***Director Compensation Policy***") for his or her Board service. The Director Compensation Policy may be amended at any time in the sole discretion of the Board or the Compensation Committee of the Board.

Annual Cash Compensation

Each Eligible Director shall receive the cash compensation described below. The annual cash compensation amount set forth below is payable in equal quarterly installments, payable in arrears on the last day of each fiscal quarter in which the service occurred. If an Eligible Director joins the Board or a committee of the Board ("***Committee***") at a time other than effective as of the first day of a fiscal quarter, each annual retainer set forth below will be pro-rated based on days served in the applicable fiscal year, with the pro-rated amount paid for the first fiscal quarter in which the Eligible Director provides the service, and regular full quarterly payments thereafter. All annual cash retainer fees are vested upon payment.

1. Annual Board Service Retainer: $45,000 payable in cash ("***Annual Retainer***")

2. Annual Committee Member / Chair Service Retainer:
    a. Member / Chairperson of the Audit Committee: $10,000 / $20,000
    b. Member / Chairperson of the Compensation Committee: $7,000 / $15,000
    c. Member / Chairperson of the N&CG Committee: $5,000 / $10,000
    d. Chair of the Board: $45,000

3. Annual Lead Independent Director Service Retainer:
    a. Lead Independent Director: $5,000

Equity Compensation

The equity compensation set forth below will be granted under the SI-BONE, Inc. 2018 Equity Incentive Plan (the "***Plan***"), and will be documented on the applicable form of equity award agreement most recently approved for use by the Board (or a duly authorized committee thereof) for Eligible Directors. Any stock options granted under the Director Compensation Policy will be nonstatutory stock options, with an exercise price per share equal to 100% of the Fair Market Value (as defined in the Plan) of the underlying Common Stock on the date of grant, and a term of ten years from the date of grant (subject to earlier termination in connection with a termination of service as provided in the Plan). Any RSU grant provided for by this Director Compensation Policy that vests quarterly shall have quarterly vesting dates of March 15, June 15, September 15 and December 15 (the "***Quarterly Vesting Dates***"), and any RSU Grant that vests annually shall vest on the earlier to occur of the one-year anniversary of the date of grant or the Company's next Annual General Meeting of its stockholders.

1. Initial Share Grant: Upon first election to the Board, each Eligible Director will be granted, upon approval by the Board or Compensation Committee of the Board, restricted stock units having a value of $200,000 based on the 30-day trailing average of the Company's closing stock price (the "***Initial RSU Grant***"). The Initial RSU Grant will vest quarterly over three years beginning on the Quarterly Vesting Date that follows the date of grant, such that the Initial RSU Grant will be fully vested on the next Quarterly Vesting Date that follows the third anniversary of the Eligible Director's first election to the Board, subject to the Eligible Director's Continuous Service on each applicable vesting date. In addition, in the event of a Change in Control or a Corporate Transaction, any unvested portion of the Initial RSU

Grant will fully vest and become exercisable as of immediately prior to the effective time of such Change in Control or Corporate Transaction, subject to the Eligible Director's Continuous Service on the effective date of such transaction.

2. Additional RSU Grants: The Compensation Committee may review and approve additional equity grants to Eligible Directors on the date of each subsequent annual meeting. At the first Board meeting held following the Company's annual stockholder meeting, each incumbent Eligible Director shall receive an annual RSU grant having an approximate value of $120,000 based on the 30-day trailing average of the Company's closing stock price, which will vest approximately one year from the grant date (the "***Additional Annual RSU Grant***"), subject to the Eligible Director's Continuous Service on each applicable vesting date. In addition, in the event of a Change in Control or a Corporate Transaction, any unvested portion of the Additional Annual RSU Grant will fully vest and become exercisable as of immediately prior to the effective time of such Change in Control or Corporate Transaction, subject to the Eligible Director's Continuous Service on the effective date of such transaction. With respect to any person who first becomes an Eligible Director after the annual stockholder meeting of the preceding year, the Additional Annual RSU Grant shall be prorated based on the portion of the 12-month period prior to the annual stockholder meeting that such person served as an Eligible Director. By way of example, if an Eligible Director joins the Board on March 15 and the annual stockholder meeting is held June 15, s/he would receive an Additional Annual RSU Grant having an approximate value of $30,000 based on the 30-day trailing average of the Company's closing stock price.

Annual Pay Limit

The aggregate value of all compensation granted or paid, as applicable, to any individual for service as an Eligible Director with respect to any calendar year, including equity compensation awards granted and cash fees paid by the Company to such Eligible Director, will not exceed (i) $750,000 in total value or (ii) in the event such Eligible Director is first appointed or elected to the Board during such calendar year, $1,000,000 in total value, in each case calculating the value of any equity awards based on the grant date fair value of such equity awards for financial reporting purposes.

Philosophy

The Director Compensation Policy is designed to attract and retain experienced, talented individuals to serve on the Board. The Board anticipates that the Board, or a duly authorized committee thereof, will generally review Eligible Director compensation on an annual basis on or about the date of the Company's Annual General Meeting of its stockholders. The Director Compensation Policy, as amended from time to time, may take into account the time commitment expected of Eligible Directors, best practices and market rates in director compensation, the economic position of the Company, broader economic conditions, historical compensation structure, the advice of the compensation consultant that the Compensation Committee or the Board may retain from time to time, and the potential dilutive effect of equity awards on our stockholders.

Under the Director Compensation Policy, Eligible Directors receive cash compensation in the form of retainers to recognize their level of responsibility as well as the necessary time commitment involved in serving in a leadership role and/or on Committees. Eligible Directors also receive equity compensation because we believe that stock ownership provides an incentive to act in ways that maximize long-term stockholder value. Further, we believe that stock-based awards are essential to attracting and retaining talented Board members. When stock options are granted, these stock options will have an exercise price at least equal to the Fair Market Value of Common Stock on the date of grant, so that stock options provide a return only if the Fair Market Value appreciates over the period in which the stock option vests and remains exercisable. We believe that the vesting acceleration provided in the case of a Change in Control or other Corporate Transaction is consistent with market practices and is critical to attracting and retaining high quality directors.

EXHIBIT 10.29

CERTAIN INFORMATION IDENTIFIED BY "[***]" HAS BEEN EXCLUDED FROM THE EXHIBIT BECAUSE IT IS BOTH NOT MATERIAL AND IS THE TYPE OF INFORMATION THAT THE REGISTRANT TREATS AS PRIVATE OR CONFIDENTIAL.

FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT

This First Amendment to Loan and Security Agreement (this "**Amendment**") is entered into as of January 6, 2023, by and between (i) **SILICON VALLEY BANK**, a California corporation ("**Bank**"), and (ii) **SI-BONE, INC.**, a Delaware corporation ("**Borrower**").

RECITALS

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of August 12, 2021 (the "**Existing Loan Agreement**"; the Existing Loan Agreement, as amended, restated, amended and restated, modified, or supplemented from time to time, the "**Loan Agreement**").

B. Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement.

C. Borrower has requested that Bank amend the Loan Agreement to make certain revisions to the Loan Agreement as more fully set forth herein.

D. Bank has agreed to so amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Definitions. Capitalized terms used but not defined in this Amendment shall have the meanings given to them in the Loan Agreement.

2. Amendments to Loan Agreement.

2.1 Exhibit A attached hereto, sets forth a clean copy of the Loan Agreement as amended hereby.

2.2 Exhibit B attached hereto, shows deletions of the text in the Existing Loan Agreement pursuant to this Amendment (including, to the extent included in such Exhibit B, each Schedule or Exhibit to the Existing Loan Agreement), which are indicated by ~~struck-through text~~, and insertions of text, which are indicated by **bold, double-underlined text**.

3. Representations and Warranties. To induce Bank to enter into this Amendment, Borrower hereby represents and warrants to Bank as follows:

3.1 Immediately after giving effect to this Amendment (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which

case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

3.2 Borrower has the power and authority to execute and deliver this Amendment and to perform its obligations under the Loan Agreement, as affected by this Amendment;

3.3 The organizational documents of Borrower delivered to Bank on the Effective Date remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

3.4 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as affected by this Amendment, have been duly authorized;

3.5 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as affected by this Amendment, do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower, or applicable consents or waivers have been obtained;

3.6 The execution and delivery by Borrower of this Amendment and the performance by Borrower of its obligations under the Loan Agreement, as affected by this Amendment, do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on Borrower, except as already has been obtained or made; and

3.7 This Amendment has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.

4. Updated Perfection Certificate. Borrower has delivered an updated Perfection Certificate dated as of the date hereof in connection with this Amendment (the "**Updated Perfection Certificate**"), which Updated Perfection Certificate shall supersede in all respects that certain Perfection Certificate delivered to Bank on the Effective Date. Borrower and Bank acknowledge and agree that all references in the Loan Agreement to the "Perfection Certificate" shall hereinafter be deemed to be a reference to the Updated Perfection Certificate.

5. Integration. This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Amendment and the Loan Documents merge into this Amendment and the Loan Documents.

6. Counterparts. This Amendment may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

7. Effectiveness. As a condition precedent to the effectiveness of this Amendment and Bank's obligation to make further Credit Extensions, Bank shall have received the following prior to or concurrently with this Amendment, each in form and substance satisfactory to Bank:

7.1 The due execution and delivery to Bank of this Amendment by each party thereto;

7.2 copies, certified in a certificate executed by a duly authorized officer of Borrower, to be true and complete as of the date of such certificate, of each of (i) the governing documents of Borrower, as in effect on the date of such certificate, (ii) the resolutions of Borrower

authorizing the execution and delivery of this Amendment, all documents executed by it in connection herewith, and Borrower's performance of all of the transactions contemplated hereby, and (iii) an incumbency certificate giving the name and bearing a specimen signature of each individual who shall be so authorized;

7.3 a good standing certificate of Borrower, certified by the Secretary of State of the state of formation of Borrower, and each jurisdiction in which Borrower is qualified to do business required by Bank, dated as of a date no earlier than thirty (30) days prior to the date hereof;

7.4 repayment of all Obligations constituting Term Loan Advances (as defined in the Existing Loan Agreement) outstanding immediately prior to the First Amendment Effective Date;

7.5 certified copies, dated as of a recent date, of UCC and other lien searches of Borrower, as Bank may request and which shall be obtained by Bank, accompanied by written evidence (including any UCC termination statements) that the Liens revealed in any such searched either (i) will be terminated prior to or in connection with this Amendment, or (ii) will constitute Permitted Liens;

7.6 the Updated Perfection Certificate of Borrower;

7.7 Borrower's payment of Bank's legal fees and expenses incurred in connection with this Amendment; and

7.8 such other documents as Bank may reasonably request to effectuate the terms of this Amendment.

8. Governing Law. This Amendment and any claim, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Amendment and the transactions contemplated hereby and thereby shall be governed by, and construed in accordance with, the laws of the State of California, without giving effect to any choice or conflict of law provision or rule (whether of the State of California or any other jurisdiction).

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered as of the date first written above.

BANK: SILICON VALLEY BANK By: /s/ Mark Davis Name: Mark Davis Title: Senior Vice President		**BORROWER:** SI-BONE, INC. By: /s/ Anshul Maheshwari Name: Anshul Maheshwari Title: CFO

EXHIBIT A

[Attached.]

LOAN AND SECURITY AGREEMENT

This **LOAN AND SECURITY AGREEMENT** (this "**Agreement**") is dated as of the Effective Date between **SILICON VALLEY BANK**, a California corporation ("**Bank**"), and the borrower listed on Schedule I hereto ("**Borrower**"). The parties agree as follows:

1. LOAN AND TERMS OF PAYMENT

1.1 Term Loan Advance.

(a) Availability. Subject to the terms and conditions of this Agreement, on or about the First Amendment Effective Date or, Bank shall make one (1) term loan advance to Borrower in an original principal amount equal to the Term Loan Availability Amount (the "**Term Loan Advance**") which shall be used to (i) refinance the Term Loan Advance (as defined in the Agreement prior to the First Amendment Effective Date) outstanding as of the First Amendment Effective Date, (ii) satisfy the Final Payment (as defined in the Agreement prior to the First Amendment Effective Date), which is with respect to the Term Loan Advance (as defined in the Agreement prior to the First Amendment Effective Date), and (iii) thereafter, used for working capital purposes. Bank and Borrower acknowledge and agree that prior to the First Amendment Effective Date, the amount Borrower accrued and owed to Bank in connection with the Final Payment (as defined in the Agreement prior to the First Amendment Effective Date) was Two Hundred Seventy Four Thousand Nine Hundred Ninety Dollars and 88/100 ($274,990.88). After repayment (in whole or in part), the Term Loan Advance may not be reborrowed.

Additionally, at any time during the applicable draw period agreed to by Borrower and Bank, Borrower may request that Bank make additional term loan advances available to Borrower in an aggregate original principal amount of up to Fifteen Million Dollars ($15,000,000) (the "**Uncommitted Accordion**"). Bank, in its sole and absolute discretion, may grant or deny any such request from Borrower for a term loan advance under the Uncommitted Accordion. If, and only if, Bank, in its sole discretion, agrees to provide any additional term loan advance(s) to Borrower under the Uncommitted Accordion, each such term loan advance shall each be considered a "Term Loan Advance" hereunder and added to the definition thereof; provided that the terms of the making of any advance under the Uncommitted Accordion shall be outlined in an amendment to this Agreement to be entered into by the parties hereto.

(b) Repayment. Borrower shall repay the Term Loan Advance as set forth in Schedule I hereto. All outstanding principal and accrued and unpaid interest under the Term Loan Advance, and all other outstanding Obligations with respect to such Term Loan Advance, are due and payable in full on the Term Loan Maturity Date.

(c) Permitted Prepayment. Borrower shall have the option to prepay all, but not less than all, of the Term Loan Advance, provided Borrower (i) delivers written notice to Bank of its election to prepay the Term Loan Advance at least five (5) Business Days prior to such prepayment, and (ii) pays, on the date of such prepayment (A) the outstanding principal plus accrued and unpaid interest with respect to the Term Loan Advance, (B) the applicable Prepayment Fee, if any, (C) the Final Payment, and (D) all other sums, if any, that shall have become due and payable with respect to the Term Loan Advance, including interest at the Default Rate with respect to any past due amounts.

(d) Mandatory Prepayment Upon an Acceleration. If the Term Loan Advance is accelerated by Bank following the occurrence and during the continuance of an Event of Default, Borrower shall immediately pay to Bank an amount equal to the sum of (i) all outstanding principal plus accrued and unpaid interest with respect to the Term Loan Advance, (ii) the applicable Prepayment Fee, if any, (iii) the Final Payment, and (iv) all other sums, if any, that shall have become due and payable with respect to the Term Loan Advance, including interest at the Default Rate with respect to any past due amounts.

1.1.A Revolving Line.

(a) Availability. Subject to the terms and conditions of this Agreement and to deduction of Reserves, Bank shall make Advances under the Revolving Line upon Borrower's request not exceeding the Availability Amount. Amounts borrowed under the Revolving Line may be prepaid or repaid as set forth on Schedule I hereto.

(b) Termination; Repayment. The Revolving Line terminates on the Revolving Line Maturity Date, at which time the outstanding principal amount of all Advances, the accrued and unpaid interest thereon, and all other outstanding Obligations relating to the Revolving Line shall be immediately due and payable.

1.1.B **Overadvances.** If, at any time, the sum of the aggregate outstanding principal amount of any Advances exceeds the lesser of (i) the Revolving Line or (ii) the Borrowing Base, Borrower shall immediately pay to Bank in cash the amount of such excess (such excess, the "**Overadvance**"). Without limiting Borrower's obligation to repay Bank any Overadvance, at Bank's sole option, Borrower shall pay Bank interest on the outstanding amount of any Overadvance, on demand, at a rate per annum equal to the rate that is otherwise applicable to Advances plus three percent (3.0%).

1.2 Payment of Interest on the Credit Extensions.

(a) Interest Payments.

(i) Advances. Interest on the principal amount of each Advance is payable as set forth on Schedule I hereto.

(ii) Term Loan Advances. Interest on the outstanding principal amount of each Term Loan Advance is payable as set forth on Schedule I hereto.

(b) Interest Rate.

(i) Advances. Subject to Section 1.2(c), the outstanding principal amount of any Advance shall accrue interest as set forth on Schedule I hereto.

(ii) Term Loan Advances. Subject to Section 1.2(c), the outstanding principal amount of the Term Loan Advance shall accrue interest as set forth on Schedule I hereto.

(iii) All-In Rate. Notwithstanding any terms in this Agreement to the contrary, if at any time the interest rate applicable to any Obligations is less than zero percent (0.0%), such interest rate shall be deemed to be zero percent (0.0%) for all purposes of this Agreement.

(c) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, the outstanding Obligations shall bear interest at a rate per annum which is three percent (3.0%) above the rate that is otherwise applicable thereto (the "**Default Rate**"), unless Bank otherwise elects, in its sole discretion, to impose a lesser increase or no increase. Fees and expenses which are required to be paid by Borrower pursuant to the Loan Documents (including, without limitation, Bank Expenses) but are not paid when due shall bear interest until paid at a rate equal to the highest rate applicable to the Obligations. Payment or acceptance of the increased interest rate provided in this Section 1.2(c) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Bank.

(d) Adjustment to Interest Rate. Each change in the interest rate applicable to any amounts payable under the Loan Documents based on changes to the Prime Rate shall be effective on the effective date of any change to the Prime Rate and to the extent of such change.

(e) Interest Computation. Interest shall be computed as set forth on Schedule I hereto. In computing interest, the date of the making of any Credit Extension shall be included and the date of payment shall be excluded; provided, however, that if any Credit Extension is repaid on the same day on which it is made, such day shall be included in computing interest on such Credit Extension.

1.3 Fees and Expenses. Borrower shall pay to Bank:

(a) Prepayment Fee. The Prepayment Fee, if and when due hereunder, which shall be fully earned and non-refundable as of the applicable prepayment date; provided, however, if Borrower refinances the Term Loan Advance with another credit facility from Bank, Bank shall waive the Prepayment Fee;

(b) Final Payment. The Final Payment, when due hereunder, which shall be fully earned and non-refundable as of such date, provided however, for the avoidance of doubt, the Final Payment due under the terms of this original Agreement with respect to the original Term Loan Advances shall be pro-rated and accrued and payable only through the date such original Term Loan Advances are repaid on or around the First Amendment Effective Date, in accordance with Section 1.1(a);

(c) Revolving Line Commitment Fee. A fully earned, as of the First Amendment Effective Date, non-refundable commitment fee as set forth on Schedule I hereto; and

(d) Termination Fee. Upon termination of this Agreement or the termination of the Revolving Line for any reason prior to the Revolving Line Maturity Date, in addition to the payment of any other amounts then-owing, a termination fee in an amount equal to One Hundred Fifty Thousand Dollars ($150,000), which shall be fully earned and non-refundable as of such date; provided that no termination fee shall be charged if the credit facility hereunder is replaced with a new facility from Bank;

(e) Bank Expenses. All Bank Expenses incurred through and after the First Amendment Effective Date, when due (or, if no stated due date, upon demand by Bank). Borrower has paid to Bank a good faith deposit of Seventy-Five Thousand Dollars ($75,000) (the "**Good Faith Deposit**"), in connection with the First Amendment, to initiate Bank's due diligence review process. The Good Faith Deposit will be applied to Bank Expenses as of the Effective Date.

Unless otherwise provided in this Agreement or in a separate writing by Bank, Borrower shall not be entitled to any credit, rebate, or repayment of any fees earned by Bank pursuant to this Agreement notwithstanding any termination of this Agreement or the suspension or termination of Bank's obligation to make loans and advances hereunder. Bank may deduct amounts owing by Borrower under the clauses of this Section 1.3 pursuant to the terms of Section 1.4(c). Bank shall provide Borrower written notice of deductions made pursuant to the terms of the clauses of this Section 1.3.

1.4 Payments; Application of Payments; Debit of Accounts.

(a) All payments (including prepayments) to be made by Borrower under any Loan Document shall be made in immediately available funds in Dollars, without setoff, counterclaim, or deduction, before 12:00 p.m. Pacific time on the date when due. Payments of principal and/or interest received after 12:00 p.m. Pacific time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment shall be due the next Business Day, and additional fees or interest, as applicable, shall continue to accrue until paid.

(b) Subject to the payment terms of this Agreement and Section 8.4, Bank has the exclusive right in its reasonable discretion to determine the order and manner in which all payments with respect to the Obligations may be applied. Borrower shall have no right to specify the order or the accounts to which Bank shall allocate or apply any payments required to be made by Borrower to Bank or otherwise received by Bank under this Agreement when any such allocation or application is not specified elsewhere in this Agreement.

(c) Bank may debit the Designated Deposit Account (or if insufficient funds are contained therein, or if an Event of Default has occurred and is continuing, any of Borrower's other accounts at Bank), for principal and interest payments or any other amounts Borrower owes Bank when as and when due under this Agreement. These debits shall not constitute a set-off.

1.5 Change in Circumstances.

(a) Increased Costs. If any Change in Law shall: (i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or advances, loans or other credit extended or participated in by, Bank, (ii) subject Bank to any Taxes (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of Excluded Taxes, and (C) Connection Income Taxes) on its loans, loan principal, letters of credit, commitment, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto, or (iii) impose on Bank any other condition, cost or expense (other than Taxes) affecting this Agreement or Credit Extensions made by Bank, and the result of any of the foregoing shall be to increase the cost to Bank of making, converting to, continuing or maintaining any Credit Extension (or of maintaining its obligation to make any such Credit Extension), or to reduce the amount of any sum received or receivable by Bank hereunder (whether of principal, interest or any other amount) then, upon written request of Bank, Borrower shall promptly pay to Bank such additional amount or amounts as will compensate Bank for such additional costs incurred or reduction suffered.

(b) Capital Requirements. If Bank determines that any Change in Law affecting Bank regarding capital or liquidity requirements, has or would have the effect of reducing the rate of return on Bank's capital as a consequence of this Agreement, the Revolving Line, any term loan facility, or the Credit Extensions made by Bank to a level below that which Bank could have achieved but for such Change in Law (taking into consideration Bank's policies with respect to capital adequacy and liquidity), then from time to time upon written request of Bank, Borrower shall promptly pay to Bank such additional amount or amounts as will compensate Bank for any such reduction suffered.

(c) Delay in Requests. Failure or delay on the part of Bank to demand compensation pursuant to this Section 1.5 shall not constitute a waiver of Bank's right to demand such compensation; provided that Borrower compensate Bank pursuant to subsection (a) for any increased costs incurred or reductions suffered more than nine (9) months prior to the date that Bank notifies Borrower of the Change in Law giving rise to such increased costs or reductions (except that if the Change in Law giving rise to such increased costs or reductions is retroactive, then the nine (9) month period shall be extended to include the period of retroactive effect).

1.6 Taxes.

(a) Payments Free of Taxes. Any and all payments by or on account of any obligation of Borrower under any Loan Document shall be made without deduction or withholding for any Taxes, except as required by Applicable Law. If any Applicable Law (as determined in the commercially reasonable discretion of Borrower) requires the deduction or withholding of any Tax from any such payment by Borrower, then (i) Borrower shall be entitled to make such deduction or withholding, (ii) Borrower shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with Applicable Law, and (iii) if such Tax is an Indemnified Tax, the sum payable by Borrower shall be increased as necessary so that after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable under this Section 1.6) Bank receives an amount equal to the sum it would have received had no such deduction or withholding been made.

(b) Payment of Other Taxes by Borrower. Without limiting the provisions of subsection (a) above, Borrower shall timely pay any Other Taxes to the relevant Governmental Authority in accordance with Applicable Law.

(c) Tax Indemnification. Without limiting the provisions of subsections (a) and (b) above, Borrower shall, and does hereby, indemnify Bank, within ten (10) days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section 1.6) payable or paid by Bank or required to be withheld or deducted from a payment to Bank and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to Borrower by Bank shall be conclusive absent manifest error.

(d) Evidence of Payments. As soon as practicable after any payment of Taxes by Borrower to a Governmental Authority pursuant to this Section 1.6, Borrower shall deliver to Bank a certified copy of a receipt

issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to Bank.

(e) Status of Bank. If Bank (including any assignee or successor) is entitled to an exemption from or reduction of withholding tax with respect to payments made under any Loan Document, it shall deliver to Borrower, at the time or times reasonably requested by Borrower, such properly completed and executed documentation reasonably requested by Borrower as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, Bank, if reasonably requested by Borrower, shall deliver such other documentation prescribed by Applicable Law or reasonably requested by Borrower as will enable Borrower to determine whether or not Bank is subject to backup withholding or information reporting requirements. Without limiting the generality of the foregoing, Bank shall deliver whichever of IRS Form W-9, IRS Form W-8BEN-E, IRS Form W-8ECI or IRS Form W-8IMY is applicable, as well as any applicable supporting documentation or certifications. If a payment made to Bank under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if Bank were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Internal Revenue Code, as applicable), Bank shall deliver to Borrower at the time or times prescribed by law and at such time or times reasonably requested by Borrower such documentation prescribed by Applicable Law (including as prescribed by Section 1471(b)(3)(C)(i) of the Internal Revenue Code) and such additional documentation reasonably requested by Borrower as may be necessary for Borrower to comply with its obligations under FATCA and to determine that Bank has complied with its obligations under FATCA or to determine the amount, if any, to deduct and withhold from such payment. Solely for purposes of the preceding sentence, "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

(f) Treatment of Certain Refunds. If Bank determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this Section 1.6 (including by the payment of additional amounts pursuant to this Section 1.6), it shall pay to Borrower an amount equal to such refund (but only to the extent of indemnity payments made under this Section 1.6 with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of Bank and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Borrower, upon the request of Bank, shall repay to Bank the amount paid over pursuant to this paragraph (f) (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that Bank is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this paragraph (f), in no event will Bank be required to pay any amount to Borrower pursuant to this paragraph (f) the payment of which would place Bank in a less favorable net after-Tax position than Bank would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This paragraph (f) shall not be construed to require Bank to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to Borrower or any other Person.

1.7 Procedures for Borrowing.

(a) Advances. Subject to the prior satisfaction of all other applicable conditions to the making of an Advance set forth in this Agreement (which must be satisfied no later than 12:00 p.m. Pacific time on the applicable Funding Date), to obtain an Advance, Borrower (via an individual duly authorized by an Administrator) shall notify Bank (which notice shall be irrevocable) by 12:00 p.m. Pacific time on the Funding Date of the Advance. Such notice shall be made through Bank's online banking program, provided, however, if Borrower is not utilizing Bank's online banking program, then such notice shall be in a written format acceptable to Bank that is executed by an Authorized Signer. In connection with any such notification, Borrower shall deliver to Bank by electronic mail or through Bank's online banking program such reports and information, including without limitation, accounts receivable aging reports, as Bank may reasonably request. Bank shall have received satisfactory evidence that the Board has approved that such Authorized Signer may provide such notices and request Advances (which requirement may be deemed satisfied by the prior delivery of Borrowing Resolutions or a secretary's certificate that certifies as to such Board approval).

(b) Term Loan Advances. Subject to the prior satisfaction of all other applicable conditions to the making of the Term Loan Advance set forth in this Agreement (which must be satisfied no later than 12:00 p.m.

Pacific time on the applicable Funding Date), to obtain the Term Loan Advance, Borrower shall notify Bank (which notice shall be irrevocable) by 12:00 p.m. Pacific time on the Funding Date of the Term Loan Advance. Such notice shall be made by electronic mail or by telephone and, together with any such notification, Borrower shall deliver to Bank by electronic mail a completed Payment/Advance Form executed by an Authorized Signer. Bank may rely on any telephone notice given by a person whom Bank reasonably believes is an Authorized Signer. Borrower will indemnify Bank for any loss Bank suffers due to such reasonable belief or reliance. Bank shall have received satisfactory evidence that the Board has approved that such Authorized Signer may provide such notices and request such Term Loan Advance (which requirement may be deemed satisfied by the prior delivery of Borrowing Resolutions or a secretary's certificate that certifies as to such Board approval).

(c) Bank shall credit proceeds of a Credit Extension to the Designated Deposit Account. Bank may make Advances and Term Loan Advances under this Agreement based on instructions from an Authorized Signer or without instructions if such Advances or Term Loan Advances are necessary to meet Obligations which have become due.

2. CONDITIONS OF CREDIT EXTENSIONS

2.1 Conditions Precedent to Initial Credit Extension. Bank's obligation to make the initial Credit Extension is subject to the condition precedent that Bank shall have received, in form and substance satisfactory to Bank, such documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate, including, without limitation:

(a) duly executed Loan Documents;

(b) a duly executed Control Agreement with U.S. Bank;

(c) the Operating Documents of Borrower and its Subsidiaries and long-form good standing certificates of Borrower certified by the Secretary of State of the State of Delaware and the Secretary of State (or equivalent agency) of each other jurisdiction in which Borrower is qualified to conduct business, in each case as of a date no earlier than thirty (30) days prior to the Effective Date;

(d) a certificate duly executed by a Responsible Officer or secretary of Borrower with respect to Borrower's (i) Operating Documents and (ii) Borrowing Resolutions;

(e) a duly executed payoff letter from Solar Capital;

(f) evidence that (i) the Liens securing Indebtedness owed by Borrower to Solar Capital will be terminated and (ii) the documents and/or filings evidencing the perfection of such Liens, including without limitation any financing statements and/or control agreements, have or will, concurrently with the initial Credit Extension, be terminated;

(g) certified copies, dated as of a recent date, of searches for financing statement filed in the central filing office of the State of Delaware, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the initial Credit Extension, will be terminated or released;

(h) a duly executed Perfection Certificate of Borrower;

(i) a duly executed landlord's consent in favor of Bank for Borrower's leased location at 471 El Camino Real, Suite 101, Santa Clara, CA 95050;

(j) a legal opinion of Borrower's counsel dated as of the Effective Date;

(k) with respect to initial Advance, a completed Borrowing Base Certificate;

(l) the completion of the Initial Audit with respect to the initial Advance;

(m) evidence satisfactory to Bank that the insurance policies and endorsements required by Section 5.8 hereof are in full force and effect, together with appropriate evidence showing lender loss payable and additional insured clauses or endorsements in favor of Bank; and

(n) payment of the fees and Bank Expenses then due as specified in Section 1.3 hereof.

2.2 Conditions Precedent to all Credit Extensions. Bank's obligation to make each Credit Extension, including the initial Credit Extension, is subject to the following conditions precedent:

(a) receipt of Borrower's Credit Extension request and the related materials and documents as required by and in accordance with Section 1.7;

(b) the representations and warranties in this Agreement shall be true and correct in all material respects as of the date of any Credit Extension request and as of the Funding Date of each Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true and correct in all material respects as of such date, and no Default or Event of Default shall have occurred and be continuing or result from the Credit Extension. Each Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in this Agreement remain true and correct in all material respects; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true and correct in all material respects as of such date; and

(c) a Material Adverse Change shall not have occurred.

2.3 Covenant to Deliver.

(a) Borrower shall deliver to Bank each item required to be delivered to Bank under this Agreement as a condition precedent to any Credit Extension. A Credit Extension made prior to the receipt by Bank of any such item shall not constitute a waiver by Bank of Borrower's obligation to deliver such item, and the making of any Credit Extension in the absence of a required item shall be in Bank's sole discretion.

3. CREATION OF SECURITY INTEREST

3.1 Grant of Security Interest.

(a) Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Bank, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof.

(b) Borrower acknowledges that it previously has entered, or may in the future enter, into Bank Services Agreements with Bank. Regardless of the terms of any Bank Services Agreement, Borrower agrees that any amounts Borrower owes Bank thereunder shall be deemed to be Obligations hereunder and that it is the intent of Borrower and Bank to have all such Obligations secured by the first priority perfected security interest in the Collateral granted herein (subject to Permitted Liens).

3.2 Authorization to File Financing Statements. Borrower hereby authorizes Bank to file financing statements covering the Collateral, without notice to Borrower, with all jurisdictions deemed necessary or appropriate by Bank to perfect or protect Bank's interest or rights hereunder, including a notice that any disposition of the Collateral, by either Borrower or any other Person, in contravention of the terms of this Agreement shall be deemed to violate the rights of Bank under the Code. Such financing statements may indicate the Collateral

3.3 Termination. If this Agreement is terminated, Bank's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations) are repaid in full in cash. Upon payment in full in cash of the Obligations (other than inchoate indemnity obligations) and at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall, at Borrower's sole cost and expense, promptly terminate its security interest in the Collateral and all rights therein shall automatically revert to Borrower, and Bank shall, upon request from Borrower and at Borrower's sole cost and expense, promptly deliver to Borrower written evidence of the termination of such liens and any other documents reasonably necessary to terminate such liens. In the event (a) all Obligations (other than inchoate indemnity obligations), except for Bank Services, are satisfied in full, and (b) this Agreement is terminated, Bank shall terminate the security interest granted herein upon Borrower providing cash collateral acceptable to Bank in its commercially reasonable discretion for Bank Services, if any. In the event such Bank Services consist of outstanding Letters of Credit, Borrower shall provide to Bank cash collateral in an amount equal to at least (i) one hundred and five percent (105.0%) of the face amount of all such Letters of Credit denominated in Dollars and (ii) one hundred and fifteen percent (115.0%) of the Dollar Equivalent of the face amount of all such Letters of Credit denominated in a Foreign Currency, plus, in each case, all interest, fees, and costs due or estimated by Bank to become due in connection therewith, to secure all of the Obligations relating to such Letters of Credit.

4. REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

4.1 Due Organization, Authorization; Power and Authority.

(a) Borrower and each of its Subsidiaries are each duly existing and in good standing as a Registered Organization in their respective jurisdiction of formation and are qualified and licensed to do business and is in good standing in any other jurisdiction in which the conduct of their respective business or their ownership of property requires that they be qualified except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business or operations.

(b) All information set forth on the Perfection Certificate pertaining to Borrower and each of its Subsidiaries is true and correct in all material respects (it being understood and agreed that Borrower may from time to time update certain information in the Perfection Certificate after the First Amendment Effective Date to the extent permitted by one or more specific provisions in this Agreement and the Perfection Certificate shall be deemed to be updated to the extent such notice is provided to Bank of such permitted update).

(c) The execution, delivery and performance by Borrower and each of its Subsidiaries of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's or any such Subsidiary's organizational documents, (ii) contravene, conflict with, constitute a default under or violate any material Applicable Law, (iii) contravene, conflict with or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or any of its Subsidiaries or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except such Governmental Approvals which have already been obtained and are in full force and effect), or (v) conflict with, contravene, constitute a default or breach under, or result in or permit the termination or acceleration of, any material agreement by which Borrower or any of its Subsidiaries is bound, or applicable consents or waivers have been obtained. Neither Borrower nor any of its Subsidiaries are in default under any material agreement to which it is a party or by which it is bound in which the default could reasonably be expected to have a material adverse effect on Borrower's or any of its Subsidiary's business or operations (taken as a whole).

4.2 Collateral.

(a) The security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject to Permitted Liens). Borrower has good title to, rights in, and the power to transfer each item of the Collateral upon which it purports to grant a Lien hereunder, free and clear of any and all Liens except Permitted Liens.

(b) Borrower has no Collateral Accounts at or with any bank or financial institution other than Bank or Bank's Affiliates except for the Collateral Accounts described in the Perfection Certificate delivered to Bank in connection herewith and which Borrower has taken such actions as are necessary to give Bank a perfected security interest therein, to the extent that perfection is required pursuant to the terms of Section 5.9(a). The Accounts are bona fide, existing obligations of the Account Debtors.

(c) The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate or as permitted pursuant to Section 6.2 (other than laptops and other portable electronic items used in the ordinary course of business). None of the components of the Collateral shall be maintained at locations other than as provided in the Perfection Certificate or as permitted pursuant to Section 6.2 (other than laptops and other portable electronic items used in the ordinary course of business).

(d) All Inventory is in all material respects of good and marketable quality, free from material defects.

(e) Borrower owns, or possesses the right to use to the extent reasonably necessary in its business, all Intellectual Property, licenses and other intangible assets that are used in the conduct of its business operations as now operated, except to the extent that such failure to own or possess the right to use such asset would not reasonably be expected to have a material adverse effect on Borrower's business or operations, and no such asset, to the best knowledge of Borrower, conflicts with the valid Intellectual Property, license, or intangible asset of any other Person to the extent that such conflict could reasonably be expected to have a material adverse effect on Borrower's business or operations.

(f) Except as noted on the Perfection Certificate (as updated from time to time in accordance with this Agreement) or for which notice has been given to Bank pursuant to and in accordance with Section 5.11(b), Borrower is not a party to, nor is it bound by, any Restricted License.

4.3 Accounts Receivable.

(a) For each Account included in the most recent Borrowing Base Statement, on the date such related Advance is requested and made, such Account shall be an Eligible Account.

(b) All statements made and all unpaid balances appearing in all invoices, instruments and other documents evidencing the Eligible Accounts are and shall be true and correct and all such invoices, instruments and other documents, and all of Borrower's Books are genuine and in all respects what they purport to be. All sales and other transactions underlying or giving rise to each Eligible Account shall comply in all material respects with all Applicable Law. Borrower has no knowledge of any actual or imminent Insolvency Proceeding of any Account Debtor whose accounts are Eligible Accounts in any Borrowing Base Statement. To Borrower's knowledge, all signatures and endorsements on all documents, instruments, and agreements relating to all Eligible Accounts are genuine, and all such documents, instruments and agreements are legally enforceable in accordance with their terms.

4.4 Litigation. Other than as set forth on the Perfection Certificate delivered around the First Amendment Effective Date, and as disclosed to Bank pursuant to Section 5.3, there are no actions, investigations or proceedings pending or, to the knowledge of any Responsible Officer, threatened in writing by or against Borrower or any of its Subsidiaries that could reasonably be expected to result in liability of more than, individually or in the aggregate, Seven Hundred Fifty Thousand Dollars ($750,000).

4.5 Financial Statements; Financial Condition. All consolidated financial statements for Borrower and any of its Subsidiaries delivered to Bank by submission to the Financial Statement Repository or otherwise submitted to Bank fairly present in all material respects Borrower's consolidated financial condition and Borrower's consolidated results of operations as of the dates thereof and for the periods covered thereby, subject, in the case of unaudited financial statements, to normal year-end adjustments and the absence of footnote disclosures. There has not been any material deterioration in Borrower's consolidated financial condition since the date of the most recent financial statements submitted to the Financial Statement Repository or otherwise submitted to Bank.

4.6 Solvency. The fair salable value of Borrower's consolidated assets (including goodwill minus disposition costs) exceeds the fair value of Borrower's liabilities; Borrower is not left with unreasonably small capital after the transactions in this Agreement; and Borrower and Borrower and each of its Subsidiaries (taken as a whole) are able to pay their debts (including trade debts) as they mature.

4.7 Regulatory Compliance. Borrower is not an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower and each of its Subsidiaries (a) have complied in all material respects with all Applicable Law, and (b) have not violated any Applicable Law the violation of which could reasonably be expected to have a material adverse effect on Borrower's business or operations. Borrower and each of its Subsidiaries have duly complied with, and their respective facilities, business, assets, property, leaseholds, real property and Equipment are in compliance with, Environmental Laws, except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business or operations; there have been no outstanding citations, notices or orders of non-compliance issued to Borrower or any of its Subsidiaries or relating to their respective facilities, businesses, assets, property, leaseholds, real property or Equipment under such Environmental Laws Borrower and each of its Subsidiaries have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all Governmental Authorities that are necessary to continue their respective businesses as currently conducted, except where the failure to obtain or make or file the same would not reasonably be expected to have a material adverse effect on Borrower's business or operations.

4.8 Subsidiaries; Investments. Borrower does not own any stock, partnership, or other ownership interest or other equity securities except for Permitted Investments.

4.9 Tax Returns and Payments; Pension Contributions.

(a) Borrower and each of its Subsidiaries have timely filed, or submitted extensions for, all required tax returns and reports, and Borrower and each of its Subsidiaries have timely paid, or submitted extensions for, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower and each of its Subsidiaries except (i) to the extent such taxes are being contested in good faith by appropriate proceedings promptly instituted and diligently conducted, so long as such reserve or other appropriate provision, if any, as shall be required in conformity with GAAP shall have been made therefor, or (ii) if such taxes, assessments, deposits and contributions do not, individually or in the aggregate, exceed Fifty Thousand Dollars ($50,000). Borrower is unaware of any claims or adjustments proposed for any of Borrower's or any of its Subsidiary's prior tax years which could result in additional taxes becoming due and payable by Borrower or any of its Subsidiaries in excess of Fifty Thousand Dollars ($50,000) in the aggregate.

(b) Borrower and each of its Subsidiaries have paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and neither Borrower nor any of its Subsidiaries has withdrawn from participation in, and has not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any material liability of Borrower or any of its Subsidiaries, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other Governmental Authority.

4.10 Full Disclosure. No written representation, warranty or other statement of Borrower or any of its Subsidiaries in any report, certificate or written statement submitted to the Financial Statement Repository or otherwise submitted to Bank, as of the date such representation, warranty, or other statement was made, taken together with all such written reports, written certificates and written statements submitted to the Financial Statement Repository or otherwise submitted to Bank, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the reports, certificates or written statements not misleading in light of the circumstances under which they were made (it being recognized by Bank that the projections and forecasts provided by Borrower or any of its Subsidiaries in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

4.11 Sanctions. Neither Borrower nor any of its Subsidiaries is: (a) in violation of any Sanctions; or (b) a Sanctioned Person. Neither Borrower nor any of its Subsidiaries, or, to Borrower's knowledge, its directors, officers, employees, agents or Affiliates: (i) conducts any business or engages in any transaction or dealing with any Sanctioned Person, including making or receiving any contribution of funds, goods or services to or for the benefit of any Sanctioned Person; (ii) deals in, or otherwise engages in any transaction relating to, any property or interests in property blocked pursuant to any Sanctions; (iii) engages in or conspires to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate, any of the prohibitions set forth in any Sanctions; or (iv) otherwise engages in any transaction that could cause Bank to violate any Sanctions.

5. AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

5.1 Use of Proceeds. Cause the proceeds of the Credit Extensions to be used solely as follows: (a) for Credit Extensions that occur prior to the First Amendment Effective Date, (i) as working capital, (ii) to fund its general business purposes, or (iii) repayment and payoff of Solar Capital and not for personal, family, household or agricultural purposes, and (b) for Credit Extensions that occur on or after the First Amendment Effective Date, (x) as working capital, (y) to fund its general business purposes, or (z) repayment of all Obligations constituting Term Loan Advances (as defined in the Agreement prior to the First Amendment Effective Date) outstanding immediately prior to the First Amendment Effective Date.

5.2 Government Compliance.

(a) Maintain its and all of its Subsidiaries' legal existence (except as permitted under Section 6.3 with respect to Subsidiaries only) and good standing in their respective jurisdictions of formation and maintain qualification in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on Borrower's business or operations. Borrower shall comply, and have each Subsidiary comply, in all material respects, with all material laws, ordinances and regulations to which it is subject.

(b) Obtain all of the Governmental Approvals necessary for the performance by Borrower and each of its Subsidiaries of their obligations under the Loan Documents to which it is a party, including any grant of a security interest in the Collateral to Bank. Borrower shall promptly provide copies of any such obtained Governmental Approvals to Bank upon Bank's request.

5.3 Financial Statements, Reports. Deliver to Bank by submitting to the Financial Statement Repository:

(a) Borrowing Base Statement. Only when Advances are outstanding or are being requested by Borrower, a Borrowing Base Statement (and any schedules related thereto and including any other information reasonably requested by Bank with respect to Borrower's Accounts) (i) no later than Friday of each week when a Streamline Period is not in effect, (ii) within thirty (30) days after the end of each month when a Streamline Period is in effect, and (iii) with each request for an Advance;

(b) Accounts Receivable Information. Only when Advances are outstanding or are being requested by Borrower, within thirty (30) days after the end of each month, (i) monthly accounts receivable agings, aged by invoice date, (ii) monthly accounts payable agings, aged by invoice date, and outstanding or held check registers, if any, (iii) monthly reconciliations of accounts receivable agings (aged by invoice date), transaction reports, Deferred Revenue report, and general ledger;

(c) Quarterly Financial Statements. No later than forty-five (45) days after the last day of each of the first three fiscal quarters of Borrower's fiscal year, a company prepared consolidated and consolidating balance sheet and income statement covering Borrower's and each of its Subsidiary's operations for such quarter in a form reasonably acceptable to Bank (the "**Quarterly Financial Statements**"); provided that year-end Quarterly Financial Statements shall be delivered no later than ninety (90) days after the last day of each fiscal year of Borrower;

(d) Compliance Statement. Within forty-five (45) days after the last day of each of the first three fiscal quarters of Borrower (and no later than ninety (90) days after the last day of each fiscal year of Borrower), together with the statements set forth in Section 5.3(c), a duly completed Compliance Statement, confirming that as of the end of such month, Borrower was in full compliance with all of the terms and conditions of this Agreement, and setting forth calculations showing compliance with the financial covenants set forth in this Agreement and such other information as Bank may reasonably request, except as noted therein;

(e) Annual Operating Budget and Financial Projections. Within thirty (30) days after the end of each fiscal year of Borrower, and within thirty (30) days of any material updates or amendments thereto, (i) annual operating budgets (including income statements, balance sheets and cash flow statements, by month) for the then-current fiscal year of Borrower, and (ii) annual financial projections for the then-current fiscal year (on a quarterly basis), in each case as approved by the Board, together with any material related business forecasts used in the preparation of such annual financial projections;

(f) Annual Audited Financial Statements. As soon as available, and in any event within one hundred and eighty (180) days following the end of Borrower's fiscal year, audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion on the financial statements from an independent certified public accounting firm reasonably acceptable to Bank;

(g) SEC Filings. In the event that Borrower or any of its Subsidiaries becomes subject to the reporting requirements under the Exchange Act within five (5) Business Days of filing, notification of the filing and copies of all periodic and other reports, proxy statements and other materials filed by Borrower and/or any of its Subsidiaries or any Guarantor with the SEC, any Governmental Authority succeeding to any or all of the functions of the SEC or with any national securities exchange, or distributed to its shareholders, as the case may be. Documents required to be delivered pursuant to the terms hereof (to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date on which Borrower or any of its Subsidiaries posts such documents, or provides a link thereto, on Borrower's or any of its Subsidiaries' website on the internet at Borrower's or any of its Subsidiaries' website address; provided, however, Borrower shall notify Bank in writing within five (5) Business Days (which may be by electronic mail) of the posting of any such documents;

(h) Security Holder and Subordinated Debt Holder Reports. Within five (5) Business Days of delivery, copies of all material statements, reports and notices made generally available to Borrower's security holders or to any holders of Subordinated Debt (solely in their capacities as security holders or holders of Subordinated Debt and not in any other role);

(i) Beneficial Ownership Information. Prompt written notice of any changes to the beneficial ownership information set out in Section 14 of the Perfection Certificate. Borrower understands and acknowledges that Bank relies on such true, accurate and up-to-date beneficial ownership information to meet Bank's regulatory obligations to obtain, verify and record information about the beneficial owners of its legal entity customers;

(j) Legal Action Notice. Prompt written notice upon becoming aware of any legal actions, investigations or proceedings pending or threatened in writing against Borrower or any of its Subsidiaries (not otherwise already disclosed on the Perfection Certificate delivered around the First Amendment Effective Date) that could reasonably be expected to result in damages or costs to Borrower or any of its Subsidiaries of, individually or in the aggregate, Seven Hundred Fifty Thousand Dollars ($750,000) or more;

(k) Tort Claim Notice. If Borrower shall acquire a commercial tort claim with a value that could reasonably be expected to exceed Five Hundred Thousand Dollars ($500,000), Borrower shall promptly notify Bank in a writing signed by Borrower of the general details thereof and, if so requested by Bank, grant to Bank in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Bank;

(l) Government Filings. Within five (5) Business Days after the same are sent by Borrower or received by Borrower, copies of all material correspondence, reports, documents and other filings by Borrower or

any of its Subsidiaries with any Governmental Authority regarding compliance with or maintenance of Governmental Approvals or Applicable Law, in each case that could reasonably be expected to have a material effect on any of the Governmental Approvals material to the business of Borrower;

(m) Registered Organization. If Borrower is not a Registered Organization as of the Effective Date but later becomes one, promptly notify Bank of such occurrence and provide Bank with Borrower's organizational identification number;

(n) Default. Prompt written notice of the occurrence of a Default or Event of Default; and

(o) Other Information. Promptly, from time to time, such other financial information regarding Borrower or any of its Subsidiaries or compliance with the terms of any Loan Documents as reasonably requested by Bank.

Any submission by Borrower of a Compliance Statement, or any other financial statement submitted to the Financial Statement Repository pursuant to this Section 5.3 or otherwise submitted to Bank shall be deemed to be a representation by Borrower that (i) as of the date of such Compliance Statement, or other financial statement, the information and calculations set forth therein are true and correct in all material respects, (ii) as of the end of the compliance period set forth in such submission, Borrower is in complete compliance with all required covenants except as noted in such Compliance Statement, or other financial statement, as applicable, except as noted in such Compliance Statement or other financial statement, as applicable; (iii) as of the date of such submission, no Events of Default have occurred or are continuing, (iv) all representations and warranties other than any representations or warranties that are made as of a specific date in Section 4 remain true and correct in all material respects as of the date of such submission except as noted in such Compliance Statement, or other financial statement, as applicable, (v) as of the date of such submission, Borrower and each of its Subsidiaries has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 4.9, and (vi) as of the date of such submission, no Liens have been levied or claims made against Borrower or any of its Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Bank.

5.4 Accounts Receivable.

(a) Schedules and Documents Relating to Accounts. Only when Advances are outstanding or are being requested by Borrower, Borrower shall deliver to Bank transaction reports and schedules of collections, as provided in Section 5.3(b), on Bank's standard forms; provided, however, that Borrower's failure to execute and deliver the same shall not affect or limit Bank's Lien and other rights in all of Borrower's Accounts, nor shall Bank's failure to advance or lend against a specific Account affect or limit Bank's Lien and other rights therein. If requested by Bank, Borrower shall furnish Bank with copies (or, at Bank's request, originals) of all contracts, orders, invoices, and other similar documents, and all shipping instructions, delivery receipts, bills of lading, and other evidence of delivery, for any goods the sale or disposition of which gave rise to such Accounts. In addition, Borrower shall deliver to Bank, on its request, the originals of all instruments, chattel paper, security agreements, guarantees and other documents and property evidencing or securing any Accounts, in the same form as received, with all necessary indorsements, and copies of all credit memos.

(b) Disputes. Borrower shall promptly notify Bank of all disputes or claims relating to Accounts that continue for more than thirty (30) days and are with respect to an amount in excess of Two Hundred Thousand Dollars ($200,000) in the aggregate at such time. Borrower may forgive (completely or partially), compromise, or settle any Account for less than payment in full, or agree to do any of the foregoing so long as (i) Borrower does so in good faith, in a commercially reasonable manner, in the ordinary course of business, in arm's-length transactions, and reports the same to Bank in the regular reports provided to Bank; (ii) no Event of Default has occurred and is continuing; and (iii) there shall not be an Overadvance after taking into account all such discounts, settlements and forgiveness.

(c) Collection of Accounts. Within sixty (60) days of the First Amendment Effective Date, Borrower shall direct Account Debtors to deliver or transmit all proceeds of Accounts into a lockbox account, or such

other "blocked account" as specified by Bank (either such account, the "Cash Collateral Account"). Whether or not an Event of Default has occurred and is continuing, Borrower shall immediately deliver all payments on and proceeds of Accounts to the Cash Collateral Account. Subject to Bank's right to maintain a reserve pursuant to Section 5.4(d), all amounts received in the Cash Collateral Account shall be (i) when a Streamline Period is not in effect, applied to immediately reduce the Obligations under the Revolving Line (unless Bank, in its sole discretion, at times when an Event of Default exists, elects not to so apply such amounts), or (ii) when a Streamline Period is in effect, transferred by Bank on a daily basis to Borrower's operating account with Bank. Borrower hereby authorizes Bank to transfer to the Cash Collateral Account any amounts that Bank reasonably determines are proceeds of the Accounts (provided that Bank is under no obligation to do so and this allowance shall in no event relieve Borrower of its obligations hereunder).

(d) Reserves. Notwithstanding any terms in this Agreement to the contrary, at times when a Default or an Event of Default exists, Bank may hold any proceeds of the Accounts and any amounts in the Cash Collateral Account that are not applied to the Obligations pursuant to Section 5.4(c) above (including amounts otherwise required to be transferred to Borrower's operating account with Bank) as a reserve to be applied to any Obligations regardless of whether such Obligations are then due and payable.

(e) Returns. Provided no Event of Default has occurred and is continuing, if any Account Debtor returns any Inventory to Borrower, Borrower shall promptly (i) determine the reason for such return, (ii) issue a credit memorandum to the Account Debtor in the appropriate amount in accordance with Borrower's customary business practices, and (iii) provide a copy of such credit memorandum to Bank, upon request from Bank. In the event any attempted return occurs after the occurrence and during the continuance of any Event of Default, Borrower shall hold the returned Inventory in trust for Bank, and immediately notify Bank of the return of the Inventory.

(f) Verifications; Confirmations; Credit Quality; Notifications. Bank may, from time to time, (i) verify and confirm directly with the respective Account Debtors the validity, amount and other matters relating to the Accounts, either in the name of Borrower or Bank or such other name as Bank may choose, and notify any Account Debtor of Bank's security interest in such Account and/or (ii) conduct a credit check of any Account Debtor to approve any such Account Debtor's credit.

(g) No Liability. Bank shall not be responsible or liable for any shortage or discrepancy in, damage to, or loss or destruction of, any goods, the sale or other disposition of which gives rise to an Account, or for any error, act, omission, or delay of any kind occurring in the settlement, failure to settle, collection or failure to collect any Account, or for settling any Account in good faith for less than the full amount thereof, nor shall Bank be deemed to be responsible for any of Borrower's obligations under any contract or agreement giving rise to an Account. Nothing herein shall, however, relieve Bank from liability for its own gross negligence or willful misconduct.

5.5 Remittance of Proceeds. Except as otherwise provided in Section 5.4(c) and Section 7.1, deliver, in kind, all proceeds arising from the disposition of any Collateral to Bank in the original form in which received by Borrower not later than the following Business Day after receipt by Borrower, to be applied to the Obligations (a) prior to an Event of Default, pursuant to the terms of Section 5.4(c) hereof, and (b) after the occurrence and during the continuance of an Event of Default, pursuant to the terms of Section 8.4 hereof; provided that, if no Event of Default has occurred and is continuing, Borrower shall not be obligated to remit to Bank the proceeds of the sale of worn out or obsolete Equipment disposed of by Borrower in good faith in an arm's length transaction for an aggregate purchase price of One Hundred Thousand Dollars ($100,000) or less (for all such transactions in any fiscal year). Borrower agrees that it will not commingle proceeds of Collateral with any of Borrower's other funds or property, but will hold such proceeds separate and apart from such other funds and property and in an express trust for Bank. Nothing in this Section 5.5 limits the restrictions on disposition of Collateral set forth elsewhere in this Agreement.

5.6 Taxes; Pensions.

(a) Timely file, and require each of its Subsidiaries to timely file (in each case, unless subject to a valid extension), all required tax returns and reports and timely pay, and require each of its Subsidiaries to timely pay, or file extensions for, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower and each of its Subsidiaries, except for (deferred payment of any taxes contested pursuant to the terms of

Section 4.9(a) hereof, and shall deliver to Bank, on demand, appropriate certificates attesting to such payments, and pay, and require each of its Subsidiaries to pay, all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms.

(b) To the extent Borrower or any of its Subsidiaries defers payment of any contested taxes in excess of Fifty Thousand Dollars ($50,000), (i) notify Bank in writing of the commencement of, and any material development in, the proceedings, and (ii) post bonds or take any other steps required to prevent the Governmental Authority levying such contested taxes from obtaining a Lien upon any of the Collateral that is other than a "Permitted Lien."

5.7 Access to Collateral; Books and Records. At reasonable times, on five (5) Business Days' notice (provided no notice is required if an Event of Default has occurred and is continuing), Bank, or its agents, shall have the right to inspect the Collateral and the right to audit and copy Borrower's Books. The Initial Audit shall be completed within ninety (90) days after the First Amendment Effective Date, and Borrower shall cooperate with Bank in order to timely complete same. Thereafter, (i) when Streamline Period is in effect, such inspections and audits shall be conducted no more often than once every twelve (12) months, unless an Event of Default has occurred and is continuing, in which case such inspections and audits shall occur as often as Bank shall determine is necessary and (ii) when Streamline Period is not in effect, such inspections and audits shall be conducted no more often than once every six (6) months (or as frequently as Bank determines in its sole discretion that conditions warrant), unless an Event of Default has occurred and is continuing, in which case such inspections and audits shall occur as often as Bank shall determine is necessary. The foregoing inspections and audits shall be conducted at Borrower's expense and the charge therefor shall be One Thousand Dollars ($1,000) per person per day (or such higher amount as shall represent Bank's then-current standard charge for the same), plus reasonable out-of-pocket expenses. In the event Borrower and Bank schedule an audit more than eight (8) days in advance, and Borrower cancels or seeks to or reschedules the audit with less than eight (8) days written notice to Bank, then (without limiting any of Bank's rights or remedies) Borrower shall pay Bank a fee of Two Thousand Dollars ($2,000) plus any out-of-pocket expenses incurred by Bank to compensate Bank for the anticipated costs and expenses of the cancellation or rescheduling.

5.8 Insurance.

(a) Keep its business and the Collateral insured for risks and in amounts standard for companies in Borrower's industry and location and as Bank may reasonably request. Insurance policies shall be in a form, with financially sound and reputable insurance companies that are not Affiliates of Borrower, and in amounts that are reasonably satisfactory to Bank.

(b) All property policies shall have a lender's loss payable endorsement showing Bank as lender loss payee. All liability policies shall show, or have endorsements showing, Bank as an additional insured. Bank shall be named as lender loss payee and/or additional insured with respect to any such insurance providing coverage in respect of any Collateral.

(c) Ensure that proceeds payable under any property policy are, at Bank's option, payable to Bank on account of the Obligations. Notwithstanding the foregoing, (a) so long as no Event of Default has occurred and is continuing, Borrower shall have the option of applying the proceeds of any casualty policy up to One Million Dollars ($1,000,000) in the aggregate for all losses under all casualty policies in any one year, toward the replacement or repair of destroyed or damaged property; provided that any such replaced or repaired property (i) shall be of equal or like value as the replaced or repaired Collateral and (ii) shall be deemed Collateral in which Bank has been granted a first priority security interest, and (b) after the occurrence and during the continuance of an Event of Default, all proceeds payable under such casualty policy shall, at the option of Bank, be payable to Bank on account of the Obligations.

(d) At Bank's request, Borrower shall deliver certified copies of insurance policies and evidence of all premium payments. Each provider of any such insurance required under this Section ~~5.8~~6.5 shall agree, by endorsement upon the policy or policies issued by it or by independent instruments furnished to Bank, that it will give Bank twenty (20) days (or ten (10) days' prior written notice in the event of cancellation due to non-payment of premium) prior written notice before any such policy or policies shall be materially altered or canceled.

If Borrower fails to obtain insurance as required under this Section 5.8 or to pay any amount or furnish any required proof of payment to third persons and Bank, Bank may make all or part of such payment or obtain such insurance policies required in this Section 5.8, and take any action under the policies Bank deems prudent.

5.9 Accounts.

(a) Maintain all of Borrower's, any of its Subsidiaries', and any Guarantor's operating accounts, depository accounts and excess cash with Bank or Bank's Affiliates, other than Borrower's Foreign Subsidiaries may maintain accounts with third parties other than Bank, provided the aggregate value of such accounts is subject to the terms of Section 6.11 (collectively the "**Permitted Foreign Subsidiary Accounts**").

(b) In addition to the foregoing, Borrower, any Subsidiary of Borrower and any Guarantor, shall obtain any business credit card, Letter of Credit, FX Contract, and cash management services exclusively from Bank, except (i) third party credit cards, as permitted in the defined term "Permitted Indebtedness" part (g); (ii) Borrower's Foreign Subsidiaries may maintain the foregoing bank services with third parties other than Bank, (iii) to the extent that Bank does not have such services in foreign locations, Borrower and its Subsidiaries may maintain the foregoing foreign banking services with third parties other than Bank, and (iv) Borrower may maintain and permit to exist online payment processors used in the ordinary course of business with third parties other than Bank.

(c) In addition to and without limiting the restrictions in (a), Borrower shall provide Bank five (5) days prior written notice before establishing any Collateral Account at or with any bank or financial institution other than Bank or Bank's Affiliates. For each Collateral Account that Borrower at any time maintains, Borrower shall cause the applicable bank or financial institution (other than Bank) at or with which any Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Bank's Lien in such Collateral Account in accordance with the terms hereunder which Control Agreement may not be terminated without the prior written consent of Bank. The provisions of the previous sentence shall not apply to (i) deposit accounts exclusively used for payroll, payroll taxes, and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Bank by Borrower as such, and (ii) the Permitted Foreign Subsidiary Accounts.

5.10 Financial Covenant (Net Revenue). When a Financial Covenant Measuring Period is in effect, Borrower shall achieve Net Revenue (measured in accordance with GAAP on a trailing six (6) month basis), tested quarterly on the last day of each calendar quarter, in an amount equal to or greater than the levels to be agreed upon between Borrower and Bank with respect to which Borrower hereby agrees: (i) shall be documented in an amendment to this Agreement, in form and substance acceptable to Bank, which amendment shall be executed no later than February 28th of each year beginning with February 28, 2024 with Borrower's failure to enter into such amendment to this Agreement to reset such covenant levels on or prior to February 28th of each year shall be an immediate and non-curable Event of Default hereunder; (ii) shall be based on Borrower's projections delivered to Bank in accordance with Section 5.3(e) hereof and acceptable to Bank in its commercially reasonable discretion with such projections for Borrower's 2024 fiscal year showing annual Net Revenue of not less than [***] Dollars. Notwithstanding anything to the contrary herein, if a Financial Covenant Measuring Period is occurring at any point between January 1, 2024 and February 28, 2024, then Borrower's Net Revenue (measured in accordance with GAAP on a trailing six (6) month basis) for the period ending December 31, 2023 shall be tested and such Net Revenue shall not be less than [***] Dollars.

5.11 Protection of Intellectual Property Rights.

(a) (i) Use commercially reasonable efforts to protect, defend and maintain the validity and enforceability of Borrower's and each Subsidiary's Intellectual Property, except to the extent that such failure to do so would not reasonably be expected to have a material adverse effect on Borrower's business or operations or that such Intellectual Property does not have material value; (ii) promptly advise Bank in writing of infringements or any other event that could reasonably be expected to materially and adversely affect the value Borrower's and each Subsidiary's Intellectual Property that has material value; and (iii) not allow any Intellectual Property material to Borrower's or any Subsidiary's business to be abandoned, forfeited or dedicated to the public without Bank's written consent.

(b) Provide written notice to Bank within thirty (30) days of entering or becoming bound by any Restricted License (other than over-the-counter software that is commercially available to the public). Borrower shall take such commercially reasonable steps as Bank requests to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (i) any such Restricted License to be deemed "Collateral" and for Bank to have a security interest in it that might otherwise be restricted or prohibited by law or by the terms of any such Restricted License, whether now existing or entered into in the future, and (ii) Bank to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Bank's rights and remedies under this Agreement and the other Loan Documents.

5.12 Litigation Cooperation. From the date hereof and continuing through the termination of this Agreement, make available to Bank, without expense to Bank, Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Bank may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Bank with respect to any Collateral or relating to Borrower.

5.13 Reserved.

5.14 Formation or Acquisition of Subsidiaries. Notwithstanding and without limiting the negative covenants contained in Sections 6.3 and 6.7 hereof, at the time that Borrower or any Guarantor forms any Subsidiary or acquires any Subsidiary after the Effective Date (including, without limitation, pursuant to a Division), Borrower and such Guarantor shall (a) cause such new Subsidiary to provide to Bank a joinder to this Agreement to become a co-borrower hereunder or a guaranty to become a Guarantor hereunder (as determined by Bank in its sole discretion), together with documentation, all in form and substance satisfactory to Bank (including being sufficient to grant Bank a first priority Lien (subject to Permitted Liens) in and to the assets of such newly formed or acquired Subsidiary that constitute Collateral), (b) provide to Bank appropriate certificates and powers and financing statements, pledging (i) all of the direct or beneficial ownership interest in such new Subsidiary, in form and substance reasonably satisfactory to Bank; and (c) provide to Bank all other documentation in form and substance reasonably satisfactory to Bank, including one or more opinions of counsel satisfactory to Bank, which in its opinion is appropriate with respect to the execution and delivery of the applicable documentation referred to above. Any document, agreement, or instrument executed or issued pursuant to this Section 5.14 shall be a Loan Document.

5.15 Inventory; Returns. Keep all Inventory in good and marketable condition, free from material defects. Returns and allowances between Borrower and its Account Debtors shall follow Borrower's customary practices as they exist at the Effective Date. Borrower shall promptly notify Bank of all returns, recoveries, disputes and claims that involve more than Two Hundred Fifty Thousand Dollars ($250,000) (measured as to any single return, recovery, dispute or claim, and not in the aggregate at such time).

5.16 Further Assurances. Execute any further instruments and take such further action as Bank reasonably requests to perfect, protect, ensure the priority of or continue Bank's Lien on the Collateral or to affect the purposes of this Agreement.

5.17 Sanctions. (a) Not, and not permit any of its Subsidiaries to, engage in any of the activities described in Section 4.11 in the future; (b) not, and not permit any of its Subsidiaries to, become a Sanctioned Person; (c) ensure that the proceeds of the Obligations are not used to violate any Sanctions; and (d) deliver to Bank any certification or other evidence requested from time to time by Bank in its sole discretion, confirming each such Person's compliance with this Section 5.17. In addition, have implemented, and will consistently apply while this Agreement is in effect, reasonable procedures to ensure that the representations and warranties in Section 4.11 remain true and correct while this Agreement is in effect.

5.18 Post-Closing Obligations.

(a) As soon as possible, but in any event not later than the date that is thirty (30) days after the First Amendment Effective Date, Borrower shall deliver to Bank evidence satisfactory to Bank that the insurance policies and endorsements required by Section 5.8 hereof are in full force and effect, together with appropriate evidence showing lender loss payable and additional insured clauses or endorsements in favor of Bank.

(b) As soon as possible, but in any event not later than the date that is five (5) days after the First Amendment Effective Date, Borrower shall deliver to Bank a duly executed Control Agreement with U.S. Bank.

6. NEGATIVE COVENANTS

Borrower shall not do any of the following without Bank's prior written consent:

6.1 Dispositions. Convey, sell, lease, transfer, assign, or otherwise dispose of (including, without limitation, pursuant to a Division) (collectively, "**Transfer**"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn-out, surplus or obsolete Equipment that is, in the reasonable judgment of Borrower, no longer economically practicable to maintain or useful in the ordinary course of business of Borrower; (c) consisting of Permitted Liens and Permitted Investments; (d) consisting of the sale or issuance of any stock, partnership, membership, or other ownership interest or other equity securities of Borrower permitted under Section 6.2 of this Agreement; (e) consisting of Borrower's or its Subsidiaries' use or transfer of money or Cash Equivalents in a manner that is not prohibited by the terms of this Agreement or the other Loan Documents, including without limitation cash returns or refunds of customer payments; (f) of non-exclusive licenses for the use of the property of Borrower or its Subsidiaries in the ordinary course of business, and other licenses permitted pursuant to part (h) of the defined Permitted Liens; (g) other Transfers not to exceed One Hundred Thousand Dollars ($100,000) in any twelve (12) month period; and (h) other Transfers in which Borrower will receive cash proceeds in an amount equal to no less than seventy-five percent (75%) of such other Transfer consideration (fixed or contingent) paid or payable to Borrower or its Subsidiary.

For the avoidance of doubt, none of (a) the sale of any Permitted Convertible Indebtedness, (b) the sale of any Warrant Transaction, (c) the purchase of any Bond Hedge Transaction or (d) the performance by Borrower of its obligations under any Permitted Convertible Indebtedness, any Warrant Transaction or any Bond Hedge Transaction (including the settlement or termination of any Bond Hedge Transaction or Warrant Transaction) shall constitute a Transfer.

6.2 Changes in Business, Management, Control, or Business Locations. (a) Engage in or permit any of its Subsidiaries to engage in any business other than the businesses currently engaged in by Borrower and such Subsidiary, as applicable, or reasonably related thereto; (b) liquidate or dissolve or permit any of its Subsidiaries to liquidate or dissolve (unless such Subsidiary's assets are transferred to Borrower); (c) fail to provide notice to Bank of any Key Person departing from or ceasing to be employed by Borrower within seven (7) Business Days after such Key Person's departure from Borrower; (d) permit, allow or suffer to occur any Change in Control; (e) without at least ten (10) days prior written notice to Bank, (i) add any new offices or business locations, including warehouses (unless such new offices or business locations contain less than Two Hundred Thousand Dollars ($200,000) in Borrower's assets or property) or deliver any portion of the Collateral valued, individually or in the aggregate, in excess of Two Hundred Thousand Dollars ($200,000) to a bailee at a location other than to a bailee and at a location already disclosed in the Perfection Certificate, or (f) without at least twenty (20) days prior written notice to Bank (i) change its jurisdiction of organization, (ii) change its organizational structure or type, (iii) change its legal name, or, (iv) change any organizational number (if any) assigned by its jurisdiction of organization. If Borrower intends to add any new offices or business locations, including warehouses, containing in excess of Two Hundred Thousand Dollars ($200,000) of Borrower's assets or property, then Borrower will cause the landlord of any such new offices or business locations, including warehouses, to execute and deliver a landlord consent in form and substance reasonably satisfactory to Bank. If Borrower intends to deliver any portion of the Collateral valued, individually or in the aggregate, in excess of Two Hundred Thousand Dollars ($200,000) to a bailee, and Bank and such bailee are not already parties to a bailee agreement governing both the Collateral and the location to which Borrower intends to deliver the Collateral, then Borrower will cause such bailee to execute and deliver a bailee agreement in form and substance reasonably satisfactory to Bank. For the avoidance of doubt, no landlord or bailee waivers shall be required for or with respect to any foreign locations of Borrower or its Subsidiaries.

6.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with any other Person, or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the stock, partnership, membership, or other ownership interest or other equity securities or property of another Person (including, without limitation, by the formation of any Subsidiary or pursuant to a Division), except (i) if (a) Borrower

has complied with the notice requirements applicable to prepayments hereunder, and (b) prior to or contemporaneously with the closing of such transaction, all Obligations are paid in full in cash, and all of Bank's obligations to lend to Borrower under this Agreement are terminated, and/or (iii) Permitted Acquisitions. A Subsidiary may merge or consolidate into another Subsidiary or into Borrower.

6.4 Indebtedness. Create, incur, assume, or be liable for any Indebtedness, or permit any Subsidiary to do so, other than Permitted Indebtedness.

6.5 Encumbrance. Create, incur, allow, or suffer to exist any Lien on any of its property, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, in each case as to the foregoing except for Permitted Liens, permit any Collateral not to be subject to the first priority security interest granted herein, other than Permitted Liens, or enter into any agreement, document, instrument or other arrangement (except with or in favor of Bank) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower or any Subsidiary from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or any Subsidiary's Intellectual Property, except as is otherwise permitted in Section 6.1 hereof and the definition of "Permitted Liens" herein.

6.6 Maintenance of Collateral Accounts. Maintain any Collateral Account except pursuant to the terms of Section 5.9(a).

6.7 Distributions; Investments. (a) Pay any dividends or make any distribution or payment or redeem, retire or purchase any stock, partnership, membership, or other ownership interest or other equity securities, provided that Borrower may (i) convert any of its convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof, (ii) pay dividends solely in common stock or equity interests, (iii) repurchase the stock of former employees, officers, directors or consultants pursuant to stock repurchase agreements or termination of employment or service or repurchases pursuant to rights of first refusal in Borrower's bylaws, so long as an Event of Default does not exist at the time of any such repurchase and would not exist after giving effect to any such repurchase; provided the aggregate amount of all such repurchases shall not exceed Five Hundred Thousand Dollars ($500,000) per fiscal year, (iv) pay cash distributions in lieu of issuing fractional shares; provided the aggregate amount of all such payments shall not exceed Two Hundred Thousand Dollars ($200,000) per fiscal year , (v) distribute equity securities to former or current employees, officers, consultants or directors pursuant to the exercise of employee stock options approved by the Board, (vi) pay, in connection with any Permitted Acquisition by Borrower or any of its Subsidiaries, (A) the receipt or acceptance of the return to Borrower or any of its Subsidiaries of stock or equity interests of Borrower constituting a portion of the purchase price consideration in settlement of indemnification claims, or as a result of a purchase price adjustment (including earn-outs or similar obligations) and (B) payments or distributions to equity holders pursuant to appraisal rights required under requirements of law; (vii) the distribution of rights pursuant to any shareholder rights plan or the redemption of such rights for nominal consideration in accordance with the terms of any shareholder rights plan, and (viii) for the avoidance of doubt, Subsidiaries of Borrower shall be permitted to, directly or indirectly, pay dividends or make distributions to other Subsidiaries or to Borrower, or (b) directly or indirectly make any Investment (including, without limitation, by the formation of any Subsidiary) other than Permitted Investments, or permit any of its Subsidiaries to do so.

Notwithstanding the foregoing, or anything to the contrary herein, and for the avoidance of doubt, this Section 6.7 shall not prohibit (i) the conversion by holders of (including any cash payment upon conversion), or required payment of any principal or premium on, or required payment of any interest with respect to, any Permitted Convertible Debt, in each case, in accordance with the terms of the indenture governing such Permitted Convertible Debt; *provided* that the preceding sentence shall only allow principal payments with respect to any repurchase in connection with the redemption of Permitted Convertible Debt upon satisfaction of a condition related to the stock price of the Borrower's common stock if the Redemption Conditions are satisfied in respect of such redemption; *provided further* that, to the extent both (a) the aggregate amount of cash payable upon conversion or redemption of any Permitted Convertible Debt (excluding any required payment of interest with respect to such Permitted Convertible Debt and excluding any payment of cash in lieu of a fractional share due upon conversion thereof) exceeds the aggregate principal amount thereof and (b) such conversion or redemption does not trigger or correspond to an exercise or early unwind or settlement of a corresponding portion of the Bond Hedge Transactions constituting Permitted Call Spread Agreements

relating to such Permitted Convertible Debt (including, for the avoidance of doubt, the case where there is no Bond Hedge Transaction constituting a Permitted Call Spread Agreement relating to such Permitted Convertible Debt), the payment of such excess cash (any such payment, a "**Cash Excess Payment**") shall not be permitted by this clause (i); and (ii) any required payment with respect to (including, for the avoidance of doubt, the payment of the relevant premium for the purchase thereof), or required early unwind or settlement of, any Permitted Call Spread Agreement, in each case, in accordance with the terms of the agreement governing such Permitted Call Spread Agreement; *provided* that, to the extent cash is required to be paid under a Warrant Transaction as a result of the election of "cash settlement" (or substantially equivalent term) as the "settlement method" (or substantially equivalent term) thereunder by the Borrower (or its Affiliate) (including in connection with the exercise and/or early unwind or settlement thereof), the payment of such cash shall not be permitted by this clause (ii). Notwithstanding the foregoing, the Borrower may repurchase, exchange or induce the conversion of Permitted Convertible Debt by delivery of shares of the Borrower's common stock and/or a different series of Permitted Convertible Debt (which series (I) matures after, and does not require any scheduled amortization or other scheduled payments of principal prior to, the analogous date under the indenture governing the Permitted Convertible Debt that are so repurchased, exchanged or converted and (II) has terms, conditions and covenants that are commercially reasonable to the Borrower (as determined by the Borrower in good faith) (any such series of Permitted Convertible Debt, "**Refinancing Convertible Debt**") and/or by payment of cash (x) in lieu of any fractional shares, (y) in respect of accrued and unpaid interest of such Permitted Convertible Debt and (z) additional cash in an amount that does not exceed the proceeds received by the Borrower from the substantially concurrent issuance of shares of the Borrower's common stock and/or a Refinancing Convertible Debt plus the net cash proceeds, if any, received by the Borrower pursuant to the related exercise or early unwind or termination of the related Permitted Call Spread Agreements pursuant to the immediately following proviso; *provided* that, substantially concurrently with, or a commercially reasonable period of time before or after, the related settlement date for the Permitted Convertible Debt that is so repurchased, exchanged or converted, the Borrower shall (and, for the avoidance of doubt, shall be permitted under this Section 7.7 to) exercise or unwind or terminate early (whether in cash, shares or any combination thereof) the portion of the Permitted Call Spread Agreements, if any, corresponding to such Permitted Convertible Debt that is so repurchased, exchanged or converted.

6.8 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower, except for (a) transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person; (b) sales of Borrower's equity securities to the then-existing investors of Borrower in connection with a bona fide equity financing by the Board so long as such sale shall not result in a violation of the Change of Control provision in Section 6.2, (c) debt financings from Borrower's investors so long as all such Indebtedness shall constitute Subordinated Debt, (d) reasonable and customary compensation arrangements and benefit plans for officers, and other employees of Borrower approved by the Board, (e) reasonable and customary compensation arrangements for fees and costs paid to members of the Board in the ordinary course of business, and (f) Investments of the type described in and permitted under clauses (g) and/or (h) of the definition of "Permitted Investments" herein.

6.9 Subordinated Debt. Except as expressly permitted under the terms of the subordination, intercreditor, or other similar agreement to which any Subordinated Debt is subject: (a) make or permit any payment on such Subordinated Debt; (b) amend any provision in any document relating to such Subordinated Debt which would increase the amount thereof, or (c) provide for earlier or greater principal, interest, or other payments thereon, or adversely affect the subordination thereof to Obligations owed to Bank in contravention of the terms of such the subordination, intercreditor, or other similar agreement.

6.10 Compliance. (a) Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of any Credit Extension for that purpose; (b)(i) fail to meet the minimum funding requirements of ERISA, (ii) permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur, (iii) fail to comply with the Federal Fair Labor Standards Act or (iv) violate any other law or regulation, if the foregoing subclauses (i) through (iv), individually or in the aggregate, could reasonably be expected to have a material adverse effect on Borrower's business or operations, or permit any of its Subsidiaries to do so; or (c) withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the

occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any material liability of Borrower, including any material liability to the Pension Benefit Guaranty Corporation or its successors or any other Governmental Authority.

6.11 Cash and Cash Equivalents held by Foreign Subsidiaries. The aggregate value of cash and Cash Equivalents held by all Foreign Subsidiaries of Borrower to exceed Two Million Five Hundred Thousand Dollars ($2,500,000) for more than five (5) Business Days in each calendar month.

6.12 Value of Assets held by Foreign Subsidiaries. The aggregate value of the assets owned by the Foreign Subsidiaries of Borrower shall not exceed twenty percent (20%) of the aggregate value of all assets owned by the Borrower and its Subsidiaries.

6.13 Redemption of Permitted Convertible Debt. Exercise any redemption right with respect to any Permitted Convertible Debt upon satisfaction of a condition related to the stock price of the Borrower's common stock, unless the Redemption Conditions are satisfied in respect of such redemption.

7. EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "**Event of Default**") under this Agreement:

7.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on any Credit Extension on its due date, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day cure period shall not apply to payments due on the Revolving Line Maturity Date or Term Loan Maturity Date), in each unless such late payment is due to Bank's failure to auto-debit such payment when sufficient funds were contained in the Designated Deposit Account (or if insufficient funds are contained therein, or if an Event of Default has occurred and is continuing, any of Borrower's other accounts at Bank). During the cure period, the failure to make or pay any payment specified under clause (b) hereunder is not an Event of Default (but no Credit Extension will be made during the cure period);

7.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Section 5 (other than Sections 5.2 (Government Compliance), 5.12 (Litigation Cooperation), 5.15 (Inventory; Returns) and 5.16 (Further Assurances)) or violates any covenant in Section 6; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Documents, and as to any default (other than those specified in this Section 6.11) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default (but no Credit Extensions shall be made during such cure period). Cure periods provided under this section shall not apply, among other things, to financial covenants or any other covenants that are required to be satisfied, completed or tested by a date certain or any covenants set forth in clause (a) above;

7.3 Material Adverse Change. A Material Adverse Change occurs;

7.4 Attachment; Levy; Restraint on Business.

(a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or any Subsidiary with a value in excess of Two Hundred Thousand Dollars ($200,000), or (ii) a notice of lien or levy in an amount in excess of Two Hundred Thousand Dollars ($200,000), is filed against any of Borrower's or any of its Subsidiaries' assets by any Governmental Authority, and the same under subclauses (i) and (ii) hereof

are not, within fifteen (15) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); provided, however, no Credit Extensions shall be made during any fifteen (15) day cure period; or

(b) (i) any material portion of Borrower's or any of its Subsidiaries' assets with a value in excess of Two Hundred Thousand Dollars ($200,000), is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower or any of its Subsidiaries from conducting all or any material part of its business;

7.5 Insolvency. (a) Borrower or Borrower and of its Subsidiaries (taken as a whole) is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower or any of its Subsidiaries begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower or any of its Subsidiaries and is not dismissed or stayed within forty-five (45) days (but no Credit Extensions shall be made while any of the conditions described in clause (a) exist and/or until any Insolvency Proceeding is dismissed);

7.6 Other Agreements. There is, under any agreement to which Borrower, any of Borrower's Subsidiaries, or any Guarantor is a party with a third party or parties, (a) any default by Borrower (after applicable grace and/or cure periods) resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount individually or in the aggregate in excess of Five Hundred Thousand Dollars ($500,000); or (b) any breach or default by Borrower, any of Borrower's Subsidiaries, or Guarantor the result of which could reasonably be expected to have a material adverse effect on Borrower's, any of Borrower's Subsidiaries', or any Guarantor's business or operations (taken as a whole)

7.7 Judgments; Penalties. One or more fines, penalties or final judgments, orders or decrees for the payment of money in an amount, individually or in the aggregate, of at least Five Hundred Thousand Dollars ($500,000)(not covered by independent third-party insurance as to which liability has been accepted by such insurance carrier) shall be rendered against Borrower or any of its Subsidiaries by any Governmental Authority, and the same are not, within ten (10) days after the entry, assessment or issuance thereof, discharged, satisfied or paid, or after execution thereof, or stayed pending appeal, or such judgments are not discharged, satisfied or paid prior to the expiration of any such stay (provided that no Credit Extensions will be made prior to the discharge, satisfaction, payment, or stay of such fine, penalty, judgment, order or decree);

7.8 Misrepresentations. Borrower or any of its Subsidiaries or any Responsible Person acting for Borrower or any of its Subsidiaries knowingly makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Bank or to induce Bank to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made (it being agreed and acknowledged by Bank that the projections and forecasts provided by Borrower or any of its Subsidiaries in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results);

7.9 Subordinated Debt. If: (a) any document, instrument, or agreement evidencing any Subordinated Debt shall for any reason be revoked or invalidated or otherwise cease to be in full force and effect (other than in accordance with the terms of such document, instrument or agreement) or any Person (other than Bank)) shall be in breach thereof or contest in any manner the validity or enforceability thereof or deny that it has any further liability or obligation thereunder; (b) a default or event of default (however defined) has occurred under any document, instrument, or agreement evidencing any Subordinated Debt, which default shall not have been cured or waived within any applicable grace period; or (c) the Obligations shall for any reason be subordinated or shall not have the priority contemplated by the applicable subordination or intercreditor agreement;

7.10 Lien Priority. There is a material impairment in the perfection or priority of Bank's security interest in the Collateral (unless such failure is caused by Bank's gross negligence or willful misconduct);

7.11 Guaranty. (a) Any guaranty of any Obligations terminates or ceases for any reason to be in full force and effect (except due to termination in accordance with the terms of such guaranty); (b) any Guarantor does

not perform any material obligation or covenant under any guaranty of the Obligations; (c) any circumstance described in Sections 7.3, 7.4, 7.5, 7.6, 7.7, or 7.8 of this Agreement occurs with respect to any Guarantor (subject to the applicable cure and grace periods herein), (d) the death, liquidation, winding up, or termination of existence of any Guarantor; or (e)a material impairment in the perfection or priority of Bank's Lien in the collateral provided by Guarantor or in the value of such collateral ; or

7.12 Governmental Approvals. Any Governmental Approval shall have been (a) revoked, rescinded, suspended, modified in an adverse manner or not renewed in the ordinary course for a full term or (b) subject to any decision by a Governmental Authority that designates a hearing with respect to any applications for renewal of any of such Governmental Approval or that could result in the Governmental Authority taking any of the actions described in clause (a) above, and such decision or such revocation, rescission, suspension, modification or non-renewal (i) causes, or could reasonably be expected to cause, a Material Adverse Change, or (ii) materially and adversely affects the legal qualifications of Borrower or any of its Subsidiaries to hold such Governmental Approval in any applicable jurisdiction and such revocation, rescission, suspension, modification or non-renewal could reasonably be expected to materially and adversely affect the status of or legal qualifications of Borrower or any of its Subsidiaries to hold any Governmental Approval in any other jurisdiction that is material to the operation of Borrower's business.

8. BANK'S RIGHTS AND REMEDIES

8.1 Rights and Remedies. Upon the occurrence and during the continuance of an Event of Default, Bank may, without notice or demand, do any or all of the following:

(a) declare all Obligations immediately due and payable (but if an Event of Default described in Section 7.5 occurs all Obligations are immediately due and payable without any action by Bank);

(b) stop advancing money or extending credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Bank;

(c) demand that Borrower (i) deposit cash with Bank in an amount equal to at least (A) one hundred and five percent (105.0%) of the aggregate face amount of any Letters of Credit denominated in Dollars remaining undrawn, and (B) one hundred and fifteen percent (115.0%) of the Dollar Equivalent of the aggregate face amount of any Letters of Credit denominated in a Foreign Currency remaining undrawn (plus, in each case, all interest, fees, and costs due or estimated by Bank to become due in connection therewith), to secure all of the Obligations relating to such Letters of Credit, as collateral security for the repayment of any future drawings under such Letters of Credit, and Borrower shall forthwith deposit and pay such amounts, and (ii) pay in advance all letter of credit fees scheduled to be paid or payable over the remaining term of any Letters of Credit;

(d) terminate any FX Contracts (it being understood and agreed that (i) Bank is not obligated to deliver the currency which Borrower has contracted to receive under any FX Contract, and Bank may cover its exposure for any FX Contracts by purchasing or selling currency in the interbank market as Bank deems appropriate; (ii) Borrower shall be liable for all losses, damages, costs, margin obligations and expenses incurred by Bank arising from Borrower's failure to satisfy its obligations under any FX Contract or the execution of any FX Contract; and (iii) Bank shall not be liable to Borrower for any gain in value of a FX Contract that Bank may obtain in covering Borrower's breach);

(e) verify the amount of, demand payment of and performance under, and collect any Accounts and General Intangibles, settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Bank considers advisable, and notify any Person owing Borrower money of Bank's security interest in such funds;

(f) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Bank requests and make it available as Bank designates. Bank may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior

or superior to its security interest and pay all expenses incurred. Borrower grants Bank a license to enter and occupy any of its premises, without charge, to exercise any of Bank's rights or remedies;

(g) apply to the Obligations any (i) balances and deposits of Borrower it holds, or (ii) amount held by Bank owing to or for the credit or the account of Borrower;

(h) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. For use solely upon the occurrence and during the continuation of an Event of Default, Bank is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, Patents, Copyrights, mask works, rights of use of any name, trade secrets, trade names, Trademarks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section 8.1, Borrower's rights under all licenses and all franchise agreements inure to Bank's benefit;

(i) place a "hold" on any account maintained with Bank and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

(j) demand and receive possession of Borrower's Books; and

(k) exercise all rights and remedies available to Bank under the Loan Documents or at law or equity, including all remedies provided under the Code or any Applicable Law (including disposal of the Collateral pursuant to the terms thereof).

8.2 Power of Attorney. Borrower hereby irrevocably appoints Bank as its true and lawful attorney-in-fact, (a) exercisable only following the occurrence and during the continuance of an Event of Default, to: (i) endorse Borrower's name on any checks, payment instruments, or other forms of payment or security; (ii) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (iii) demand, collect, sue, and give releases to any Account Debtor for monies due, settle and adjust disputes and claims about the Accounts directly with Account Debtors, and compromise, prosecute, or defend any action, claim, case, or proceeding about any Collateral (including filing a claim or voting a claim in any bankruptcy case in Bank's or Borrower's name, as Bank chooses); (iv) make, settle, and adjust all claims under Borrower's insurance policies; (v) pay, contest or settle any Lien, charge, encumbrance, security interest, or other claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (vi) transfer the Collateral into the name of Bank or a third party as the Code permits; and (b) regardless of whether an Event of Default has occurred, to sign Borrower's name on any documents necessary to perfect or continue the perfection of Bank's security interest in the Collateral. Bank's foregoing appointment as Borrower's attorney in fact, and all of Bank's rights and powers, coupled with an interest, are irrevocable until such time as all Obligations (other than inchoate indemnity obligations) have been paid in full in cash, Bank is under no further obligation to make Credit Extensions and the Loan Documents have been terminated. Bank shall not incur any liability in connection with or arising from the exercise of such power of attorney and shall have no obligation to exercise any of the foregoing rights and remedies.

8.3 Protective Payments. If Borrower fails to obtain the insurance called for by Section 5.8 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this Agreement or any other Loan Document or which may be required to preserve the Collateral, Bank may obtain such insurance or make such payment, and all amounts so paid by Bank are Bank Expenses and immediately due and payable, bearing interest at the then highest rate applicable to the Obligations, and secured by the Collateral. Bank will make reasonable efforts to provide Borrower with notice of Bank obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Bank are deemed an agreement to make similar payments in the future or Bank's waiver of any Event of Default.

8.4 Application of Payments and Proceeds. If an Event of Default has occurred and is continuing, Bank shall have the right to apply in any order any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations in such order as Bank shall determine in its sole discretion. Any surplus shall be paid to

Borrower or other Persons legally entitled thereto; Borrower shall remain liable to Bank for any deficiency. Following the occurrence and during the continuation of an Event of Default, if Bank, in its commercially reasonable discretion, directly or indirectly, enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Bank shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Bank of cash therefor.

8.5 Bank's Liability for Collateral. Bank's sole duty with respect to the custody, safekeeping and physical preservation of the Collateral in its possession or under its control, under Section 9-207 of the Code or otherwise, shall be to deal with it in the same manner as Bank deals with its own property consisting of similar instruments or interests. Borrower bears all risk of loss, damage or destruction of the Collateral.

8.6 No Waiver; Remedies Cumulative. Bank's failure, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Bank thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by the party granting the waiver and then is only effective for the specific instance and purpose for which it is given. Bank's rights and remedies under this Agreement and the other Loan Documents are cumulative. Bank has all rights and remedies provided under the Code, by law, or in equity. Bank's exercise of one right or remedy is not an election and shall not preclude Bank from exercising any other remedy under this Agreement or other remedy available at law or in equity, and Bank's waiver of any Event of Default is not a continuing waiver. Bank's delay in exercising any remedy is not a waiver, election, or acquiescence.

8.7 Demand Waiver. Borrower waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Bank on which Borrower is liable.

9. NOTICES

All notices, consents, requests, approvals, demands, or other communication by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by electronic mail; (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address or email address indicated below; provided that, for clause (b), if such notice, consent, request, approval, demand or other communication is not sent during the normal business hours of the recipient, it shall be deemed to have been sent at the opening of business on the next Business Day of the recipient. Bank or Borrower may change its mailing or electronic mail address by giving the other party written notice thereof in accordance with the terms of this Section 9.

If to Borrower:

SI-Bone, Inc.
471 El Camino Real, Suite 101
Santa Clara, CA 95050
Attn: Laura Francis, CEO; and
Anshul Maheshwari, CFO
Email: lfrancis@si-bone.com; and
Anshul.Maheshwari@si-bone.com

with a copy to (which shall not constitute notice):

Cooley LLP
55 Hudson Yards
New York, New York, 10001-2157
Attn: Patrick Flanagan
Email: pflanagan@cooley.com

If to Bank: Silicon Valley Bank
505 Howard Street, Floor 3
San Francisco, CA 94105
Attn: Mark Davis
Email: mdavis@svb.com

with a copy to (which shall not constitute notice):

DLA Piper LLP (US)
401 B Street, Suite 1700
San Diego, California 92101
Attn: Matt Schwartz, Esq.
Email: matt.schwartz@us.dlapiper.com

10. CHOICE OF LAW, VENUE AND JURY TRIAL WAIVER; JUDICIAL REFERENCE

Except as otherwise expressly provided in any of the Loan Documents, California law governs the Loan Documents without regard to principles of conflicts of law that would require the application of the laws of another jurisdiction. Borrower and Bank each irrevocably and unconditionally submit to the exclusive jurisdiction of the State and Federal courts in Santa Clara County, California; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Bank from bringing suit or taking other legal action in any other jurisdiction with respect to the Loan Documents or to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Bank. Borrower expressly, irrevocably and unconditionally submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby irrevocably and unconditionally waives, to the fullest extent permitted by Applicable Law, any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby irrevocably and unconditionally consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in, or subsequently provided by Borrower in accordance with, Section 9 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND BANK EACH WAIVES ITS RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION UNDER THIS AGREEMENT, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR THE PARTIES HERETO TO ENTER INTO THIS AGREEMENT. EACH PARTY HERETO HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY, if the above waiver of the right to a trial by jury is not enforceable, the parties hereto agree that any and all disputes or controversies of any nature between them arising at any time shall be decided by a reference to a private judge, mutually selected by the parties (or, if they cannot agree, by the Presiding Judge of the Santa Clara County, California Superior Court) appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts), sitting without a jury, in Santa Clara County, California; and the parties hereby submit to the jurisdiction of such court. The reference proceedings shall be conducted pursuant to and in accordance with the provisions of California Code of Civil Procedure Sections 638 through 645.1, inclusive. The private judge shall have the power, among others, to grant provisional relief, including without limitation, entering temporary restraining orders, issuing preliminary and permanent injunctions and appointing receivers. All such proceedings shall be closed to the public and confidential and all records relating thereto shall be permanently sealed. If during the course of any dispute, a party desires to seek provisional relief, but a judge has not been appointed at that point pursuant to the judicial reference procedures, then such party may apply to the Santa Clara County, California Superior Court

for such relief. The proceeding before the private judge shall be conducted in the same manner as it would be before a court under the rules of evidence applicable to judicial proceedings. The parties shall be entitled to discovery which shall be conducted in the same manner as it would be before a court under the rules of discovery applicable to judicial proceedings. The private judge shall oversee discovery and may enforce all discovery rules and orders applicable to judicial proceedings in the same manner as a trial court judge. The parties agree that the selected or appointed private judge shall have the power to decide all issues in the action or proceeding, whether of fact or of law, and shall report a statement of decision thereon pursuant to California Code of Civil Procedure Section 644(a). Nothing in this paragraph shall limit the right of any party at any time to exercise self-help remedies, foreclose against collateral, or obtain provisional remedies. The private judge shall also determine all issues relating to the applicability, interpretation, and enforceability of this paragraph.

This Section 10 shall survive the termination of this Agreement and the repayment of all Obligations.

11. GENERAL PROVISIONS

11.1 Termination Prior to Revolving Line Maturity Date or Term Loan Maturity Date; Survival. All covenants, representations and warranties made in this Agreement shall continue in full force until this Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations) have been satisfied. So long as Borrower has satisfied the Obligations (other than inchoate indemnity obligations, and any other obligations which, by their terms, are to survive the termination of this Agreement and the repayment of all Obligations, and any Obligations under Bank Services Agreements that are cash collateralized in accordance with Section 3.1 of this Agreement), this Agreement may be terminated prior to the Revolving Line Maturity Date and the Term Loan Maturity Date by Borrower, effective three (3) Business Days after written notice of termination is given to Bank. Those obligations that are expressly specified in this Agreement as surviving this Agreement's termination and the repayment of all Obligations shall continue to survive notwithstanding this Agreement's termination and the repayment of all Obligations.

11.2 Successors and Assigns. This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign or transfer this Agreement or any rights or obligations under it without Bank's prior written consent (which may be granted or withheld in Bank's sole discretion) and any other attempted assignment or transfer by Borrower shall be null and void. Bank has the right, without the consent of or notice to Borrower, to sell, transfer, assign, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights, and benefits under this Agreement and the other Loan Documents. Notwithstanding the foregoing, or anything to the contrary herein, so long as no Event of Default shall have occurred and is continuing, Bank shall not assign its interest in the Loan Documents to any Person who is (a) a competitor of Borrower, whether as an operating company or direct or indirect parent with voting control over such operating company, or (b) a vulture fund or distressed debt fund.

11.3 Indemnification.

(a) General Indemnification. Borrower shall indemnify, defend and hold Bank and its Affiliates and the partners, directors, officers, employees, agents, trustees, administrators, managers, advisors and representatives of Bank and its Affiliates (each, an "**Indemnified Person**") harmless against: all losses, claims, damages, liabilities and related expenses (including Bank Expenses and the reasonable fees, charges and disbursements of any counsel for any Indemnified Person) (collectively, "**Claims**") arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document or any agreement or instrument contemplated hereby or thereby, the performance by the parties hereto of their respective obligations hereunder or thereunder or the consummation of the transactions contemplated hereby or thereby, (ii) any Credit Extension or the use or proposed use of the proceeds therefrom, (iii) any actual or alleged presence or release of hazardous materials on or from any property owned or operated by Borrower or any of its Subsidiaries, or any environmental liability related in any way to Borrower or any of its Subsidiaries, or (iv) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory, whether brought by a third party or by Borrower, and regardless of whether any Indemnified Person is a party thereto; provided that such indemnity shall not, as to any Indemnified Person, be available to the extent that such losses, claims, damages, liabilities or related expenses are determined by a court of competent jurisdiction by final

and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnified Person. All amounts due under this Section 11.3 shall be payable promptly after demand therefor.

(b) Waiver of Consequential Damages, Etc. To the fullest extent permitted by Applicable Law, Borrower shall not assert, and hereby waives, any claim against any Indemnified Person, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) or any loss of profits arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, any Credit Extension, or the use of the proceeds thereof. No Indemnified Person shall be liable for any damages arising from the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby.

This Section 11.3 shall survive the termination of this Agreement and the repayment of all Obligations until all statutes of limitation with respect to the Claims, losses, and expenses for which indemnity is given shall have run.

11.4 Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

11.5 Severability of Provisions. Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

11.6 Amendments in Writing; Waiver; Integration. No purported amendment or modification of any Loan Document, or waiver, discharge or termination of any obligation under any Loan Document, shall be effective unless, and only to the extent, expressly set forth in a writing signed by each party hereto. Without limiting the generality of the foregoing, no oral promise or statement, nor any action, inaction, delay, failure to require performance or course of conduct shall operate as, or evidence, an amendment, supplement or waiver or have any other effect on any Loan Document. Any waiver granted shall be limited to the specific circumstance expressly described in it, and shall not apply to any subsequent or other circumstance, whether similar or dissimilar, or give rise to, or evidence, any obligation or commitment to grant any further waiver. The Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of the Loan Documents merge into the Loan Documents.

11.7 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Agreement. Delivery of an executed signature page of this Agreement by electronic mail transmission shall be effective as delivery of a manually executed counterpart hereof.

11.8 Confidentiality. Bank agrees to maintain the confidentiality of Information (as defined below), except that Information may be disclosed (a) to Bank's Subsidiaries and Affiliates and their respective employees, directors, agents, attorneys, accountants and other professional advisors (collectively, "**Representatives**" and, together with Bank, collectively, "**Bank Entities**"), provided that such Bank Entities are subject to the same confidentiality provisions herein; (b) to prospective transferees, assignees, credit providers or purchasers of Bank's interests under or in connection with this Agreement and their Representatives (provided, however, Bank shall use obtain any such prospective transferee's, assignee's, credit provider's, purchaser's or their Representatives' agreement to the terms of this provision or substantially similar terms); (c) as required by law, regulation, subpoena, or other order; (d) to Bank's regulators or as otherwise required or requested in connection with Bank's examination or audit; (e) in connection with the exercise of remedies under the Loan Documents or any action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder; and (f) to third-party service providers of Bank so long as such service providers have executed a confidentiality agreement with Bank with terms no less restrictive than those contained herein. "**Information**" means all information received from Borrower and its agents regarding Borrower or its business, in each case other than information that is either: (i) in the public domain or in Bank's possession when disclosed to Bank, or becomes part of the public domain (other than as a result of its disclosure by Bank in violation of this Agreement) after disclosure to Bank; or (ii) disclosed to Bank by a third party, if Bank does not know that the third party is prohibited from disclosing the information.

11.9 Electronic Execution of Documents. The words "execution," "signed," "signature" and words of like import in any Loan Document shall be deemed to include electronic signatures, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any Applicable Law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

11.10 Right of Setoff. Borrower hereby grants to Bank a Lien and a right of setoff as security for all Obligations to Bank, whether now existing or hereafter arising upon and against all deposits, credits, collateral and property, now or hereafter in the possession, custody, safekeeping or control of Bank or any entity under the control of Bank (including a subsidiary of Bank) or in transit to any of them, and other obligations owing to Bank or any such entity. At any time after the occurrence and during the continuance of an Event of Default, without demand or notice, Bank may setoff the same or any part thereof and apply the same to any liability or Obligation of Borrower even though unmatured and regardless of the adequacy of any other collateral securing the Obligations. ANY AND ALL RIGHTS TO REQUIRE BANK TO EXERCISE ITS RIGHTS OR REMEDIES WITH RESPECT TO ANY OTHER COLLATERAL WHICH SECURES THE OBLIGATIONS, PRIOR TO EXERCISING ITS RIGHT OF SETOFF WITH RESPECT TO SUCH DEPOSITS, CREDITS OR OTHER PROPERTY OF BORROWER, ARE HEREBY KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVED.

11.11 Captions and Section References. The headings used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement. Unless indicated otherwise, section references herein are to sections of this Agreement.

11.12 Construction of Agreement. The parties hereto mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this Agreement. In cases of uncertainty this Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

11.13 Relationship. The relationship of the parties to this Agreement is determined solely by the provisions of this Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

11.14 Third Parties. Nothing in this Agreement, whether express or implied, is intended to: (a) confer any benefits, rights or remedies under or by reason of this Agreement on any Persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any Person not an express party to this Agreement; or (c) give any Person not an express party to this Agreement any right of subrogation or action against any party to this Agreement.

11.15 Anti-Terrorism Law. Bank hereby notifies Borrower that, pursuant to the requirements of Anti-Terrorism Law, Bank may be required to obtain, verify and record information that identifies Borrower, which information may include the name and address of Borrower and other information that will allow Bank to identify Borrower in accordance with Anti-Terrorism Law. Borrower hereby agrees to take any action necessary to enable Bank to comply with the requirements of Anti-Terrorism Law.

12. ACCOUNTING TERMS AND OTHER DEFINITIONS

12.1 Accounting and Other Terms.

(a) Accounting terms not defined in this Agreement shall be construed following GAAP, except for non-compliance with FAS 123R with respect to monthly financial statements. Calculations and determinations must be made following GAAP (except for (a) non-compliance with FAS 123R with respect to monthly financial statement), provided that if at any time any change in GAAP would affect the computation of any financial ratio or requirement set forth in any Loan Document, and either Borrower or Bank shall so request, Borrower and Bank shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in GAAP; provided, further, that, until so amended, (i) such ratio or requirement shall continue to be computed in accordance with GAAP prior to such change therein and (ii) Borrower shall provide Bank financial statements and other documents required under this Agreement or as reasonably requested hereunder setting forth a

reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in GAAP.

(b) As used in the Loan Documents: (i) the words "shall" or "will" are mandatory, the word "may" is permissive, the word "or" is not exclusive, the words "includes" and "including" are not limiting, the singular includes the plural, and numbers denoting amounts that are set off in brackets are negative; (ii) the term "continuing" in the context of an Event of Default means that the Event of Default has not been remedied (if capable of being remedied) or waived; and (iii) whenever a representation or warranty is made to Borrower's knowledge or awareness, to the "best of" Borrower's knowledge, or with a similar qualification, knowledge or awareness means the actual knowledge, after reasonable investigation, of any Responsible Officer.

12.2 Definitions. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in this Section 12.2. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein. As used in this Agreement, the following capitalized terms have the following meanings:

"**Account**" is, as to any Person, any "account" of such Person as "account" is defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to such Person.

"**Account Debtor**" is any "account debtor" as defined in the Code with such additions to such term as may hereafter be made.

"**Adjusted EBITDA**" shall mean, for Borrower and its Subsidiaries, with respect to any period, the sum of (a) Net Income, *plus* (b) to the extent deducted or added to the calculation of Net Income, (i) Interest income, Interest Expenses, (ii) depreciation expense and amortization expense, (iii) income tax expense, (iv) non-cash stock compensation, and (v) any other one-time restructuring or non-cash charges.

"**Adjusted Quick Ratio**" is the ratio of (a) Quick Assets to (b) the sum of (i) Current Liabilities minus (ii) the current portion of Deferred Revenue.

"**Administrator**" is an individual that is named:

(a) as an "Administrator" in the "SVB Online Services" form completed by Borrower with the authority to determine who will be authorized to use SVB Online Services (as defined in Bank's Online Banking Agreement as in effect from time to time) on behalf of Borrower; and

(b) as an Authorized Signer of Borrower in an approval by the Board.

"**Advance**" or "**Advances**" means a revolving credit loan (or revolving credit loans) under the Revolving Line.

"**Affiliate**" is, with respect to any Person, each other Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person's senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person's managers and members.

"**Agreement**" is defined in the preamble hereof.

"**Anti-Terrorism Law**" means any law relating to terrorism or money-laundering, including Executive Order No. 13224 and the USA Patriot Act.

"**Applicable Law**" means all applicable provisions of constitutions, laws, statutes, ordinances, rules, treaties, regulations, permits, licenses, approvals, interpretations and orders of courts or Governmental Authorities and all orders and decrees of all courts and arbitrators.

"**Authorized Signer**" means any individual listed in Borrower's Borrowing Resolution who is authorized to execute the Loan Documents, including making (and executing if applicable) any Credit Extension request, on behalf of Borrower.

"**Availability Amount**" is the lesser of (a) the Revolving Line or (b) the Borrowing Base, minus the sum of all outstanding principal amounts of any Advances.

"**Bank**" is defined in the preamble hereof.

"**Bank Entities**" is defined in Section 11.8.

"**Bank Expenses**" are all reasonable audit fees, costs and reasonable expenses (including reasonable, out-of-pocket and documented attorneys' fees and expenses) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred with respect to Borrower or any Guarantor.

"**Bank Services**" are any products, credit services, and/or financial accommodations previously, now, or hereafter provided to Borrower or any of its Subsidiaries by Bank or any Bank Affiliate, including, without limitation, any letters of credit, cash management services (including, without limitation, merchant services, direct deposit of payroll, business credit cards, and check cashing services), interest rate swap arrangements, and foreign exchange services as any such products or services may be identified in Bank's various agreements related thereto (each, a "**Bank Services Agreement**").

"**Bank Services Agreement**" is defined in the definition of Bank Services.

"**Board**" is Borrower's board of directors or equivalent governing body.

"**Borrower**" is set forth on Schedule I hereto.

"**Borrower's Books**" are all Borrower's books and records including ledgers, federal and state tax returns, records regarding Borrower's assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

"**Borrowing Base**" is eighty percent (80%) of Eligible Accounts, as determined by Bank from Borrower's most recent Borrowing Base Statement; provided, however, that Bank has the right to decrease the foregoing percentages in its commercially reasonable discretion to mitigate the impact of events, conditions, contingencies, or risks which would reasonably be expected to adversely affect the Collateral or its value, following thirty (30) days prior written notice to Borrower.

"**Borrowing Base Statement**" is that certain statement of the value of certain Collateral in the form specified by Bank to Borrower from time to time.

"**Borrowing Resolutions**" are, with respect to any Person, those resolutions adopted by such Person's board of directors (and, if required under the terms of such Person's Operating Documents, stockholders) and delivered by such Person to Bank approving the Loan Documents to which such Person is a party and the transactions contemplated thereby, together with a certificate executed by its secretary on behalf of such Person certifying (a) such Person has the authority to execute, deliver, and perform its obligations under each of the Loan Documents to which it is a party, (b) that set forth as a part of or attached as an exhibit to such certificate is a true, correct, and complete copy of the applicable resolutions then in full force and effect authorizing and ratifying the execution, delivery, and performance by such Person of the Loan Documents to which it is a party, (c) the name(s) of the Person(s) authorized to execute the Loan Documents, including making (and executing if applicable) any Credit Extension request, on behalf of such Person, together with a sample of the true signature(s) of such Person(s), and (d) that Bank may conclusively rely on such certificate unless and until such Person shall have delivered to Bank a further certificate canceling or amending such prior certificate.

"**Business Day**" is a day other than a Saturday, Sunday or other day on which commercial banks in the State of California are authorized or required by law to close, except that if any determination of a "Business Day" shall relate to an FX Contract, the term "Business Day" shall be a FX Business Day.

"**Cash Collateral Account**" is defined in Section 5.4(c).

"**Cash Equivalents**" are (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; (c) Bank's certificates of deposit issued maturing no more than one (1) year after issue; (d) long-term securities having a rating minimum of A-/A3 from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; and (e) money market funds at least ninety-five percent (95.0%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (d) of this definition.

"**Change in Control**" means (a) at any time, any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act), shall become, or obtain rights (whether by means of warrants, options or otherwise) to become, the "beneficial owner" (as defined in Rules 13(d)-3 and 13(d)-5 under the Exchange Act), directly or indirectly, of forty-nine percent (49.0%) or more of the ordinary voting power for the election of directors, partners, managers and members, as applicable, of Borrower (determined on a fully diluted basis) other than by the sale of Borrower's equity securities in a public offering or to venture capital or private equity investors so long as Borrower identifies to Bank the venture capital or private equity investors at least seven (7) Business Days prior to the closing of the transaction and provides to Bank a description of the material terms of the transaction; (b) during any period of twelve (12) consecutive months, a majority of the members of the Board of Borrower cease to be composed of individuals (i) who were members of that board or equivalent governing body on the first (1st) day of such period, (ii) whose election or nomination to that board or equivalent governing body was approved by individuals referred to in clause (i) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body or (iii) whose election or nomination to that board or other equivalent governing body was approved by individuals referred to in clauses (i) and (ii) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body; or (c) at any time, Borrower shall cease to own and control, of record and beneficially, directly or indirectly, one hundred percent (100.0%) of each class of outstanding stock, partnership, membership, or other ownership interest or other equity securities of each Subsidiary of Borrower free and clear of all Liens (except Permitted Liens and except dissolutions or transfers permitted pursuant to Sections 6.2 and 6.3 of this Agreement).

"**Change in Law**" means the occurrence, after the Effective Date, of: (a) the adoption or taking effect of any law, rule, regulation or treaty; (b) any change in Applicable Law or in the administration, interpretation, implementation or application thereof by any Governmental Authority; or (c) the making or issuance of any request, rule, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that notwithstanding anything herein to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (ii) all requests, rules, guidelines or directives promulgated by Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "Change in Law", regardless of the date enacted, adopted or issued.

"**Claims**" is defined in Section 11.3.

"**Code**" is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the State of California; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Bank's Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the State of California, the term "Code" shall mean the Uniform Commercial Code as enacted and in effect in such other

jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

"**Collateral**" consists of all of Borrower's right, title and interest in and to the following personal property:

(a) (i) all goods, Accounts (including health-care receivables), Equipment, Inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, General Intangibles (except as provided below), commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, certificates of deposit, fixtures, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, securities accounts, securities entitlements and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and (ii) all Borrower's Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

(b) Notwithstanding the foregoing, the Collateral does not include any of the following (now existing or hereafter arising, owned or created):

(i) any Intellectual Property; provided, however, the Collateral shall include all Accounts and all proceeds of Intellectual Property. If a judicial authority (including a U.S. Bankruptcy Court) would hold that a security interest in the underlying Intellectual Property is necessary to have a security interest in such Accounts and such property that are proceeds of Intellectual Property, then the Collateral shall automatically, and effective as of the Effective Date, include the Intellectual Property to the extent necessary to permit perfection of Bank's security interest in such Accounts and such other property of Borrower that are proceeds of the Intellectual Property; and

(ii) any interest of Borrower as a lessee or sublessee under a real property lease or an Equipment lease if Borrower is prohibited by the terms of such lease from granting a security interest in such lease or under which such an assignment or Lien would cause a default to occur under such lease (but only to the extent that such prohibition is enforceable under all applicable laws including, without limitation, the Code); provided, however, that upon termination of such prohibition, such interest shall immediately become Collateral without any action by Borrower or Bank.

(c) Pursuant to the terms of a certain negative pledge arrangement with Bank, Borrower has agreed not to encumber any of its Intellectual Property in contravention of the terms of such pledge agreement without Bank's prior written consent.

"**Collateral Account**" is any Deposit Account, Securities Account, or Commodity Account.

"**Commodity Account**" is any "commodity account" as defined in the Code with such additions to such term as may hereafter be made.

"**Compliance Statement**" is that certain statement in the form attached hereto as Exhibit A.

"**Connection Income Taxes**" means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

"**Contingent Obligation**" is, for any Person, any direct or indirect liability of that Person for (a) any direct or indirect guaranty by such Person of any indebtedness, lease, dividend, letter of credit, credit card or other obligation of another, (b) any other obligation endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (c) any obligations for undrawn letters of credit for the account of that Person; and (d) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but "Contingent Obligation" does not

include endorsements in the ordinary course of business or any Permitted Call Spread Agreement(s). The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

"**Control Agreement**" is any control agreement entered into among the depository institution at which Borrower maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower maintains a Securities Account or a Commodity Account, Borrower, and Bank pursuant to which Bank obtains control (within the meaning of the Code) over such Deposit Account, Securities Account, or Commodity Account.

"**Copyrights**" are any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret.

"**Credit Extension**" is any Advance, Overadvance, Letter of Credit, FX Contract, amount utilized for cash management services, Term Loan Advance, or any other extension of credit under the Loan Documents by Bank for Borrower's benefit.

"**Currency**" is coined money and such other banknotes or other paper money as are authorized by law and circulate as a medium of exchange.

"**Current Liabilities**" are (a) all obligations and liabilities of Borrower to Bank, plus (b) without duplication of (a) the aggregate amount of Borrower's Total Liabilities that mature within one (1) year (including, for the avoidance of doubt, all Obligations of Borrower to Bank under the Term Loan Advances that mature within one year and Revolving Advances that mature within one year).

"**Default**" means any event which with notice or passage of time or both, would constitute an Event of Default.

"**Default Rate**" is defined in Section 1.2(c).

"**Deferred Revenue**" is all amounts received or invoiced in advance of performance under contracts and not yet recognized as revenue.

"**Deposit Account**" is any "**deposit account**" as defined in the Code with such additions to such term as may hereafter be made.

"**Designated Deposit Account**" is the deposit account with account number xxx-xxxx-9905, established by Borrower with Bank for purposes of receiving Credit Extensions.

"**Division**" means, in reference to any Person which is an entity, the division of such Person into two (2) or more separate Persons, with the dividing Person either continuing or terminating its existence as part of such division, including, without limitation, as contemplated under Section 18-217 of the Delaware Limited Liability Company Act for limited liability companies formed under Delaware law, Section 17-220 of the Delaware Revised Uniform Limited Partnership Act for limited partnerships formed under Delaware law, or any analogous action taken pursuant to any other Applicable Law with respect to any corporation, limited liability company, partnership or other entity.

"**Dollar Equivalent**" is, at any time, (a) with respect to any amount denominated in Dollars, such amount, and (b) with respect to any amount denominated in a Foreign Currency, the equivalent amount therefor in Dollars as determined by Bank at such time on the basis of the then-prevailing rate of exchange in San Francisco, California, for sales of the Foreign Currency for transfer to the country issuing such Foreign Currency.

"**Dollars**," "**dollars**" or use of the sign "$" means only lawful money of the United States and not any other currency, regardless of whether that currency uses the "$" sign to denote its currency or may be readily converted into lawful money of the United States.

"**Effective Date**" is set forth on Schedule I hereto.

"**Eligible Accounts**" means Accounts owing to Borrower which arise in the ordinary course of Borrower's business that meet all Borrower's representations and warranties in Section 4.3, that have been, at the option of Bank, confirmed in accordance with Section 5.4(f) of this Agreement, and are due and owing from Account Debtors deemed creditworthy by Bank in its commercially reasonable discretion. Bank reserves the right, at any time after the First Amendment Effective Date, in its commercially reasonable discretion in each instance, to adjust any of the criteria set forth below and to establish new criteria, following thirty (30) days prior written notice to Borrower. Unless Bank otherwise agrees in writing, Eligible Accounts shall not include:

(a) Accounts (i) for which the Account Debtor is Borrower's Affiliate, officer, employee, investor, or agent, or (ii) that are intercompany Accounts;

(b) Accounts that the Account Debtor has not paid within ninety (90) days of invoice date regardless of invoice payment period terms;

(c) Accounts with credit balances over ninety (90) days from invoice date, to the extent of such credit balances;

(d) Accounts owing from an Account Debtor that exceed Two Hundred Fifty Thousand Dollars ($250,000) if fifty percent (50.0%) or more of the Accounts owing from such Account Debtor have not been paid within ninety (90) days of invoice date;

(e) Accounts owing from an Account Debtor (i) which does not have its principal place of business in the United States or (ii) whose billing address (as set forth in the applicable invoice for such Account) is not in the United States, unless in the case of both (i) and (ii) such Accounts are otherwise approved by Bank in writing, provided, however, that Bank hereby approves the Accounts relating to Device Technologies Belrose which is located in Australia;

(f) Accounts billed from and/or payable to Borrower outside of the United States (sometimes called foreign invoiced accounts);

(g) Accounts in which Bank does not have a first priority, perfected security interest under all Applicable Law, other than Device Technologies Belrose which is located in Australia (solely relative to any failure to obtain a first priority, perfected security interest in any foreign jurisdiction, including Australia);

(h) Accounts billed and/or payable in a Currency other than Dollars;

(i) Accounts owing from an Account Debtor to the extent that Borrower is indebted or obligated in any manner to the Account Debtor (as creditor, lessor, supplier or otherwise - sometimes called "contra" accounts, accounts payable, customer deposits or credit accounts), but only to the extent of such Indebtedness or obligations;

(j) Accounts with or in respect of accruals for marketing allowances, incentive rebates, price protection, cooperative advertising and other similar marketing credits, unless otherwise approved by Bank in writing, but only to the extent of such credits;

(k) Accounts owing from an Account Debtor which is a United States government entity or any department, agency, or instrumentality thereof unless Borrower has assigned its payment rights to Bank and the assignment has been acknowledged under the Federal Assignment of Claims Act of 1940, as amended;

(l) Accounts with customer deposits and/or with respect to which Borrower has received an upfront payment, to the extent of such customer deposit and/or upfront payment;

(m) Accounts for demonstration or promotional equipment, or in which goods are consigned, or sold on a "sale guaranteed", "sale or return", "sale on approval", or other terms if Account Debtor's payment may be conditional;

(n) Accounts owing from an Account Debtor where goods or services have not yet been rendered to the Account Debtor (sometimes called memo billings or pre-billings);

(o) Accounts subject to contractual arrangements between Borrower and an Account Debtor where payments shall be scheduled or due according to completion or fulfillment requirements (sometimes called contracts accounts receivable, progress billings, milestone billings, or fulfillment contracts);

(p) Accounts owing from an Account Debtor the amount of which may be subject to withholding based on the Account Debtor's satisfaction of Borrower's complete performance (but only to the extent of the amount withheld; sometimes called retainage billings);

(q) Accounts subject to trust provisions, subrogation rights of a bonding company, or a statutory trust;

(r) Accounts owing from an Account Debtor that has been invoiced for goods that have not been shipped to the Account Debtor unless Bank, Borrower, and the Account Debtor have entered into an agreement acceptable to Bank wherein the Account Debtor acknowledges that (i) it has title to and has ownership of the goods wherever located, (ii) a bona fide sale of the goods has occurred, and (iii) it owes payment for such goods in accordance with invoices from Borrower (sometimes called "bill and hold" accounts);

(s) Accounts for which the Account Debtor has not been invoiced;

(t) Accounts that represent non-trade receivables or that are derived by means other than in the ordinary course of Borrower's business;

(u) Accounts for which Borrower has permitted Account Debtor's payment to extend beyond ninety (90) days (including Accounts with a due date that is more than ninety (90) days from invoice date);

(v) Accounts arising from chargebacks, debit memos or other payment deductions taken by an Account Debtor;

(w) Accounts arising from product returns and/or exchanges (sometimes called "warranty" or "RMA" accounts);

(x) Accounts in which the Account Debtor disputes liability or makes any claim (but only up to the disputed or claimed amount), or if the Account Debtor is subject to an Insolvency Proceeding (whether voluntary or involuntary), or becomes insolvent, or goes out of business;

(y) Accounts owing from an Account Debtor, whose total obligations to Borrower exceed twenty-five percent (25.0%) of all Accounts, only for the amounts that exceed that percentage, unless Bank approves in writing; and

(z) Accounts for which Bank in its sole discretion determines collection to be doubtful, including, without limitation, accounts represented by "refreshed" or "recycled" invoices.

"**Environmental Laws**" means any Applicable Law (including any permits, concessions, grants, franchises, licenses, agreements or governmental restrictions) relating to pollution or the protection of health, safety or the

environment or the release of any materials into the environment (including those related to hazardous materials, air emissions, discharges to waste or public systems and health and safety matters).

"**Equipment**" is all "equipment" as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"**ERISA**" is the Employee Retirement Income Security Act of 1974, as amended, and its regulations.

"**Event of Default**" is defined in Section 6.11.

"**Exchange Act**" is the Securities Exchange Act of 1934, as amended.

"**Excluded Taxes**" means any of the following Taxes imposed on or with respect to Bank or required to be withheld or deducted from a payment to Bank, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of Bank being organized under the laws of, or having its principal office or its applicable lending office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) U.S. federal withholding Taxes imposed on amounts payable to or for the account of Bank with respect to an applicable interest in a Credit Extension pursuant to a law in effect on the date on which (i) Bank acquires such interest in the Credit Extensions or (ii) Bank changes its lending office, except in each case to the extent that, pursuant to Section 1.6, amounts with respect to such Taxes were payable either to Bank's assignor immediately before Bank became a party hereto or to Bank immediately before it changed its lending office, (c) Taxes attributable to Bank's failure to comply with Section 1.6(e) and/or any reporting and delivery requirements, and (d) any withholding Taxes imposed under FATCA.

"**FATCA**" means Sections 1471 through 1474 of the Internal Revenue Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Internal Revenue Code and any fiscal or regulatory legislation, rules or practices adopted pursuant to any intergovernmental agreement, treaty or convention among Governmental Authorities and implementing such Sections of the Internal Revenue Code.

"**Final Payment**" is a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) due on the earliest to occur of (a) the Term Loan Maturity Date, (b) the repayment of the Term Loan Advance in full, (c) as required pursuant to Section 1.1(c) or 1.1(d), or (d) the termination of this Agreement, in an amount equal to the original aggregate principle amount of the Term Loan Advance extended by Bank to Borrower multiplied by two percent (2.0%).

"**Financial Covenant Measuring Period**" is any period of time (a) commencing on the later to occur of (i) the date on which the aggregate value of the Borrower's unrestricted and unencumbered (except for Liens in favor of Bank) cash and Cash Equivalents held at SVB and SVB's Affiliates falls below [***] Dollars and (ii) January 1, 2024 and (b) terminating on the date on which Borrower has achieved two (2) consecutive quarters of Adjusted EBITDA greater than [***] Dollars. After the termination of a Financial Covenant Measuring Period, if both (X) Borrower's Adjusted EBITDA is equal to or less than [***] Dollars any such fiscal quarter and (Y) the aggregate value of the Borrower's unrestricted and unencumbered (except for Liens in favor of Bank) cash and Cash Equivalents held at SVB and SVB's Affiliates is less than [***] Dollars, then a new Financial Covenant Measuring Period shall start and shall not terminate until Borrower again achieves Adjusted EBITDA Balance greater than [***] Dollars for two (2) new consecutive quarters.

"**Financial Statement Repository**" is L43f1c@svb.com or such other means of collecting information approved and designated by Bank after providing notice thereof to Borrower from time to time.

"**First Amendment Effective Date**" means January 6, 2023.

"**Foreign Currency**" is the lawful money of a country other than the United States.

"**Foreign Subsidiary**" is a Subsidiary that is not an entity organized under the laws of the United States or any territory thereof or the District of Columbia.

"**Funding Date**" is any date on which a Credit Extension is made to or for the account of Borrower which shall be a Business Day.

"**FX Business Day**" is any day when (a) Bank's Foreign Exchange Department is conducting its normal business and (b) the Foreign Currency being purchased or sold by Borrower is available to Bank from the entity from which Bank shall buy or sell such Foreign Currency.

"**FX Contract**" is any foreign exchange contract by and between Borrower and Bank under which Borrower commits to purchase from or sell to Bank a specific amount of Foreign Currency at a set price or on a specified date.

"**GAAP**" is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the date of determination (except for with respect to unaudited financial statements for the absence of footnotes and subject to year-end audit adjustments).

"**General Intangibles**" is all "general intangibles" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all Intellectual Property, claims, income and other tax refunds, security and other deposits, payment intangibles, contract rights, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"**Good Faith Deposit**" is defined in Section 1.3.

"**Governmental Approval**" is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

"**Governmental Authority**" is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

"**Guarantor**" is any Person providing a Guaranty in favor of Bank with respect to the Obligations.

"**Guaranty**" is any guarantee of all or any part of the Obligations, as the same may from time to time be amended, restated, modified or otherwise supplemented.

"**Indebtedness**" is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, (d) Contingent Obligations and (e) other short- and long-term obligations under debt agreements, lines of credit and extensions of credit, provided, however, that in no event shall obligations under any Permitted Call Spread Agreement constitute Indebtedness.

"**Indemnified Person**" is defined in Section 11.3.

"**Indemnified Taxes**" means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of Borrower under any Loan Document and (b) to the extent not otherwise described in clause (a), Other Taxes.

"**Information**" is defined in Section 11.8.

"**Initial Audit**" is Bank's inspection of Borrower's Accounts, the Collateral, and Borrower's Books, with results satisfactory to Bank in its sole discretion.

"**Insolvency Proceeding**" is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, receivership or other relief.

"**Intellectual Property**" means, with respect to any Person, all of such Person's right, title, and interest in and to the following, whether now owned or hereafter acquired or created:

(a) its Copyrights, Trademarks and Patents;

(b) any and all trade secrets and trade secret rights, including, without limitation, any rights to unpatented inventions, know-how and operating manuals;

(c) licenses any and all source code;

(d) any and all design rights which may be available to such Person;

(e) any and all claims for damages by way of past, present and future infringement of any of the foregoing, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the Intellectual Property rights identified above; and

(f) all amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents.

"**Interest Expense**" means for any fiscal period, interest expense (whether cash or non-cash) determined in accordance with GAAP for the relevant period ending on such date, including, in any event, interest expense with respect to any Credit Extension and other Indebtedness of Borrower and its Subsidiaries, including, without limitation or duplication, all commissions, discounts, or related amortization and other fees and charges with respect to letters of credit and bankers' acceptance financing and the net costs associated with interest rate swap, cap, and similar arrangements, and the interest portion of any deferred payment obligation (including leases of all types).

"**Internal Revenue Code**" means the U.S. Internal Revenue Code of 1986, and the rules and regulations promulgated thereunder, each as amended or modified from time to time.

"**Inventory**" is all "**inventory**" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower's custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

"**Investment**" is any beneficial ownership interest in any Person (including stock, partnership, membership, or other ownership interest or other equity securities), and any loan, advance or capital contribution to any Person.

"**Key Person**" is each of Borrower's (i) Chief Executive Officer, and (ii) Chief Financial Officer, as of the Effective Date.

"**Letter of Credit**" is a standby or commercial letter of credit issued by Bank upon request of Borrower based upon an application, guarantee, indemnity, or similar agreement.

"**Lien**" is a claim, mortgage, deed of trust, levy, attachment charge, pledge, hypothecation, security interest or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

"**Loan Documents**" are, collectively, this Agreement and any schedules, exhibits, certificates, notices, and any other documents related to this Agreement, the Perfection Certificate, the Control Agreement, any Bank Services Agreement, any subordination agreement, any note, or notes or guaranties executed by Borrower or any Guarantor, landlord waivers and consents, bailee waivers and consents, and any other present or future agreement by Borrower and/or any Guarantor with or for the benefit of Bank in connection with this Agreement or Bank Services, all as amended, restated, or otherwise modified in accordance with the terms thereof.

"**Material Adverse Change**" is (a) a material impairment in the perfection or priority of Bank's Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations, or condition (financial or otherwise) of Borrower; or (c) a material impairment of the prospect of repayment of any portion of the Obligations when such Obligations are due.

"Net Income" means, as calculated on a consolidated basis for Borrower and its Subsidiaries for any period as at any date of determination, the net profit (or loss), after provision for taxes, of Borrower and its Subsidiaries for such period taken as a single accounting period.

"**Net Revenue**" means, for any period as of any date of determination, Borrower's net revenue calculated in accordance with GAAP.

"**Obligations**" are Borrower's obligations to pay when due any debts, principal, interest, fees, Bank Expenses, the Termination Fee (if applicable), the Revolving Line Commitment Fee, the Prepayment Fee (if applicable), the Final Payment, and other amounts Borrower owes Bank now or later, whether under this Agreement, or the other Loan Documents, or otherwise, including, without limitation, all obligations relating to Bank Services and interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and to perform Borrower's duties under the Loan Documents (but in all cases excluding any equity interests of Bank and/or its Affiliates in Borrower).

"**OFAC**" is the Office of Foreign Assets Control of the United States Department of the Treasury and any successor thereto.

"**Operating Documents**" are, for any Person, such Person's formation documents, as certified by the Secretary of State (or equivalent agency) of such Person's jurisdiction of organization on a date that is no earlier than thirty (30) days prior to the First Amendment Effective Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability company, its limited liability company agreement (or similar agreement), and (c) if such Person is a partnership or limited partnership, its partnership agreement or limited partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

"**Other Connection Taxes**" means, with respect to Bank, Taxes imposed as a result of a present or former connection between Bank and the jurisdiction imposing such Tax (other than connections arising from Bank having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Credit Extension or Loan Document).

"**Other Taxes**" means all present or future stamp, court, documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment.

"**Overadvance**" is defined in Section 1.1.B.

"**Patents**" means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

"**Payment/Advance Form**" is that certain form in the form attached hereto as Exhibit B.

"**Payment Date**" is set forth on Schedule I hereto.

"**Perfection Certificate**" is the updated Perfection Certificate delivered by Borrower on or around the First Amendment Effective Date in connection with this Agreement.

"Permitted Acquisition" or "**Permitted Acquisitions**" means an acquisition by Borrower or any Subsidiary of any Intellectual Property or all or substantially all of the assets of, all of the ownership interests in, or a business line, product line (including rights in respect of any medical device) or unit or division of another Person (including any foreign corporations) for cash consideration (including any purchase price adjustments, indemnity payments and earn-out obligations in connection therewith) up to Ten Million Dollars ($10,000,000) in any fiscal year (or such greater amount as may be agreed with the prior written consent of Bank); *provided* that, with respect to each such acquisition, each of the following conditions shall have been satisfied (or waived by Bank, acting in its commercially reasonable discretion):

(a) no Event of Default shall have occurred and be continuing or would result from the consummation of the proposed acquisition and Bank has received evidence that Borrower is in compliance with all terms and conditions of this Agreement on a pro forma basis after giving effect to such acquisition,

(b) such acquired Person or assets shall be in a similar line of business as is conducted by Borrower as of the Effective Date (or a line of business reasonably related thereto),

(c) such acquisition shall not cause the focus or locations of Borrower's and its Subsidiaries' operations (when taken as a whole) to be located outside of the United States,

(d) such acquisition shall not constitute a hostile acquisition,

(e) any Person acquired as a result of such acquisition shall become a secured Guarantor (or co-borrower) subject to the terms herein, within fifteen (15) Business Days of the consummation of such acquisition,

(f) in connection with such acquisition, neither Borrower nor any of its subsidiaries (including for this purpose, the target of the acquisition) shall acquire or be subject to any Indebtedness or Liens that are not otherwise permitted hereunder;

(g) Borrower shall provide Bank with written notice of the proposed acquisition at least five (5) Business Days prior to the anticipated signing, commitment, or closing date of the proposed acquisition, whichever occurs first;

(h) Borrower shall provide to the Bank not later than five (5) Business Days after the execution thereof, a copy of the executed purchase agreement or similar agreement with respect to any such acquisition;

(i) such acquisition has been approved by the board of directors (or other equivalent legally governing body) of the Person to be acquired,

(j) the entity or assets to be acquired in such acquisition shall not be subject to any Lien other (x) the first priority Liens granted in favor of Bank and (y) Permitted Liens;

(k) all transactions related to such acquisition shall be consummated in all material respects in accordance with applicable law; and

(l) Borrower shall provide to the Bank as soon as available but in any event not later than five (5) Business Days after the execution thereof, a copy of the executed purchase agreement or similar agreement with respect to any such acquisition.

Borrower shall provide to the Bank as soon as available but in any event not later than five (5) Business Days after the execution thereof a certificate of a Responsible Officer of Borrower, in form and substance reasonably satisfactory to Bank, certifying that all of the requirements set forth in this definition have been satisfied or will be satisfied on or prior to the consummation of such acquisition. Notwithstanding the foregoing and for the avoidance of doubt, in no event shall Borrower or any of its Subsidiaries assume any liabilities with respect to any acquisition, including without limitation, any Permitted Indebtedness, in excess of Fifteen Million Dollars ($15,000,000) in aggregate outstanding at any time for such Permitted Acquisitions.

"**Permitted Call Spread Agreements**" means (a) any call option transaction (including, but not limited to, any bond hedge transaction or capped call transaction) pursuant to which the Borrower acquires an option requiring the counterparty thereto to deliver to the Borrower shares of common stock of the Borrower (or other securities or property following a merger event or other change of the common stock of the Borrower), the cash value thereof or a combination thereof from time to time upon exercise of such option entered into by the Borrower in connection with the issuance of Permitted Convertible Debt (such transaction, a "**Bond Hedge Transaction**") and (b) any issued warrants to acquire common stock of the Borrower (or other securities or property following a merger event or other change of the common stock of the Borrower) (whether such warrant is settled in shares, cash or a combination thereof) issued by the Borrower in connection with the issuance of Permitted Convertible Debt and sold by Borrower substantially concurrently with any purchase by Borrower of a Bond Hedge Transaction and settled in (such transaction, a "**Warrant Transaction**"); *provided* that (i) the terms, conditions and covenants of each such call option transaction are customary for agreements of such type, as determined by the Board (or a committee thereof) in good faith, (ii) the purchase price for such Bond Hedge Transaction, less the proceeds received by the Borrower from the sale of any related Warrant Transaction, does not exceed the net proceeds received by the Borrower from the issuance of the related Permitted Convertible Indebtedness at the time of such purchase, and (iii) in the case of clause (b) above, such warrants would be classified as an equity instrument in accordance with GAAP.

"**Permitted Convertible Debt**" means any unsecured notes issued by the Borrower that are convertible into a fixed number (subject to customary anti-dilution adjustments, "make-whole" increases and other customary changes thereto) of shares of common stock of the Borrower (or other securities or property following a merger event or other change of the common stock of the Borrower), cash or any combination thereof (with the amount of such cash or such combination determined by reference to the market price of such common stock or such other securities); *provided* that such Indebtedness must satisfy each of the following conditions: (i) both immediately prior to and after giving effect (including pro forma effect) to the issuance thereof, no Default or Event of Default shall exist or result therefrom, (ii) such Indebtedness matures after, and does not require any scheduled amortization or other scheduled or otherwise required payments of principal prior to, or have a scheduled maturity date earlier than, the date that is ninety one (91) calendar days after the Term Loan Maturity Date and prior to that date, does not provide for or require any payments of principal or any other payments with the exception of semi-annual interest payments, obligations to settle conversions, redemption rights (which, for the avoidance of doubt, will be subject to Section 6.7) and customary obligations to offer to repurchase the notes upon the occurrence of a "fundamental change", (iii) any cross-default or cross-acceleration event of default (each howsoever defined) provision contained therein that relates to indebtedness or other payment obligations of Borrower (or any of its Subsidiaries) (such indebtedness or other payment obligations, a "**Cross-Default Reference Obligation**") contains a cure period of at least thirty (30) calendar days (after written notice to the issuer of such Indebtedness by the trustee or to such issuer and such trustee by holders of at least 25% in aggregate principal amount of such Indebtedness then outstanding) before a default, event of default, acceleration or other event or condition under such Cross-Default Reference Obligation results in an event of default under such cross-default or cross-acceleration provision, (iv) the terms, conditions and covenants (other than pricing terms determined through a customary marketing process) of such Indebtedness must be customary for convertible Indebtedness of such type at the time of issuance (as determined by the Board, or a committee thereof, in good faith) and, (v) such Indebtedness is not guaranteed by any Subsidiary of the Borrower unless the Obligations are guaranteed by such Subsidiary on a secured basis. For the avoidance of doubt, and without limitation of the foregoing, Permitted Convertible Debt shall at all

times be valued at the full stated principle amount thereof and shall not include any reduction or appreciation in value of the shares deliverable upon conversion thereof.

"**Permitted Foreign Subsidiary Accounts**" is defined in Section 5.9(a).

"**Permitted Hedging Agreement**" means any currency agreement, all rate swap transactions or other contract or arrangement designed solely to protect a Person against fluctuations in currency exchange rates and interest rate risk, and any confirmation executed in connection with any such agreement, contract, or arrangement, in each case, entered into by Borrower or any of its Subsidiaries solely to hedge or mitigate the risks of foreign exchange rate fluctuations and interest rate risk and not for any speculative or other purposes; *provided* that such agreement, contract or arrangement shall comply in all respects with the hedging policies or guidelines as are approved by the Board or as are approved by Bank (such approval not to be unreasonably withheld, delayed or conditioned); *provided further*, that all accrued and reasonably expected liabilities of Borrower or its Subsidiaries arising under Permitted Hedging Agreements shall not exceed One Million Dollars ($1,000,000) in the aggregate at any time. For the avoidance of doubt, no Permitted Call Spread Agreement shall constitute a Permitted Hedging Agreement.

"**Permitted Indebtedness**" is:

(a) Borrower's Indebtedness to Bank under this Agreement, the other Loan Documents and under any other agreement with Bank;

(b) Indebtedness existing on the Effective Date which is shown on the Perfection Certificate;

(c) Subordinated Debt;

(d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;

(e) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;

(f) Indebtedness secured by Liens permitted under clauses (a) and (c) of the definition of "Permitted Liens" hereunder;

(g) other unsecured Indebtedness not otherwise permitted by Section 6.4 not exceeding Two Hundred Fifty Thousand Dollars ($250,000.00) in the aggregate outstanding at any time;

(h) Indebtedness with respect to credit cards maintained with American Express, not to exceed Five Hundred Thousand Dollars ($500,000) outstanding at any time;

(i) Permitted Hedging Agreements;

(j) intercompany Indebtedness by and among Borrower and its Subsidiaries (subject to "Permitted Investments" part (g)(i);

(k) Indebtedness in respect of letters of credit, bank guarantees and similar instruments issued for the account of Borrower and/or its Subsidiaries in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) outstanding at any time;

(l) advances or deposits received in the ordinary course of business from customers or vendors;

(m) Indebtedness in respect of netting services, overdraft protections, payment processing, automatic clearinghouse arrangements, arrangements in respect of pooled deposit or sweep accounts, check endorsement guarantees, and otherwise in connection with deposit accounts or cash management services and

Indebtedness arising in connection with automated clearing house transfer of funds or the use of other payment processing services;

(n) Indebtedness arising in connection with the financing of insurance premiums in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) outstanding at any time;

(o) Indebtedness in respect of performance bonds, bid bonds, appeal bonds, surety bonds, completion guarantees and similar obligations arising in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) in the aggregate outstanding at any time;

(p) Unsecured Indebtedness in connection with Permitted Acquisitions, not to exceed Fifteen Million Dollars ($15,000,000) in aggregate outstanding at any time;

(q) Permitted Convertible Debt in aggregate principal amount not to exceed Two Hundred Fifty Million Dollars ($250,000,000) in principal amount at any time outstanding;

(r) Indebtedness of Borrower's Subsidiaries in connection with the sale of Inventory by Borrower to its Subsidiaries in the ordinary course of business, which may from time to time be forgiven by Borrower;

(s) purchase price adjustments, indemnity payments and earn-out obligations in connection with any Permitted Acquisition (to the extent not in excess of the consideration limitations set forth in the definition thereof); and

(t) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (a) through (s) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon Borrower or its Subsidiary, as the case may be.

"**Permitted Investments**" are:

(a) Investments (including, without limitation, Subsidiaries) existing on the Effective Date which are shown on the Perfection Certificate;

(b) (i) Investments consisting of cash and Cash Equivalents, and (ii) any other Investments permitted by Borrower's investment policy, as amended from time to time, provided that such investment policy (and any such amendment thereto) has been approved in writing by Bank, further provided that Bank hereby confirms approval of such investment policy delivered to Bank around the Effective Date;

(c) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of Borrower's business;

(d) Investments consisting of deposit and securities accounts (but only to the extent that Borrower or its Subsidiaries is permitted to maintain such accounts pursuant to Section 5.9 of this Agreement) in which Bank has a first priority perfected security interest (only if and to the extent required pursuant to Section 5.9 of this Agreement);

(e) Investments accepted in connection with Transfers permitted by Section 6.1;

(f) Investments consisting of the creation of a Subsidiary for the purpose of consummating a merger transactions and Permitted Acquisitions permitted by Section 6.3 of this Agreement, which is otherwise a Permitted Investment;

(g) Investments by Borrower in Subsidiaries that are not borrowers hereunder (or Guarantors), not to exceed (i) (x) Seven Million Five Hundred Thousand Dollars ($7,500,000) in the aggregate in any fiscal year; and (y) Three Million Dollars ($3,000,000) in any fiscal quarter, plus (ii) the ongoing day-to-day operations of such Subsidiaries in the ordinary course of business, so long as such (part (ii)) Investments are (A) made on a cost-plus

basis, or (B) otherwise in accordance with transfer pricing arrangements, or (C) are otherwise approved in advance in writing by Bank;

(h) Investments by Borrower in any other co-borrower under this Agreement or Guarantor;

(i) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers, directors, partners, managers and members relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee equity purchase plans or similar agreements approved by the Board;

(j) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business;

(k) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business; provided that this paragraph (j) shall not apply to Investments of Borrower in any Subsidiary;

(l) Cash investments of up to One Million Dollars ($1,000,000) per fiscal year, plus non-cash Investments in joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of the non-exclusive licensing of technology, the development of technology or the providing of technical support;

(m) any Permitted Call Spread Agreements;

(n) Permitted Acquisitions;

(o) Investments not to exceed Five Million Dollars ($5,000,000) per fiscal year to fund the expansion of Borrower and/or its Subsidiaries in (i) Japan, and/or (ii) any other jurisdiction as may be agreed by Bank (in its commercially reasonable discretion) and Borrower; and

(p) other Investments not otherwise enumerated in this defined term "Permitted Investments" not exceeding Five Hundred Thousand Dollars ($500,000) in the aggregate during any fiscal year.

"**Permitted Liens**" are:

(a) Liens existing on the Effective Date which are shown on the Perfection Certificate or arising under this Agreement or the other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either (i) not due and payable or (ii) being contested in good faith and for which Borrower maintains adequate reserves on Borrower's Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code;

(c) purchase money Liens and equipment liens (i) on Equipment or software acquired or held by Borrower incurred for financing the acquisition of the Equipment or software securing no more than One Million Dollars ($1,000,000) in the aggregate amount outstanding, or (ii) existing on Equipment or software when acquired, if the Lien is confined to the property and improvements and the proceeds of the Equipment or software;

(d) Liens of carriers, warehousemen, suppliers, or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed Two Hundred Fifty Thousand Dollars ($250,000), and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(e) Liens to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA);

(f) Liens incurred in the extension, renewal or refinancing of the Indebtedness secured by Liens described in (a) through (c), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness may not increase;

(g) leases or subleases of real property granted in the ordinary course of Borrower's business (or, if referring to another Person, in the ordinary course of such Person's business), and leases, subleases, non-exclusive licenses or sublicenses of personal property (other than Intellectual Property) granted in the ordinary course of Borrower's business (or, if referring to another Person, in the ordinary course of such Person's business), if the leases, subleases, licenses and sublicenses do not prohibit granting Bank a security interest therein;

(h) (i) non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, (ii) licenses of Intellectual Property that could not reasonably be expected to result in a legal transfer of title of the licensed property that may be exclusive in respects of territory (as to discreet geographical areas inside and outside of the United States), and (iii) licenses existing on the Effective Date and disclosed on the Perfection Certificate;

(i) customary Liens of any bank in connection with statutory, common law and contractual rights of setoff and recoupment with respect to any deposit account or securities account of Borrower, provided that (i) Bank has a first priority perfected security interest in such account (if perfection is required pursuant to Section 5.9 of this Agreement), and (ii) such account is permitted to be maintained pursuant to Section 5.9 of this Agreement;

(j) Liens arising from attachments or judgments, orders, or decrees in circumstances not constituting an Event of Default under Sections and 7.7;

(k) deposits under real property leases that are made in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) at any time;

(l) easements, rights-of-way, restrictions and other similar encumbrances affecting real property which, in the aggregate, are not substantial in amount, and which do not in any case materially detract from the value of the property subject thereto or materially interfere with the ordinary conduct of the business of the applicable Person;

(m) other Liens (not otherwise enumerated in this defined term) not exceeding One Hundred Thousand Dollars ($100,000) in the aggregate outstanding at any time;

(n) Liens in respect of performance bonds, bid bonds, appeal bonds, surety bonds, completion guarantees and similar obligations arising in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) in the aggregate outstanding at any time; and

(o) Liens on cash and Cash Equivalents securing obligations under Permitted Hedging Agreements.

"**Person**" is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

"**Prepayment Fee**" is a fee due upon prepayment (whether voluntary or otherwise) of the Term Loan Advance in full prior to the Term Loan Maturity Date equal to two percent (2.00%) of the aggregate l principal amount of the Term Loan Advance being prepaid on such date, provided, however, that no such Prepayment Fee is accrued or payable to Bank, and such Prepayment Fee is waived by Bank (i) with respect to the Term Loan Advance (as defined in the Agreement prior to the First Amendment Effective Date) prepaid on or around the First Amendment

Effective Date, and (ii) if any such prepaid Term Loan Advance is refinanced through a new credit facility provided by Bank.

"**Prime Rate**" is set forth on Schedule I hereto.

"**Prime Rate Margin**" is set forth on Schedule I hereto.

"**Qualified Cash**" means the amount of the Borrower and its Subsidiaries cash and Cash Equivalents held with Bank and/or Banks' Affiliates and/or in accounts subject to a Control Agreement in favor of Bank;

"**Quarterly Financial Statements**" is defined in Section 5.3(c).

"**Quick Assets**" is, on any date, Borrower's unrestricted and unencumbered cash and Cash Equivalents, including, for the avoidance of doubt, balances in the Cash Collateral Account, and Eligible Accounts.

"**Redemption Conditions**" means, with respect to any redemption by the Borrower of any Permitted Convertible Debt, satisfaction of each of the following events: (a) no Event of Default shall exist or result therefrom, (b) both immediately before and after such redemption, Borrower's Qualified Cash shall be no less than the amount required to prepay the outstanding Obligations in full at the time of such redemption, including all outstanding principal of the Term Loans, the accrued and unpaid interest thereon, the Final Payment, and the Prepayment Fee (provided, however, for the avoidance of doubt no such prepayment is required at such time), and (c) both immediately before and after such redemption, Borrower's Remaining Months Liquidity shall be no less than twelve (12).

"**Registered Organization**" is any "registered organization" as defined in the Code with such additions to such term as may hereafter be made.

"**Remaining Months Liquidity**" means Qualified Cash divided by Adjusted EBITDA (measured on a trailing twelve (12) month basis).

"**Representatives**" is defined in Section 11.8.

"**Reserves**" means, as of any date of determination, such amounts as Bank may from time to time establish and revise in its commercially reasonable discretion, reducing the amount of Advances and other financial accommodations which would otherwise be available to Borrower (a) to reflect events, conditions, contingencies or risks which, as determined by Bank in its commercially reasonable discretion, do or may adversely affect (i) the Collateral or any other property which is security for the Obligations or its value (including without limitation any increase in delinquencies of Accounts), (ii) the assets, business or prospects of Borrower or any Guarantor, or (iii) the security interests and other rights of Bank in the Collateral (including the enforceability, perfection and priority thereof); or (b) to reflect Bank's reasonable belief that any collateral report or financial information furnished by or on behalf of Borrower or any Guarantor to Bank is or may have been incomplete, inaccurate or misleading in any material respect; or (c) in respect of any state of facts which Bank determines in its commercially reasonable discretion constitutes a Default or an Event of Default.

"**Responsible Officer**" is any of the Chief Executive Officer, President, Chief Financial Officer, Chief Legal Officer, and Controller of Borrower.

"**Restricted License**" is any material license or other material agreement with respect to which Borrower is the licensee (a) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property, or (b) for which a default under or termination of could interfere with Bank's right to sell any material Collateral.

"**Revolving Line**" is set forth on Schedule I hereto.

"**Revolving Line Maturity Date**" is set forth on Schedule I hereto.

"**Sanctioned Person**" means a Person that: (a) is listed on any Sanctions list maintained by OFAC or any similar Sanctions list maintained by any other Governmental Authority having jurisdiction over Borrower; (b) is located, organized, or resident in any country, territory, or region that is the subject or target of Sanctions; or (c) is fifty percent (50.0%) or more owned or controlled by one (1) or more Persons described in clauses (a) and (b) hereof.

"**Sanctions**" means the economic sanctions laws, regulations, embargoes or restrictive measures administered, enacted or enforced by the United States government and any of its agencies, including, without limitation, OFAC and the U.S. State Department, or any other Governmental Authority having jurisdiction over Borrower.

"**SEC**" is the Securities and Exchange Commission, any successor thereto, and any analogous Governmental Authority.

"**Securities Account**" is any "securities account" as defined in the Code with such additions to such term as may hereafter be made.

"**Streamline Balance**" is defined in the definition of Streamline Period.

"**Streamline Period**" is, on and after the First Amendment Effective Date, provided no Event of Default has occurred and is continuing, the period (a) commencing on the first (1st) day of the month following the day that Borrower provides to Bank a written report that Borrower has, for the immediately preceding month, measured at month-end (only when Advances are outstanding or are being requested by Borrower), as determined by Bank in its commercially reasonable discretion, an Adjusted Quick Ratio in an amount as of such measurement date of greater than or equal to 1.50 to 1.00 (the "**Streamline Balance**"); and (b) terminating on the earlier to occur of (i) the occurrence of an Event of Default, and (ii) the first month-end measured thereafter in which Borrower fails to maintain the Streamline Balance, as determined by Bank in its commercially reasonable discretion. Upon the termination of a Streamline Period, Borrower shall maintain the Streamline Balance each month end for one (1) fiscal quarter, as determined by Bank in its commercially reasonable discretion, prior to entering into a subsequent Streamline Period. Borrower shall give Bank prior written notice of Borrower's election to enter into any such Streamline Period, and each such Streamline Period shall commence on the first (1st) day of the monthly period following the date Bank determines, in its commercially reasonable discretion, that the Streamline Balance has been achieved.

"**Subordinated Debt**" is indebtedness incurred by Borrower or any of its Subsidiaries subordinated to all of Borrower's or any of its Subsidiaries' now or hereafter indebtedness to Bank (pursuant to a subordination, intercreditor, or other similar agreement in form and substance satisfactory to Bank entered into between Bank and the other creditor), on terms acceptable to Bank. For the avoidance of doubt, Permitted Convertible Debt shall not constitute Subordinated Debt.

"**Subsidiary**" is, as to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock, partnership, membership, or other ownership interest or other equity securities having ordinary voting power (other than stock, partnership, membership, or other ownership interest or other equity securities having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such corporation, partnership or other entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly through one or more intermediaries, or both, by such Person. Unless the context otherwise requires, each reference to a Subsidiary herein shall be a reference to a Subsidiary of Borrower or Guarantor.

"**Taxes**" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"**Term Loan Advance**" is defined in Section 1.1(a) of this Agreement.

"**Term Loan Amortization Date**" is set forth on Schedule I hereto.

"**Term Loan Availability Amount**" is set forth on Schedule I hereto.

"**Term Loan Maturity Date**" is set forth on Schedule I hereto.

"**Termination Fee**" is defined in Section 1.3(c).

"**Total Liabilities**" is on any day, obligations that should, under GAAP, be classified as liabilities on Borrower's consolidated balance sheet, including all Indebtedness, but excluding all Subordinated Debt.

"**Trademarks**" means, with respect to any Person, any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of such Person connected with and symbolized by such trademarks.

"**Transfer**" is defined in Section 6.1.

"**Uncommitted Accordion**" is defined in Section 1.1(a) of this Agreement.

"**USA Patriot Act**" means the "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001" (Public Law 107-56, signed into law on October 26, 2001), as amended from time to time.

[*Signature page follows*]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the Effective Date.

BORROWER:

SI-BONE, INC.

By: /s/ Anshul Maheshwari

Name: Anshul Maheshwari

Title: Chief Financial Officer

BANK:

SILICON VALLEY BANK

By: /s/ Mark Davis

Name: Mark Davis

Title: Vice President

SCHEDULE I

LSA PROVISIONS

LSA Section	**LSA Provision**
1.1A(a) – Revolving Line - Availability	Amounts borrowed under the Revolving Line may be prepaid or repaid and, prior to the Revolving Line Maturity Date, reborrowed, subject to the applicable terms and conditions precedent herein, without penalty or premium.
1.1(a) – Term Loan – Availability	The initial Term Loan Advance must be in an amount equal to the initial Term Loan Availability Amount available on the First Amendment Effective Date (excluding the Uncommitted Accordion, for the avoidance of doubt). After repayment, the Term Loan Advance (or any portion thereof) may not be reborrowed.
1.1(b) – Term Loan – Repayment	Commencing on the Term Loan Amortization Date, and continuing on each Payment Date thereafter until the Term Loan Advance is paid in full, Borrower shall repay the outstanding Term Loan Advance in (i) thirty (30) equal monthly installments of principal, plus (ii) monthly payments of accrued interest in accordance with Section 1.2(a)(ii) at the rate set forth in Section 1.2(b)(iii).
1.2(a)(i) – Interest Payments - Advances	Interest on the outstanding principal amount of each Advance is payable in arrears monthly (A) on each Payment Date, (B) on the date of any prepayment and (C) on the Revolving Line Maturity Date.
1.2(a)(ii) – Interest Payments – Term Loan Advances	Interest on the outstanding principal amount of the Term Loan Advance is payable in arrears monthly (i) on each Payment Date commencing on the first Payment Date following the Funding Date of each such Term Loan Advance, (ii) on the date of any prepayment of the Term Loan Advance, and (iii) on the Term Loan Maturity Date.
1.2(b)(i) – Interest Rate - Advances	The outstanding principal amount of any Advance shall accrue interest at a floating rate per annum equal to the greater of (A) six and one quarter of one percent (6.25%) and (B) the Prime Rate plus the applicable Prime Rate Margin, which interest shall be payable in accordance with Section 1.2(a)(i).
1.2(b)(ii) – Interest Rate – Term Loan Advances	The outstanding principal amount of the Term Loan Advance shall accrue interest at a floating rate per annum equal to the greater of (A) six and three quarters of one percent (6.75%) and (B) the Prime Rate plus the applicable Prime Rate Margin, which interest shall be payable in accordance with Section 1.2(a)(ii).
1.2(e) – Interest Computation	Interest shall be computed on the basis of the actual number of days elapsed and a 360-day year for any Credit Extension outstanding.
1.3(c) – Revolving Line Commitment Fee	A fully earned, non-refundable commitment fee of (i) Seventy-Five Thousand Dollars ($75,000) on the First Amendment Effective Date, (ii) Seventy-Five Thousand Dollars ($75,000) on the first anniversary of the

LSA Section	LSA Provision
	First Amendment Effective Date, and (iii) Thirty-Seven Thousand Five Hundred ($37,500) on the second anniversary of the First Amendment Effective Date.
12.2 – "Borrower"	"**Borrower**" means (i) **SI-BONE, INC.**, a Delaware corporation.
12.2 – "Effective Date"	"**Effective Date**" is August 12, 2021.
12.2 – "Payment Date"	"**Payment Date**" is (a) with respect to Term Loan Advances, the first (1st) calendar day of each month and (b) with respect to Advances, the last calendar day of each month.
12.2 – "Prime Rate"	"**Prime Rate**" is the rate of interest per annum from time to time published in the money rates section of The Wall Street Journal or any successor publication thereto as the "prime rate" then in effect; provided that if such rate of interest, as set forth from time to time in the money rates section of The Wall Street Journal, becomes unavailable for any reason as determined by Bank, the "Prime Rate" shall mean the rate of interest per annum announced by Bank as its prime rate in effect at its principal office in the State of California (such Bank announced Prime Rate not being intended to be the lowest rate of interest charged by Bank in connection with extensions of credit to debtors); provided that, in the event such rate of interest is less than zero percent (0.0%) per annum, such rate shall be deemed to be zero percent (0.0%) per annum for purposes of this Agreement.
12.2 – "Prime Rate Margin"	"**Prime Rate Margin**" is (a) for Advances, (i) zero percent (0.00%), and (b) for Term Loan Advances, one half of one percent (0.50%).
12.2 – "Revolving Line"	"**Revolving Line**" is an aggregate principal amount equal to Fifteen Million Dollars ($15,000,000).
12.2 – "Term Loan Amortization Date"	"**Term Loan Amortization Date**" is July 1, 2025.
12.2 – "Revolving Line Maturity Date"	"**Revolving Line Maturity Date**" is the date that is thirty (30) months after the First Amendment Effective Date.
12.2 – "Term Loan Availability Amount"	"**Term Loan Availability Amount**" is Thirty-Six Million Dollars ($36,000,000); provided however, upon Borrower's request, if Bank, in its sole and absolute discretion, grant Borrower's request to make the Uncommitted Accordion available to Borrower, then "**Term Loan Availability Amount**" shall mean an aggregate principal amount equal to Fifty-One Million Dollars ($51,000,000).
12.2 – "Term Loan Maturity Date"	"**Term Loan Maturity Date**" is December 1, 2027.

EXHIBIT A

COMPLIANCE STATEMENT

TO: SILICON VALLEY BANK Date: _____
FROM: SI-BONE, INC.

Under the terms and conditions of the Loan and Security Agreement between Borrower and Bank (as amended, modified, supplemented and/or restated from time to time, the "**Agreement**"), Borrower is in complete compliance for the period ending _____with all required covenants except as noted below. Attached are the required documents evidencing such compliance, setting forth calculations prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes (and except for with respect to unaudited financial statements for the absence of footnotes and subject to year-end audit adjustments). Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under "Complies" column.

Reporting Covenants	Required	Complies
Quarterly Financial Statements with Compliance Statement	Quarterly within 45 days and FYE within 90 days	Yes No
Annual financial statements (CPA Audited)	FYE within 180 days	Yes No
10-Q, 10-K and 8-K	Within 5 Business Days after filing with SEC	Yes No N/A
Board approved projections	FYE within 30 days and within 30 days, as amended/updated, in each case as approved by the Board	Yes No
Borrowing Base Reports	When Advances are outstanding or are being requested, weekly on Friday of each week if an Streamline Period is not in effect; monthly within 30 days of month End if and Streamline Period is in effect; and with each Advance	Yes No
A/R & A/P Agings and Deferred Revenue reports	When Advances are outstanding or are being requested, monthly within 30 days	Yes No
Have there been any material amendments to the Operating Documents of Borrower? If yes, provide copies of any such amendments or changes with this Compliance Statement	N/A	Yes No

Streamline Period (Measured only when Advances are outstanding or are being requested by Borrower)	Applies
Adjusted Quick Ratio > 1.50 to 1.00	Yes No
Adjusted Quick Ratio < 1.50 to 1.00	Yes No

The following financial covenant analyses and information set forth in Schedule 1 attached hereto are true and correct as of the date of this Compliance Statement.

The following are the exceptions with respect to the statements above: (If no exceptions exist, state "No exceptions to note.")

SI-Bone, INC.

By: _____
Name: _____
Title: _____

BANK USE ONLY

Received by: _____
AUTHORIZED SIGNER
Date: _____

Verified: _____
AUTHORIZED SIGNER
Date: _____

Compliance Status: Yes No

Schedule 1 to Compliance Statement

Financial Covenants of Borrower

In the event of a conflict between this Schedule and the Agreement, the terms of the Agreement shall govern.

I. **Minimum Net Revenue** (Section 5.10)

Required: When a Financial Covenant Measuring Period is in effect, Borrower shall achieve Net Revenue as required by Section 5.10 and set forth below (pursuant to the amendment(s) required under Section 5.10):

Measuring Period Ending	**Minimum Net Revenue (measured on a trailing 6 month basis)**
[ ]	$[ ]
[ ]	$[ ]
[ ]	$[ ]
[ ]	$[ ]

Actual: $_____

Is Borrower's Net Revenue (measured on a trailing 6 month basis) greater than or equal to the required amount for the corresponding measuring period set forth in the chart above?

_____ No, not in compliance _____ Yes, in compliance

EXHIBIT B

LOAN PAYMENT/ADVANCE REQUEST FORM

DEADLINE FOR SAME DAY PROCESSING IS NOON PACIFIC TIME

FAX TO: Date: _____

LOAN PAYMENT:

SI-BONE, INC.

From Account #_____ To Account _____
(Deposit Account #) (Loan Account #)

Principal $_____ and/or Interest $_____

Authorized Signature:_____ Phone Number: _____
Print Name/Title: _____

LOAN ADVANCE:

Complete *Outgoing Wire Request* section below if all or a portion of the funds from this loan advance are for an outgoing wire.

From Account #_____ To Account #_____
(Loan Account #) (Deposit Account #)

Amount of Term Loan Advance $_____

All Borrower's representations and warranties in the Loan and Security Agreement are true, correct and complete in all material respects on the date of the request for an advance; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true and correct in all material respects as of such date:

Authorized Signature:_____ Phone Number: _____

Print Name/Title: _____

OUTGOING WIRE REQUEST:

Complete only if all or a portion of funds from the loan advance above is to be wired.
Deadline for same day processing is noon, Pacific Time

Beneficiary Name: _____ Amount of Wire: $_____
Beneficiary Bank: _____ Account Number: _____ City and State: _____

Beneficiary Bank Transit (ABA) #: _____

Beneficiary Bank Code (Swift, Sort, Chip, etc.): _____
(For International Wire Only)

Transit (ABA) #: _____

Intermediary Bank: _____

For Further Credit to: _____ Special Instruction: _____

By signing below, I (we) acknowledge and agree that my (our) funds transfer request shall be processed in accordance with and subject to the terms and conditions set forth in the agreements(s) covering funds transfer service(s), which agreements(s) were previously received and executed by me (us).

Authorized Signature:_____ 2nd Signature (if required):_____ Print Name/Title:_____ Print Name/Title:_____
Telephone #:_____ Telephone #:_____

EXHIBIT B

[Attached]

LOAN AND SECURITY AGREEMENT

This **LOAN AND SECURITY AGREEMENT** (this "**Agreement**") is dated as of the Effective Date between **SILICON VALLEY BANK**, a California corporation ("**Bank**"), and the borrower listed on Schedule I hereto ("**Borrower**"). The parties agree as follows:

1. LOAN AND TERMS OF PAYMENT

1.1 Term Loan Advance.

(a) Availability. Subject to the terms and conditions of this Agreement, on or about the First Amendment Effective Date or ~~soon thereafter as all conditions precedent to the making thereof have been met~~, Bank shall make one (1) term loan advance to Borrower in an original principal amount equal to the Term Loan Availability Amount (the "**Term Loan Advance**") which shall be used to (i) refinance the Term Loan Advance (as defined in the Agreement prior to the First Amendment Effective Date) outstanding as of the First Amendment Effective Date, (ii) satisfy the Final Payment (as defined in the Agreement prior to the First Amendment Effective Date), which is with respect to the Term Loan Advance (as defined in the Agreement prior to the First Amendment Effective Date), and (iii) thereafter, used for working capital purposes. Bank and Borrower acknowledge and agree that prior to the First Amendment Effective Date, the amount Borrower accrued and owed to Bank in connection with the Final Payment (as defined in the Agreement prior to the First Amendment Effective Date) was Two Hundred Seventy Four Thousand Nine Hundred Ninety Dollars and 88/100 ($274,990.88). After repayment (in whole or in part), the Term Loan Advance may not be reborrowed.

Additionally, at any time during the applicable draw period agreed to by Borrower and Bank, Borrower may request that Bank make additional term loan advances available to Borrower in an aggregate original principal amount of up to Fifteen Million Dollars ($15,000,000) (the "**Uncommitted Accordion**"). Bank, in its sole and absolute discretion, may grant or deny any such request from Borrower for a term loan advance under the Uncommitted Accordion. If, and only if, Bank, in its sole discretion, agrees to provide any additional term loan advance(s) to Borrower under the Uncommitted Accordion, each such term loan advance shall each be considered a "Term Loan Advance" hereunder and added to the definition thereof; provided that the terms of the making of any advance under the Uncommitted Accordion shall be outlined in an amendment to this Agreement to be entered into by the parties hereto.

(b) Repayment. Borrower shall repay the Term Loan Advance as set forth in Schedule I hereto. All outstanding principal and accrued and unpaid interest under the Term Loan Advance, and all other outstanding Obligations with respect to such Term Loan Advance, are due and payable in full on the Term Loan Maturity Date.

(c) Permitted Prepayment. Borrower shall have the option to prepay all, but not less than all, of the Term Loan Advance, provided Borrower (i) delivers written notice to Bank of its election to prepay the Term Loan Advance at least five (5) Business Days prior to such prepayment, and (ii) pays, on the date of such prepayment (A) the outstanding principal plus accrued and unpaid interest with respect to the Term Loan Advance, (B) the applicable Prepayment Fee, if any, (C) the Final Payment, and (D) all other sums, if any, that shall have become due and payable with respect to the Term Loan Advance, including interest at the Default Rate with respect to any past due amounts.

(d) Mandatory Prepayment Upon an Acceleration. If the Term Loan Advance is accelerated by Bank following the occurrence and during the continuance of an Event of Default, Borrower shall immediately pay to Bank an amount equal to the sum of (i) all outstanding principal plus accrued and unpaid interest with respect to the Term Loan Advance, (ii) the applicable Prepayment Fee, if any, (iii) the Final Payment, and (iv) all other sums, if any, that shall have become due and payable with respect to the Term Loan Advance, including interest at the Default Rate with respect to any past due amounts.

1.1.A Revolving Line.

(a) Availability. Subject to the terms and conditions of this Agreement and to deduction of Reserves, Bank shall make Advances under the Revolving Line upon Borrower's request not exceeding the Availability Amount. Amounts borrowed under the Revolving Line may be prepaid or repaid as set forth on Schedule I hereto.

(b) Termination; Repayment. The Revolving Line terminates on the Revolving Line Maturity Date, at which time the outstanding principal amount of all Advances, the accrued and unpaid interest thereon, and all other outstanding Obligations relating to the Revolving Line shall be immediately due and payable.

1.1.B **Overadvances.** If, at any time, the sum of the aggregate outstanding principal amount of any Advances exceeds the lesser of (i) the Revolving Line or (ii) the Borrowing Base, Borrower shall immediately pay to Bank in cash the amount of such excess (such excess, the "**Overadvance**"). Without limiting Borrower's obligation to repay Bank any Overadvance, at Bank's sole option, Borrower shall pay Bank interest on the outstanding amount of any Overadvance, on demand, at a rate per annum equal to the rate that is otherwise applicable to Advances plus three percent (3.0%).

1.2 Payment of Interest on the Credit Extensions.

(a) Interest Payments.

(i) Advances. Interest on the principal amount of each Advance is payable as set forth on Schedule I hereto.

(ii) ~~(a) Interest Payments~~Term Loan Advances. Interest on the outstanding principal amount of ~~the~~each Term Loan Advance is payable as set forth on Schedule I hereto.

(b) Interest Rate.

(i) Advances. Subject to Section 1.2(c), the outstanding principal amount of any Advance shall accrue interest as set forth on Schedule I hereto.

(ii) ~~(i)~~ Term Loan ~~Advance~~Advances. Subject to Section 1.2~~(c)~~(c), the outstanding principal amount of the Term Loan Advance shall accrue interest as set forth on Schedule I hereto.

(iii) ~~(ii)~~ All-In Rate. Notwithstanding any terms in this Agreement to the contrary, if at any time the interest rate applicable to any Obligations is less than zero percent (0.0%), such interest rate shall be deemed to be zero percent (0.0%) for all purposes of this Agreement.

(c) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, the outstanding Obligations shall bear interest at a rate per annum which is three percent (3.0%) above the rate that is otherwise applicable thereto (the "**Default Rate**"), unless Bank otherwise elects, in its sole discretion, to impose a lesser increase or no increase. Fees and expenses which are required to be paid by Borrower pursuant to the Loan Documents (including, without limitation, Bank Expenses) but are not paid when due shall bear interest until paid at a rate equal to the highest rate applicable to the Obligations. Payment or acceptance of the increased interest rate provided in this Section 1.2~~(c)~~(c) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Bank.

(d) Adjustment to Interest Rate. Each change in the interest rate applicable to any amounts payable under the Loan Documents based on changes to the Prime Rate shall be effective on the effective date of any change to the Prime Rate and to the extent of such change.

(e) Interest Computation. Interest shall be computed as set forth on Schedule I hereto. In computing interest, the date of the making of any Credit Extension shall be included and the date of payment shall be excluded; provided, however, that if any Credit Extension is repaid on the same day on which it is made, such day shall be included in computing interest on such Credit Extension.

1.3 Fees and Expenses. Borrower shall pay to Bank:

(a) Prepayment Fee. The Prepayment Fee, if and when due hereunder, which shall be fully earned and non-refundable as of the applicable prepayment date; provided, however, if Borrower refinances the Term Loan Advance with another credit facility from Bank, Bank shall waive the Prepayment Fee;

(b) Final Payment. The Final Payment, when due hereunder, which shall be fully earned and non-refundable as of such date~~; and~~, provided however, for the avoidance of doubt, the Final Payment due under the terms of this original Agreement with respect to the original Term Loan Advances shall be pro-rated and accrued and payable only through the date such original Term Loan Advances are repaid on or around the First Amendment Effective Date, in accordance with Section 1.1(a);

(c) Revolving Line Commitment Fee. A fully earned, as of the First Amendment Effective Date, non-refundable commitment fee as set forth on Schedule I hereto; and

(d) Termination Fee. Upon termination of this Agreement or the termination of the Revolving Line for any reason prior to the Revolving Line Maturity Date, in addition to the payment of any other amounts then-owing, a termination fee in an amount equal to One Hundred Fifty Thousand Dollars ($150,000), which shall be fully earned and non-refundable as of such date; provided that no termination fee shall be charged if the credit facility hereunder is replaced with a new facility from Bank;

(e) ~~(c)~~ Bank Expenses. All Bank Expenses incurred through and after the First Amendment Effective Date, when due (or, if no stated due date, upon demand by Bank). Borrower has paid to Bank a good faith deposit of ~~Fifty~~Seventy-Five Thousand Dollars ($~~50,000~~75,000) (the "**Good Faith Deposit**"), in connection with the First Amendment, to initiate Bank's due diligence review process. The Good Faith Deposit will be applied to Bank Expenses as of the Effective Date.

Unless otherwise provided in this Agreement or in a separate writing by Bank, Borrower shall not be entitled to any credit, rebate, or repayment of any fees earned by Bank pursuant to this Agreement notwithstanding any termination of this Agreement or the suspension or termination of Bank's obligation to make loans and advances hereunder. Bank may deduct amounts owing by Borrower under the clauses of this Section 1.3 pursuant to the terms of Section 1.4(c). Bank shall provide Borrower written notice of deductions made pursuant to the terms of the clauses of this Section 1.3.

1.4 Payments; Application of Payments; Debit of Accounts.

(a) All payments (including prepayments) to be made by Borrower under any Loan Document shall be made in immediately available funds in Dollars, without setoff, counterclaim, or deduction, before 12:00 p.m. Pacific time on the date when due. Payments of principal and/or interest received after 12:00 p.m. Pacific time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the payment shall be due the next Business Day, and additional fees or interest, as applicable, shall continue to accrue until paid.

(b) Subject to the payment terms of this Agreement and Section 8.4, Bank has the exclusive right in its reasonable discretion to determine the order and manner in which all payments with respect to the Obligations may be applied. Borrower shall have no right to specify the order or the accounts to which Bank shall allocate or apply any payments required to be made by Borrower to Bank or otherwise received by Bank under this Agreement when any such allocation or application is not specified elsewhere in this Agreement.

(c) Bank may debit the Designated Deposit Account (or if insufficient funds are contained therein, or if an Event of Default has occurred and is continuing, any of Borrower's other accounts at Bank), for principal and interest payments or any other amounts Borrower owes Bank when as and when due under this Agreement. These debits shall not constitute a set-off.

1.5 Change in Circumstances.

(a) Increased Costs. If any Change in Law shall: (i) impose, modify or deem applicable any reserve, special deposit, compulsory loan, insurance charge or similar requirement against assets of, deposits with or for the account of, or advances, loans or other credit extended or participated in by, Bank, (ii) subject Bank to any Taxes (other than (A) Indemnified Taxes, (B) Taxes described in clauses (b) through (d) of the definition of Excluded Taxes, and (C) Connection Income Taxes) on its loans, loan principal, letters of credit, commitment, or other obligations, or its deposits, reserves, other liabilities or capital attributable thereto, or (iii) impose on Bank any other condition, cost or expense (other than Taxes) affecting this Agreement or Credit Extensions made by Bank, and the result of any of the foregoing shall be to increase the cost to Bank of making, converting to, continuing or maintaining any Credit Extension (or of maintaining its obligation to make any such Credit Extension), or to reduce the amount of any sum received or receivable by Bank hereunder (whether of principal, interest or any other amount) then, upon written request of Bank, Borrower shall promptly pay to Bank such additional amount or amounts as will compensate Bank for such additional costs incurred or reduction suffered.

(b) Capital Requirements. If Bank determines that any Change in Law affecting Bank regarding capital or liquidity requirements, has or would have the effect of reducing the rate of return on Bank's capital as a consequence of this Agreement, the Revolving Line, any term loan facility, or the Credit Extensions made by Bank to a level below that which Bank could have achieved but for such Change in Law (taking into consideration Bank's policies with respect to capital adequacy and liquidity), then from time to time upon written request of Bank, Borrower shall promptly pay to Bank such additional amount or amounts as will compensate Bank for any such reduction suffered.

(c) Delay in Requests. Failure or delay on the part of Bank to demand compensation pursuant to this Section 1.5 shall not constitute a waiver of Bank's right to demand such compensation; provided that Borrower compensate Bank pursuant to subsection (a) for any increased costs incurred or reductions suffered more than nine (9) months prior to the date that Bank notifies Borrower of the Change in Law giving rise to such increased costs or reductions (except that if the Change in Law giving rise to such increased costs or reductions is retroactive, then the nine (9) month period shall be extended to include the period of retroactive effect).

1.6 Taxes.

(a) Payments Free of Taxes. Any and all payments by or on account of any obligation of Borrower under any Loan Document shall be made without deduction or withholding for any Taxes, except as required by Applicable Law. If any Applicable Law (as determined in the ~~good faith~~commercially reasonable discretion of Borrower) requires the deduction or withholding of any Tax from any such payment by Borrower, then (i) Borrower shall be entitled to make such deduction or withholding, (ii) Borrower shall timely pay the full amount deducted or withheld to the relevant Governmental Authority in accordance with Applicable Law, and (iii) if such Tax is an Indemnified Tax, the sum payable by Borrower shall be increased as necessary so that after such deduction or withholding has been made (including such deductions and withholdings applicable to additional sums payable

under this Section 1.6) Bank receives an amount equal to the sum it would have received had no such deduction or withholding been made.

(b) Payment of Other Taxes by Borrower. Without limiting the provisions of subsection (a) above, Borrower shall timely pay any Other Taxes to the relevant Governmental Authority in accordance with Applicable Law.

(c) Tax Indemnification. Without limiting the provisions of subsections (a) and (b) above, Borrower shall, and does hereby, indemnify Bank, within ten (10) days after demand therefor, for the full amount of any Indemnified Taxes (including Indemnified Taxes imposed or asserted on or attributable to amounts payable under this Section 1.6) payable or paid by Bank or required to be withheld or deducted from a payment to Bank and any reasonable expenses arising therefrom or with respect thereto, whether or not such Indemnified Taxes were correctly or legally imposed or asserted by the relevant Governmental Authority. A certificate as to the amount of such payment or liability delivered to Borrower by Bank shall be conclusive absent manifest error.

(d) Evidence of Payments. As soon as practicable after any payment of Taxes by Borrower to a Governmental Authority pursuant to this Section 1.6, Borrower shall deliver to Bank a certified copy of a receipt issued by such Governmental Authority evidencing such payment, a copy of the return reporting such payment or other evidence of such payment reasonably satisfactory to Bank.

(e) Status of Bank. If Bank (including any assignee or successor) is entitled to an exemption from or reduction of withholding tax with respect to payments made under any Loan Document, it shall deliver to Borrower, at the time or times reasonably requested by Borrower, such properly completed and executed documentation reasonably requested by Borrower as will permit such payments to be made without withholding or at a reduced rate of withholding. In addition, Bank, if reasonably requested by Borrower, shall deliver such other documentation prescribed by Applicable Law or reasonably requested by Borrower as will enable Borrower to determine whether or not Bank is subject to backup withholding or information reporting requirements. Without limiting the generality of the foregoing, Bank shall deliver whichever of IRS Form W-9, IRS Form W-8BEN-E, IRS Form W-8ECI or IRS Form W-8IMY is applicable, as well as any applicable supporting documentation or certifications. If a payment made to Bank under any Loan Document would be subject to U.S. federal withholding Tax imposed by FATCA if Bank were to fail to comply with the applicable reporting requirements of FATCA (including those contained in Section 1471(b) or 1472(b) of the Internal Revenue Code, as applicable), Bank shall deliver to Borrower at the time or times prescribed by law and at such time or times reasonably requested by Borrower such documentation prescribed by Applicable Law (including as prescribed by Section 1471(b)(3)(C)(i) of the Internal Revenue Code) and such additional documentation reasonably requested by Borrower as may be necessary for Borrower to comply with its obligations under FATCA and to determine that Bank has complied with its obligations under FATCA or to determine the amount, if any, to deduct and withhold from such payment. Solely for purposes of the preceding sentence, "FATCA" shall include any amendments made to FATCA after the date of this Agreement.

(f) Treatment of Certain Refunds. If Bank determines, in its sole discretion exercised in good faith, that it has received a refund of any Taxes as to which it has been indemnified pursuant to this Section 1.6 (including by the payment of additional amounts pursuant to this Section 1.6), it shall pay to Borrower an amount equal to such refund (but only to the extent of indemnity payments made under this Section 1.6 with respect to the Taxes giving rise to such refund), net of all out-of-pocket expenses (including Taxes) of Bank and without interest (other than any interest paid by the relevant Governmental Authority with respect to such refund). Borrower, upon the request of Bank, shall repay to Bank the amount paid over pursuant to this paragraph (f) (plus any penalties, interest or other charges imposed by the relevant Governmental Authority) in the event that Bank is required to repay such refund to such Governmental Authority. Notwithstanding anything to the contrary in this paragraph (f), in no event will Bank be required to pay any amount to Borrower pursuant to this paragraph (f) the payment of which would place Bank in a less favorable net after-Tax position than Bank would have been in if the Tax subject to indemnification and giving rise to such refund had not been deducted, withheld or otherwise imposed and the indemnification payments or additional amounts with respect to such Tax had never been paid. This paragraph (f)

shall not be construed to require Bank to make available its Tax returns (or any other information relating to its Taxes that it deems confidential) to Borrower or any other Person.

1.7 Procedures for Borrowing.

(a) Advances. Subject to the prior satisfaction of all other applicable conditions to the making of an Advance set forth in this Agreement (which must be satisfied no later than 12:00 p.m. Pacific time on the applicable Funding Date), to obtain an Advance, Borrower (via an individual duly authorized by an Administrator) shall notify Bank (which notice shall be irrevocable) by 12:00 p.m. Pacific time on the Funding Date of the Advance. Such notice shall be made through Bank's online banking program, provided, however, if Borrower is not utilizing Bank's online banking program, then such notice shall be in a written format acceptable to Bank that is executed by an Authorized Signer. In connection with any such notification, Borrower shall deliver to Bank by electronic mail or through Bank's online banking program such reports and information, including without limitation, accounts receivable aging reports, as Bank may reasonably request. Bank shall have received satisfactory evidence that the Board has approved that such Authorized Signer may provide such notices and request Advances (which requirement may be deemed satisfied by the prior delivery of Borrowing Resolutions or a secretary's certificate that certifies as to such Board approval).

(b) ~~(a)~~ Term Loan Advances. Subject to the prior satisfaction of all other applicable conditions to the making of the Term Loan Advance set forth in this Agreement (which must be satisfied no later than 12:00 p.m. Pacific time on the applicable Funding Date), to obtain the Term Loan Advance, Borrower shall notify Bank (which notice shall be irrevocable) by 12:00 p.m. Pacific time on the Funding Date of the Term Loan Advance. Such notice shall be made by electronic mail or by telephone and, together with any such notification, Borrower shall deliver to Bank by electronic mail a completed Payment/Advance Form executed by an Authorized Signer. Bank may rely on any telephone notice given by a person whom Bank reasonably believes is an Authorized Signer. Borrower will indemnify Bank for any loss Bank suffers due to such reasonable belief or reliance. Bank shall have received satisfactory evidence that the Board has approved that such Authorized Signer may provide such notices and request such Term Loan Advance (which requirement may be deemed satisfied by the prior delivery of Borrowing Resolutions or a secretary's certificate that certifies as to such Board approval).

(c) ~~(b)~~ Bank shall credit proceeds of a Credit Extension to the Designated Deposit Account. Bank may make ~~the~~Advances and Term Loan ~~Advance~~Advances under this Agreement based on instructions from an Authorized Signer or without instructions if such Advances or Term Loan ~~Advance is~~Advances are necessary to meet Obligations which have become due.

2. CONDITIONS OF CREDIT EXTENSIONS

2.1 Conditions Precedent to Initial Credit Extension. Bank's obligation to make the initial Credit Extension is subject to the condition precedent that Bank shall have received, in form and substance satisfactory to Bank, such documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate, including, without limitation:

(a) duly executed Loan Documents;

(b) a duly executed Control Agreement with U.S. Bank;

(c) the Operating Documents of Borrower and its Subsidiaries and long-form good standing certificates of Borrower certified by the Secretary of State of the State of Delaware and the Secretary of State (or equivalent agency) of each other jurisdiction in which Borrower is qualified to conduct business, in each case as of a date no earlier than thirty (30) days prior to the Effective Date;

(d) a certificate duly executed by a Responsible Officer or secretary of Borrower with respect to Borrower's (i) Operating Documents and (ii) Borrowing Resolutions;

(e) a duly executed payoff letter from Solar Capital;

(f) evidence that (i) the Liens securing Indebtedness owed by Borrower to Solar Capital will be terminated and (ii) the documents and/or filings evidencing the perfection of such Liens, including without limitation any financing statements and/or control agreements, have or will, concurrently with the initial Credit Extension, be terminated;

(g) certified copies, dated as of a recent date, of searches for financing statement filed in the central filing office of the State of Delaware, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the initial Credit Extension, will be terminated or released;

(h) a duly executed Perfection Certificate of Borrower;

(i) a duly executed landlord's consent in favor of Bank for Borrower's leased location at 471 El Camino Real, Suite 101, Santa Clara, CA 95050;

(j) a legal opinion of Borrower's counsel dated as of the Effective Date;

(k) with respect to initial Advance, a completed Borrowing Base Certificate;

(l) the completion of the Initial Audit with respect to the initial Advance;

(m) ~~(k)~~ evidence satisfactory to Bank that the insurance policies and endorsements required by Section 5.8 hereof are in full force and effect, together with appropriate evidence showing lender loss payable and additional insured clauses or endorsements in favor of Bank; and

(n) ~~(l)~~ payment of the fees and Bank Expenses then due as specified in Section 1.3 hereof.

2.2 Conditions Precedent to all Credit Extensions. Bank's obligation to make each Credit Extension, including the initial Credit Extension, is subject to the following conditions precedent:

(a) receipt of Borrower's Credit Extension request and the related materials and documents as required by and in accordance with Section 1.7;

(b) the representations and warranties in this Agreement shall be true and correct in all material respects as of the date of any Credit Extension request and as of the Funding Date of each Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true and correct in all material respects as of such date, and no Default or Event of Default shall have occurred and be continuing or result from the Credit Extension. Each Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in this Agreement remain true and correct in all material respects; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true and correct in all material respects as of such date; and

(c) a Material Adverse Change shall not have occurred.

2.3 Covenant to Deliver.

(a) Borrower shall deliver to Bank each item required to be delivered to Bank under this Agreement as a condition precedent to any Credit Extension. A Credit Extension made prior to the receipt by Bank of any such item shall not constitute a waiver by Bank of Borrower's obligation to deliver such item, and the making of any Credit Extension in the absence of a required item shall be in Bank's sole discretion.

3. CREATION OF SECURITY INTEREST

3.1 Grant of Security Interest.

(a) Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Bank, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof.

(b) Borrower acknowledges that it previously has entered, or may in the future enter, into Bank Services Agreements with Bank. Regardless of the terms of any Bank Services Agreement, Borrower agrees that any amounts Borrower owes Bank thereunder shall be deemed to be Obligations hereunder and that it is the intent of Borrower and Bank to have all such Obligations secured by the first priority perfected security interest in the Collateral granted herein (subject to Permitted Liens).

3.2 Authorization to File Financing Statements. Borrower hereby authorizes Bank to file financing statements covering the Collateral, without notice to Borrower, with all jurisdictions deemed necessary or appropriate by Bank to perfect or protect Bank's interest or rights hereunder, including a notice that any disposition of the Collateral, by either Borrower or any other Person, in contravention of the terms of this Agreement shall be deemed to violate the rights of Bank under the Code. Such financing statements may indicate the Collateral

3.3 Termination. If this Agreement is terminated, Bank's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations) are repaid in full in cash. Upon payment in full in cash of the Obligations (other than inchoate indemnity obligations) and at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall, at Borrower's sole cost and expense, promptly terminate its security interest in the Collateral and all rights therein shall automatically revert to Borrower, and Bank shall, upon request from Borrower and at Borrower's sole cost and expense, promptly deliver to Borrower written evidence of the termination of such liens and any other documents reasonably necessary to terminate such liens. In the event (a) all Obligations (other than inchoate indemnity obligations), except for Bank Services, are satisfied in full, and (b) this Agreement is terminated, Bank shall terminate the security interest granted herein upon Borrower providing cash collateral acceptable to Bank in its commercially reasonable discretion for Bank Services, if any. In the event such Bank Services consist of outstanding Letters of Credit, Borrower shall provide to Bank cash collateral in an amount equal to at least (i) one hundred and five percent (105.0%) of the face amount of all such Letters of Credit denominated in Dollars and (ii) one hundred and fifteen percent (115.0%) of the Dollar Equivalent of the face amount of all such Letters of Credit denominated in a Foreign Currency, plus, in each case, all interest, fees, and costs due or estimated by Bank to become due in connection therewith, to secure all of the Obligations relating to such Letters of Credit.

4. REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

4.1 Due Organization, Authorization; Power and Authority.

(a) Borrower and each of its Subsidiaries are each duly existing and in good standing as a Registered Organization in their respective jurisdiction of formation and are qualified and licensed to do business and is in good standing in any other jurisdiction in which the conduct of their respective business or their ownership

of property requires that they be qualified except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business or operations.

(b) All information set forth on the Perfection Certificate pertaining to Borrower and each of its Subsidiaries is true and correct in all material respects (it being understood and agreed that Borrower may from time to time update certain information in the Perfection Certificate after the First Amendment Effective Date to the extent permitted by one or more specific provisions in this Agreement and the Perfection Certificate shall be deemed to be updated to the extent such notice is provided to Bank of such permitted update).

(c) The execution, delivery and performance by Borrower and each of its Subsidiaries of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's or any such Subsidiary's organizational documents, (ii) contravene, conflict with, constitute a default under or violate any material Applicable Law, (iii) contravene, conflict with or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or any of its Subsidiaries or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except such Governmental Approvals which have already been obtained and are in full force and effect), or (v) conflict with, contravene, constitute a default or breach under, or result in or permit the termination or acceleration of, any material agreement by which Borrower or any of its Subsidiaries is bound, or applicable consents or waivers have been obtained. Neither Borrower nor any of its Subsidiaries are in default under any material agreement to which it is a party or by which it is bound in which the default could reasonably be expected to have a material adverse effect on Borrower's or any of its Subsidiary's business or operations (taken as a whole).

4.2 Collateral.

(a) The security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject to Permitted Liens). Borrower has good title to, rights in, and the power to transfer each item of the Collateral upon which it purports to grant a Lien hereunder, free and clear of any and all Liens except Permitted Liens.

(b) Borrower has no Collateral Accounts at or with any bank or financial institution other than Bank or Bank's Affiliates except for the Collateral Accounts described in the Perfection Certificate delivered to Bank in connection herewith and which Borrower has taken such actions as are necessary to give Bank a perfected security interest therein, to the extent that perfection is required pursuant to the terms of Section 5.9(c). The Accounts are bona fide, existing obligations of the Account Debtors.

(c) The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate or as permitted pursuant to Section 6.2 (other than laptops and other portable electronic items used in the ordinary course of business). None of the components of the Collateral shall be maintained at locations other than as provided in the Perfection Certificate or as permitted pursuant to Section 6.2 (other than laptops and other portable electronic items used in the ordinary course of business).

(d) All Inventory is in all material respects of good and marketable quality, free from material defects.

(e) Borrower owns, or possesses the right to use to the extent reasonably necessary in its business, all Intellectual Property, licenses and other intangible assets that are used in the conduct of its business operations as now operated, except to the extent that such failure to own or possess the right to use such asset would not reasonably be expected to have a material adverse effect on Borrower's business or operations, and no such asset, to the best knowledge of Borrower, conflicts with the valid Intellectual Property, license, or intangible asset of

any other Person to the extent that such conflict could reasonably be expected to have a material adverse effect on Borrower's business or operations.

(f) Except as noted on the Perfection Certificate (as updated from time to time in accordance with this Agreement) or for which notice has been given to Bank pursuant to and in accordance with Section 5.11(b), Borrower is not a party to, nor is it bound by, any Restricted License.

4.3 ~~Reserved~~Accounts Receivable.

(a) For each Account included in the most recent Borrowing Base Statement, on the date such related Advance is requested and made, such Account shall be an Eligible Account.

(b) All statements made and all unpaid balances appearing in all invoices, instruments and other documents evidencing the Eligible Accounts are and shall be true and correct and all such invoices, instruments and other documents, and all of Borrower's Books are genuine and in all respects what they purport to be. All sales and other transactions underlying or giving rise to each Eligible Account shall comply in all material respects with all Applicable Law. Borrower has no knowledge of any actual or imminent Insolvency Proceeding of any Account Debtor whose accounts are Eligible Accounts in any Borrowing Base Statement. To Borrower's knowledge, all signatures and endorsements on all documents, instruments, and agreements relating to all Eligible Accounts are genuine, and all such documents, instruments and agreements are legally enforceable in accordance with their terms.

4.4 Litigation. Other than as set forth on the Perfection Certificate delivered around the First Amendment Effective Date, and as disclosed to Bank pursuant to Section 5.3, there are no actions, investigations or proceedings pending or, to the knowledge of any Responsible Officer, threatened in writing by or against Borrower or any of its Subsidiaries that could reasonably be expected to result in liability of more than, individually or in the aggregate, Seven Hundred Fifty Thousand Dollars ($750,000).

4.5 Financial Statements; Financial Condition. All consolidated financial statements for Borrower and any of its Subsidiaries delivered to Bank by submission to the Financial Statement Repository or otherwise submitted to Bank fairly present in all material respects Borrower's consolidated financial condition and Borrower's consolidated results of operations as of the dates thereof and for the periods covered thereby, subject, in the case of unaudited financial statements, to normal year-end adjustments and the absence of footnote disclosures. There has not been any material deterioration in Borrower's consolidated financial condition since the date of the most recent financial statements submitted to the Financial Statement Repository or otherwise submitted to Bank.

4.6 Solvency. The fair salable value of Borrower's consolidated assets (including goodwill minus disposition costs) exceeds the fair value of Borrower's liabilities; Borrower is not left with unreasonably small capital after the transactions in this Agreement; and Borrower and Borrower and each of its Subsidiaries (taken as a whole) are able to pay their debts (including trade debts) as they mature.

4.7 Regulatory Compliance. Borrower is not an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower and each of its Subsidiaries (a) have complied in all material respects with all Applicable Law, and (b) have not violated any Applicable Law the violation of which could reasonably be expected to have a material adverse effect on Borrower's business or operations. Borrower and each of its Subsidiaries have duly complied with, and their respective facilities, business, assets, property, leaseholds, real property and Equipment are in compliance with, Environmental Laws, except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business or operations; there have been no outstanding citations, notices or orders of non-compliance issued to Borrower or any of its Subsidiaries or relating to their respective facilities, businesses, assets, property, leaseholds, real property or Equipment under such Environmental Laws Borrower and each of its Subsidiaries have obtained all consents, approvals and authorizations

of, made all declarations or filings with, and given all notices to, all Governmental Authorities that are necessary to continue their respective businesses as currently conducted, except where the failure to obtain or make or file the same would not reasonably be expected to have a material adverse effect on Borrower's business or operations.

4.8 Subsidiaries; Investments. Borrower does not own any stock, partnership, or other ownership interest or other equity securities except for Permitted Investments.

4.9 Tax Returns and Payments; Pension Contributions.

(a) Borrower and each of its Subsidiaries have timely filed, or submitted extensions for, all required tax returns and reports, and Borrower and each of its Subsidiaries have timely paid, or submitted extensions for, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower and each of its Subsidiaries except (i) to the extent such taxes are being contested in good faith by appropriate proceedings promptly instituted and diligently conducted, so long as such reserve or other appropriate provision, if any, as shall be required in conformity with GAAP shall have been made therefor, or (ii) if such taxes, assessments, deposits and contributions do not, individually or in the aggregate, exceed Fifty Thousand Dollars ($50,000). Borrower is unaware of any claims or adjustments proposed for any of Borrower's or any of its Subsidiary's prior tax years which could result in additional taxes becoming due and payable by Borrower or any of its Subsidiaries in excess of Fifty Thousand Dollars ($50,000) in the aggregate.

(b) Borrower and each of its Subsidiaries have paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and neither Borrower nor any of its Subsidiaries has withdrawn from participation in, and has not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any material liability of Borrower or any of its Subsidiaries, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other Governmental Authority.

4.10 Full Disclosure. No written representation, warranty or other statement of Borrower or any of its Subsidiaries in any report, certificate or written statement submitted to the Financial Statement Repository or otherwise submitted to Bank, as of the date such representation, warranty, or other statement was made, taken together with all such written reports, written certificates and written statements submitted to the Financial Statement Repository or otherwise submitted to Bank, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the reports, certificates or written statements not misleading in light of the circumstances under which they were made (it being recognized by Bank that the projections and forecasts provided by Borrower or any of its Subsidiaries in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

4.11 Sanctions. Neither Borrower nor any of its Subsidiaries is: (a) in violation of any Sanctions; or (b) a Sanctioned Person. Neither Borrower nor any of its Subsidiaries, or, to Borrower's knowledge, its directors, officers, employees, agents or Affiliates: (i) conducts any business or engages in any transaction or dealing with any Sanctioned Person, including making or receiving any contribution of funds, goods or services to or for the benefit of any Sanctioned Person; (ii) deals in, or otherwise engages in any transaction relating to, any property or interests in property blocked pursuant to any Sanctions; (iii) engages in or conspires to engage in any transaction that evades or avoids, or has the purpose of evading or avoiding, or attempts to violate, any of the prohibitions set forth in any Sanctions; or (iv) otherwise engages in any transaction that could cause Bank to violate any Sanctions.

5. AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

5.1 Use of Proceeds. Cause the proceeds of the Credit Extensions to be used solely ~~(a)~~as follows: (a) for Credit Extensions that occur prior to the First Amendment Effective Date, (i) as working capital, (~~b~~ii) to fund its

general business purposes, or (~~e~~iii) repayment and payoff of Solar Capital and not for personal, family, household or agricultural purposes~~.~~, and (b) for Credit Extensions that occur on or after the First Amendment Effective Date, (x) as working capital, (y) to fund its general business purposes, or (z) repayment of all Obligations constituting Term Loan Advances (as defined in the Agreement prior to the First Amendment Effective Date) outstanding immediately prior to the First Amendment Effective Date.

5.2 Government Compliance.

(a) Maintain its and all of its Subsidiaries' legal existence (except as permitted under Section 6.3 with respect to Subsidiaries only) and good standing in their respective jurisdictions of formation and maintain qualification in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on Borrower's business or operations. Borrower shall comply, and have each Subsidiary comply, in all material respects, with all material laws, ordinances and regulations to which it is subject.

(b) Obtain all of the Governmental Approvals necessary for the performance by Borrower and each of its Subsidiaries of their obligations under the Loan Documents to which it is a party, including any grant of a security interest in the Collateral to Bank. Borrower shall promptly provide copies of any such obtained Governmental Approvals to Bank upon Bank's request.

5.3 Financial Statements, Reports. Deliver to Bank by submitting to the Financial Statement Repository:

(a) Borrowing Base Statement. Only when Advances are outstanding or are being requested by Borrower, a Borrowing Base Statement (and any schedules related thereto and including any other information reasonably requested by Bank with respect to Borrower's Accounts) (i) no later than Friday of each week when a Streamline Period is not in effect, (ii) within thirty (30) days after the end of each month when a Streamline Period is in effect, and (iii) with each request for an Advance;

(b) Accounts Receivable Information. Only when Advances are outstanding or are being requested by Borrower, within thirty (30) days after the end of each month, (i) monthly accounts receivable agings, aged by invoice date, (ii) monthly accounts payable agings, aged by invoice date, and outstanding or held check registers, if any, (iii) monthly reconciliations of accounts receivable agings (aged by invoice date), transaction reports, Deferred Revenue report, and general ledger;

(c) ~~(a)~~ Quarterly Financial Statements. No later than forty-five (45) days after the last day of each of the first three fiscal quarters of Borrower's fiscal year, a company prepared consolidated and consolidating balance sheet and income statement covering Borrower's and each of its Subsidiary's operations for such quarter in a form reasonably acceptable to Bank (the "**Quarterly Financial Statements**"); provided that year-end Quarterly Financial Statements shall be delivered no later than ninety (90) days after the last day of each fiscal year of Borrower;

(d) ~~(b)~~ Compliance Statement. Within forty-five (45) days after the last day of each of the first three fiscal quarters of Borrower (and no later than ninety (90) days after the last day of each fiscal year of Borrower), together with the statements set forth in Section 5.3(~~a~~c), a duly completed Compliance Statement, confirming that as of the end of such month, Borrower was in full compliance with all of the terms and conditions of this Agreement, and setting forth calculations showing compliance with the financial covenants set forth in this Agreement and such other information as Bank may reasonably request, except as noted therein;

(e) ~~(c)~~ Annual Operating Budget and Financial Projections. Within thirty (30) days after the end of each fiscal year of Borrower, and within thirty (30) days of any material updates or amendments thereto, (i) annual operating budgets (including income statements, balance sheets and cash flow statements, by month) for the then-current fiscal year of Borrower, and (ii) annual financial projections for the then-current fiscal year (on a

quarterly basis), in each case as approved by the Board, together with any material related business forecasts used in the preparation of such annual financial projections;

(f) ~~(d)~~ Annual Audited Financial Statements. As soon as available, and in any event within one hundred and eighty (180) days following the end of Borrower's fiscal year, audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion on the financial statements from an independent certified public accounting firm reasonably acceptable to Bank;

(g) ~~(e)~~ SEC Filings. In the event that Borrower or any of its Subsidiaries becomes subject to the reporting requirements under the Exchange Act within five (5) Business Days of filing, notification of the filing and copies of all periodic and other reports, proxy statements and other materials filed by Borrower and/or any of its Subsidiaries or any Guarantor with the SEC, any Governmental Authority succeeding to any or all of the functions of the SEC or with any national securities exchange, or distributed to its shareholders, as the case may be. Documents required to be delivered pursuant to the terms hereof (to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date on which Borrower or any of its Subsidiaries posts such documents, or provides a link thereto, on Borrower's or any of its Subsidiaries' website on the internet at Borrower's or any of its Subsidiaries' website address; provided, however, Borrower shall notify Bank in writing within five (5) Business Days (which may be by electronic mail) of the posting of any such documents;

(h) ~~(f)~~ Security Holder and Subordinated Debt Holder Reports. Within five (5) Business Days of delivery, copies of all material statements, reports and notices made generally available to Borrower's security holders or to any holders of Subordinated Debt (solely in their capacities as security holders or holders of Subordinated Debt and not in any other role);

(i) ~~(g)~~ Beneficial Ownership Information. Prompt written notice of any changes to the beneficial ownership information set out in Section 14 of the Perfection Certificate. Borrower understands and acknowledges that Bank relies on such true, accurate and up-to-date beneficial ownership information to meet Bank's regulatory obligations to obtain, verify and record information about the beneficial owners of its legal entity customers;

(j) ~~(h)~~ Legal Action Notice. Prompt written notice upon becoming aware of any legal actions, investigations or proceedings pending or threatened in writing against Borrower or any of its Subsidiaries (not otherwise already disclosed on the Perfection Certificate delivered around the First Amendment Effective Date) that could reasonably be expected to result in damages or costs to Borrower or any of its Subsidiaries of, individually or in the aggregate, Seven Hundred Fifty Thousand Dollars ($750,000) or more;

(k) ~~(i)~~ Tort Claim Notice. If Borrower shall acquire a commercial tort claim with a value that could reasonably be expected to exceed Five Hundred Thousand Dollars ($500,000), Borrower shall promptly notify Bank in a writing signed by Borrower of the general details thereof and, if so requested by Bank, grant to Bank in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Bank;

(l) ~~(j)~~ Government Filings. Within five (5) Business Days after the same are sent by Borrower or received by Borrower, copies of all material correspondence, reports, documents and other filings by Borrower or any of its Subsidiaries with any Governmental Authority regarding compliance with or maintenance of Governmental Approvals or Applicable Law, in each case that could reasonably be expected to have a material effect on any of the Governmental Approvals material to the business of Borrower;

(m) ~~(k)~~ Registered Organization. If Borrower is not a Registered Organization as of the Effective Date but later becomes one, promptly notify Bank of such occurrence and provide Bank with Borrower's organizational identification number;

(n) ~~(l)~~ Default. Prompt written notice of the occurrence of a Default or Event of Default; and

(o) ~~(m)~~ Other Information. Promptly, from time to time, such other financial information regarding Borrower or any of its Subsidiaries or compliance with the terms of any Loan Documents as reasonably requested by Bank.

Any submission by Borrower of a Compliance Statement, or any other financial statement submitted to the Financial Statement Repository pursuant to this Section 5.3 or otherwise submitted to Bank shall be deemed to be a representation by Borrower that (i) as of the date of such Compliance Statement, or other financial statement, the information and calculations set forth therein are true and correct in all material respects, (ii) as of the end of the compliance period set forth in such submission, Borrower is in complete compliance with all required covenants except as noted in such Compliance Statement, or other financial statement, as applicable, except as noted in such Compliance Statement or other financial statement, as applicable; (iii) as of the date of such submission, no Events of Default have occurred or are continuing, (iv) all representations and warranties other than any representations or warranties that are made as of a specific date in Section 4 remain true and correct in all material respects as of the date of such submission except as noted in such Compliance Statement, or other financial statement, as applicable, (v) as of the date of such submission, Borrower and each of its Subsidiaries has timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 4.9, and (vi) as of the date of such submission, no Liens have been levied or claims made against Borrower or any of its Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Bank.

5.4 ~~Reserved~~Accounts Receivable.

5.5 ~~Reserved.~~

(a) Schedules and Documents Relating to Accounts. Only when Advances are outstanding or are being requested by Borrower, Borrower shall deliver to Bank transaction reports and schedules of collections, as provided in Section 5.3(b), on Bank's standard forms; provided, however, that Borrower's failure to execute and deliver the same shall not affect or limit Bank's Lien and other rights in all of Borrower's Accounts, nor shall Bank's failure to advance or lend against a specific Account affect or limit Bank's Lien and other rights therein. If requested by Bank, Borrower shall furnish Bank with copies (or, at Bank's request, originals) of all contracts, orders, invoices, and other similar documents, and all shipping instructions, delivery receipts, bills of lading, and other evidence of delivery, for any goods the sale or disposition of which gave rise to such Accounts. In addition, Borrower shall deliver to Bank, on its request, the originals of all instruments, chattel paper, security agreements, guarantees and other documents and property evidencing or securing any Accounts, in the same form as received, with all necessary indorsements, and copies of all credit memos.

(b) Disputes. Borrower shall promptly notify Bank of all disputes or claims relating to Accounts that continue for more than thirty (30) days and are with respect to an amount in excess of Two Hundred Thousand Dollars ($200,000) in the aggregate at such time. Borrower may forgive (completely or partially), compromise, or settle any Account for less than payment in full, or agree to do any of the foregoing so long as (i) Borrower does so in good faith, in a commercially reasonable manner, in the ordinary course of business, in arm's-length transactions, and reports the same to Bank in the regular reports provided to Bank; (ii) no Event of Default has occurred and is continuing; and (iii) there shall not be an Overadvance after taking into account all such discounts, settlements and forgiveness.

(c) Collection of Accounts. Within sixty (60) days of the First Amendment Effective Date, Borrower shall direct Account Debtors to deliver or transmit all proceeds of Accounts into a lockbox account, or such other "blocked account" as specified by Bank (either such account, the "Cash Collateral Account"). Whether or not an Event of Default has occurred and is continuing, Borrower shall immediately deliver all payments on and proceeds of Accounts to the Cash Collateral Account. Subject to Bank's right to maintain a reserve pursuant to

Section 5.4(d), all amounts received in the Cash Collateral Account shall be (i) when a Streamline Period is not in effect, applied to immediately reduce the Obligations under the Revolving Line (unless Bank, in its sole discretion, at times when an Event of Default exists, elects not to so apply such amounts), or (ii) when a Streamline Period is in effect, transferred by Bank on a daily basis to Borrower's operating account with Bank. Borrower hereby authorizes Bank to transfer to the Cash Collateral Account any amounts that Bank reasonably determines are proceeds of the Accounts (provided that Bank is under no obligation to do so and this allowance shall in no event relieve Borrower of its obligations hereunder).

(d) Reserves. Notwithstanding any terms in this Agreement to the contrary, at times when a Default or an Event of Default exists, Bank may hold any proceeds of the Accounts and any amounts in the Cash Collateral Account that are not applied to the Obligations pursuant to Section 5.4(c) above (including amounts otherwise required to be transferred to Borrower's operating account with Bank) as a reserve to be applied to any Obligations regardless of whether such Obligations are then due and payable.

(e) Returns. Provided no Event of Default has occurred and is continuing, if any Account Debtor returns any Inventory to Borrower, Borrower shall promptly (i) determine the reason for such return, (ii) issue a credit memorandum to the Account Debtor in the appropriate amount in accordance with Borrower's customary business practices, and (iii) provide a copy of such credit memorandum to Bank, upon request from Bank. In the event any attempted return occurs after the occurrence and during the continuance of any Event of Default, Borrower shall hold the returned Inventory in trust for Bank, and immediately notify Bank of the return of the Inventory.

(f) Verifications; Confirmations; Credit Quality; Notifications. Bank may, from time to time, (i) verify and confirm directly with the respective Account Debtors the validity, amount and other matters relating to the Accounts, either in the name of Borrower or Bank or such other name as Bank may choose, and notify any Account Debtor of Bank's security interest in such Account and/or (ii) conduct a credit check of any Account Debtor to approve any such Account Debtor's credit.

(g) No Liability. Bank shall not be responsible or liable for any shortage or discrepancy in, damage to, or loss or destruction of, any goods, the sale or other disposition of which gives rise to an Account, or for any error, act, omission, or delay of any kind occurring in the settlement, failure to settle, collection or failure to collect any Account, or for settling any Account in good faith for less than the full amount thereof, nor shall Bank be deemed to be responsible for any of Borrower's obligations under any contract or agreement giving rise to an Account. Nothing herein shall, however, relieve Bank from liability for its own gross negligence or willful misconduct.

5.5 Remittance of Proceeds. Except as otherwise provided in Section 5.4(c) and Section 7.1, deliver, in kind, all proceeds arising from the disposition of any Collateral to Bank in the original form in which received by Borrower not later than the following Business Day after receipt by Borrower, to be applied to the Obligations (a) prior to an Event of Default, pursuant to the terms of Section 5.4(c) hereof, and (b) after the occurrence and during the continuance of an Event of Default, pursuant to the terms of Section 8.4 hereof; provided that, if no Event of Default has occurred and is continuing, Borrower shall not be obligated to remit to Bank the proceeds of the sale of worn out or obsolete Equipment disposed of by Borrower in good faith in an arm's length transaction for an aggregate purchase price of One Hundred Thousand Dollars ($100,000) or less (for all such transactions in any fiscal year). Borrower agrees that it will not commingle proceeds of Collateral with any of Borrower's other funds or property, but will hold such proceeds separate and apart from such other funds and property and in an express trust for Bank. Nothing in this Section 5.5 limits the restrictions on disposition of Collateral set forth elsewhere in this Agreement.

5.6 Taxes; Pensions.

(a) Timely file, and require each of its Subsidiaries to timely file (in each case, unless subject to a valid extension), all required tax returns and reports and timely pay, and require each of its Subsidiaries to

timely pay, or file extensions for, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower and each of its Subsidiaries, except for (deferred payment of any taxes contested pursuant to the terms of Section 4.9(a) hereof, and shall deliver to Bank, on demand, appropriate certificates attesting to such payments, and pay, and require each of its Subsidiaries to pay, all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms.

(b) To the extent Borrower or any of its Subsidiaries defers payment of any contested taxes in excess of Fifty Thousand Dollars ($50,000), (i) notify Bank in writing of the commencement of, and any material development in, the proceedings, and (ii) post bonds or take any other steps required to prevent the Governmental Authority levying such contested taxes from obtaining a Lien upon any of the Collateral that is other than a "Permitted Lien."

5.7 Access to Collateral; Books and Records. At reasonable times, on ~~three~~five (~~3~~)5) Business Days' notice (provided no notice is required if an Event of Default has occurred and is continuing), Bank, or its agents, shall have the right to inspect the Collateral and the right to audit and copy Borrower's Books. ~~Such~~The Initial Audit shall be completed within ninety (90) days after the First Amendment Effective Date, and Borrower shall cooperate with Bank in order to timely complete same. Thereafter, (i) when Streamline Period is in effect, such inspections and audits shall be conducted ~~during Borrower's business hours~~ no more often than once every twelve (12) months, unless an Event of Default has occurred and is continuing, in which case such inspections and audits shall occur as often as Bank shall determine is necessary and (ii) when Streamline Period is not in effect, such inspections and audits shall be conducted no more often than once every six (6) months (or as frequently as Bank determines in its sole discretion that conditions warrant), unless an Event of Default has occurred and is continuing, in which case such inspections and audits shall occur as often as Bank shall determine is necessary. The foregoing inspections and audits shall be conducted at Borrower's expense and the charge therefor shall be One Thousand Dollars ($1,000) per person per day (or such higher amount as shall represent Bank's then-current standard charge for the same), plus reasonable out-of-pocket expenses. In the event Borrower and Bank schedule an audit more than eight (8) days in advance, and Borrower cancels or seeks to or reschedules the audit with less than eight (8) days written notice to Bank, then (without limiting any of Bank's rights or remedies) Borrower shall pay Bank a fee of Two Thousand Dollars ($2,000) plus any out-of-pocket expenses incurred by Bank to compensate Bank for the anticipated costs and expenses of the cancellation or rescheduling.

5.8 Insurance.

(a) Keep its business and the Collateral insured for risks and in amounts standard for companies in Borrower's industry and location and as Bank may reasonably request. Insurance policies shall be in a form, with financially sound and reputable insurance companies that are not Affiliates of Borrower, and in amounts that are reasonably satisfactory to Bank.

(b) All property policies shall have a lender's loss payable endorsement showing Bank as lender loss payee. All liability policies shall show, or have endorsements showing, Bank as an additional insured. Bank shall be named as lender loss payee and/or additional insured with respect to any such insurance providing coverage in respect of any Collateral.

(c) Ensure that proceeds payable under any property policy are, at Bank's option, payable to Bank on account of the Obligations. Notwithstanding the foregoing, (a) so long as no Event of Default has occurred and is continuing, Borrower shall have the option of applying the proceeds of any casualty policy up to One Million Dollars ($1,000,000) in the aggregate for all losses under all casualty policies in any one year, toward the replacement or repair of destroyed or damaged property; provided that any such replaced or repaired property (i) shall be of equal or like value as the replaced or repaired Collateral and (ii) shall be deemed Collateral in which Bank has been granted a first priority security interest, and (b) after the occurrence and during the continuance of an Event of Default, all proceeds payable under such casualty policy shall, at the option of Bank, be payable to Bank on account of the Obligations.

(d) At Bank's request, Borrower shall deliver certified copies of insurance policies and evidence of all premium payments. Each provider of any such insurance required under this Section ~~5.8~~6.5 shall agree, by endorsement upon the policy or policies issued by it or by independent instruments furnished to Bank, that it will give Bank twenty (20) days (or ten (10) days' prior written notice in the event of cancellation due to non-payment of premium) prior written notice before any such policy or policies shall be materially altered or canceled. If Borrower fails to obtain insurance as required under this Section 5.8 or to pay any amount or furnish any required proof of payment to third persons and Bank, Bank may make all or part of such payment or obtain such insurance policies required in this Section 5.8, and take any action under the policies Bank deems prudent.

5.9 Accounts.

(a) Maintain all of Borrower's, any of its Subsidiaries', and any Guarantor's operating accounts, depository accounts and excess cash with Bank or Bank's Affiliates, other than Borrower's Foreign Subsidiaries may maintain accounts with third parties other than Bank, provided the aggregate value of such accounts is subject to the terms of Section 6.11 (collectively the "**Permitted Foreign Subsidiary Accounts**").

(b) In addition to the foregoing, Borrower, any Subsidiary of Borrower and any Guarantor, shall obtain any business credit card, Letter of Credit, FX Contract, and cash management services exclusively from Bank, except (i) third party credit cards, as permitted in the defined term "Permitted Indebtedness" part (g); (ii) Borrower's Foreign Subsidiaries may maintain the foregoing bank services with third parties other than Bank, (iii) to the extent that Bank does not have such services in foreign locations, Borrower and its Subsidiaries may maintain the foregoing foreign banking services with third parties other than Bank, and (iv) Borrower may maintain and permit to exist online payment processors used in the ordinary course of business with third parties other than Bank.

(c) In addition to and without limiting the restrictions in (a), Borrower shall provide Bank five (5) days prior written notice before establishing any Collateral Account at or with any bank or financial institution other than Bank or Bank's Affiliates. For each Collateral Account that Borrower at any time maintains, Borrower shall cause the applicable bank or financial institution (other than Bank) at or with which any Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Bank's Lien in such Collateral Account in accordance with the terms hereunder which Control Agreement may not be terminated without the prior written consent of Bank. The provisions of the previous sentence shall not apply to (i) deposit accounts exclusively used for payroll, payroll taxes, and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Bank by Borrower as such, and (ii) the Permitted Foreign Subsidiary Accounts.

5.10 ~~**Reserved.**~~**Financial Covenant (Net Revenue).** When a Financial Covenant Measuring Period is in effect, Borrower shall achieve Net Revenue (measured in accordance with GAAP on a trailing six (6) month basis), tested quarterly on the last day of each calendar quarter, in an amount equal to or greater than the levels to be agreed upon between Borrower and Bank with respect to which Borrower hereby agrees: (i) shall be documented in an amendment to this Agreement, in form and substance acceptable to Bank, which amendment shall be executed no later than February 28th of each year beginning with February 28, 2024 with Borrower's failure to enter into such amendment to this Agreement to reset such covenant levels on or prior to February 28th of each year shall be an immediate and non-curable Event of Default hereunder; (ii) shall be based on Borrower's projections delivered to Bank in accordance with Section 5.3(e) hereof and acceptable to Bank in its commercially reasonable discretion with such projections for Borrower's 2024 fiscal year showing annual Net Revenue of not less than [***]. Notwithstanding anything to the contrary herein, if a Financial Covenant Measuring Period is occurring at any point between January 1, 2024 and February 28, 2024, then Borrower's Net Revenue (measured in accordance with GAAP on a trailing six (6) month basis) for the period ending December 31, 2023 shall be tested and such Net Revenue shall not be less than [***]Dollars.

5.11 Protection of Intellectual Property Rights.

(a) (i) Use commercially reasonable efforts to protect, defend and maintain the validity and enforceability of Borrower's and each Subsidiary's Intellectual Property, except to the extent that such failure to do so would not reasonably be expected to have a material adverse effect on Borrower's business or operations or that such Intellectual Property does not have material value; (ii) promptly advise Bank in writing of infringements or any other event that could reasonably be expected to materially and adversely affect the value Borrower's and each Subsidiary's Intellectual Property that has material value; and (iii) not allow any Intellectual Property material to Borrower's or any Subsidiary's business to be abandoned, forfeited or dedicated to the public without Bank's written consent.

(b) Provide written notice to Bank within thirty (30) days of entering or becoming bound by any Restricted License (other than over-the-counter software that is commercially available to the public). Borrower shall take such commercially reasonable steps as Bank requests to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (i) any such Restricted License to be deemed "Collateral" and for Bank to have a security interest in it that might otherwise be restricted or prohibited by law or by the terms of any such Restricted License, whether now existing or entered into in the future, and (ii) Bank to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Bank's rights and remedies under this Agreement and the other Loan Documents.

5.12 Litigation Cooperation. From the date hereof and continuing through the termination of this Agreement, make available to Bank, without expense to Bank, Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Bank may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Bank with respect to any Collateral or relating to Borrower.

5.13 Reserved.

5.14 Formation or Acquisition of Subsidiaries. Notwithstanding and without limiting the negative covenants contained in Sections 6.3 and 6.7 hereof, at the time that Borrower or any Guarantor forms any Subsidiary or acquires any Subsidiary after the Effective Date (including, without limitation, pursuant to a Division), Borrower and such Guarantor shall (a) cause such new Subsidiary to provide to Bank a joinder to this Agreement to become a co-borrower hereunder or a guaranty to become a Guarantor hereunder (as determined by Bank in its sole discretion), together with documentation, all in form and substance satisfactory to Bank (including being sufficient to grant Bank a first priority Lien (subject to Permitted Liens) in and to the assets of such newly formed or acquired Subsidiary that constitute Collateral), (b) provide to Bank appropriate certificates and powers and financing statements, pledging (i) all of the direct or beneficial ownership interest in such new Subsidiary, in form and substance reasonably satisfactory to Bank; and (c) provide to Bank all other documentation in form and substance reasonably satisfactory to Bank, including one or more opinions of counsel satisfactory to Bank, which in its opinion is appropriate with respect to the execution and delivery of the applicable documentation referred to above. Any document, agreement, or instrument executed or issued pursuant to this Section 5.14 shall be a Loan Document.

5.15 Inventory; Returns. Keep all Inventory in good and marketable condition, free from material defects. Returns and allowances between Borrower and its Account Debtors shall follow Borrower's customary practices as they exist at the Effective Date. Borrower shall promptly notify Bank of all returns, recoveries, disputes and claims that involve more than Two Hundred Fifty Thousand Dollars ($250,000) (measured as to any single return, recovery, dispute or claim, and not in the aggregate at such time).

5.16 Further Assurances. Execute any further instruments and take such further action as Bank reasonably requests to perfect, protect, ensure the priority of or continue Bank's Lien on the Collateral or to affect the purposes of this Agreement.

5.17 Sanctions. (a) Not, and not permit any of its Subsidiaries to, engage in any of the activities described in Section 4.11 in the future; (b) not, and not permit any of its Subsidiaries to, become a Sanctioned Person; (c) ensure that the proceeds of the Obligations are not used to violate any Sanctions; and (d) deliver to Bank

any certification or other evidence requested from time to time by Bank in its sole discretion, confirming each such Person's compliance with this Section 5.17. In addition, have implemented, and will consistently apply while this Agreement is in effect, reasonable procedures to ensure that the representations and warranties in Section 4.11 remain true and correct while this Agreement is in effect.

5.18 Post-Closing Obligations.

(a) As soon as possible, but in any event not later than the date that is ~~fifteen~~thirty (~~15~~30) days after the First Amendment Effective Date, Borrower shall deliver to Bank ~~a duly executed landlord's consent in favor of Bank for Borrower's leased location at 2380-2390 Owen Street, Santa Clara, CA 95954~~evidence satisfactory to Bank that the insurance policies and endorsements required by Section 5.8 hereof are in full force and effect, together with appropriate evidence showing lender loss payable and additional insured clauses or endorsements in favor of Bank.

(b) As soon as possible, but in any event not later than the date that is ~~thirty~~five (~~30~~5) days after the First Amendment Effective Date, Borrower shall deliver to Bank a duly executed ~~bailee's waiver in favor of Bank for the bailee location at 1125 W. Pinnacle Peak Road, Phoenix, AZ 85027, where Borrower maintains property with a third party~~Control Agreement with U.S. Bank.

6. NEGATIVE COVENANTS

Borrower shall not do any of the following without Bank's prior written consent:

6.1 Dispositions. Convey, sell, lease, transfer, assign, or otherwise dispose of (including, without limitation, pursuant to a Division) (collectively, "**Transfer**"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn-out, surplus or obsolete Equipment that is, in the reasonable judgment of Borrower, no longer economically practicable to maintain or useful in the ordinary course of business of Borrower; (c) consisting of Permitted Liens and Permitted Investments; (d) consisting of the sale or issuance of any stock, partnership, membership, or other ownership interest or other equity securities of Borrower permitted under Section 6.2 of this Agreement; (e) consisting of Borrower's or its Subsidiaries' use or transfer of money or Cash Equivalents in a manner that is not prohibited by the terms of this Agreement or the other Loan Documents, including without limitation cash returns or refunds of customer payments; (f) of non-exclusive licenses for the use of the property of Borrower or its Subsidiaries in the ordinary course of business, and other licenses permitted pursuant to part (h) of the defined Permitted Liens; (g) other Transfers not to exceed One Hundred Thousand Dollars ($100,000) in any twelve (12) month period; and (h) other Transfers in which Borrower will receive cash proceeds in an amount equal to no less than seventy-five percent (75%) of such other Transfer consideration (fixed or contingent) paid or payable to Borrower or its Subsidiary.

For the avoidance of doubt, none of (a) the sale of any Permitted Convertible Indebtedness, (b) the sale of any Warrant Transaction, (c) the purchase of any Bond Hedge Transaction or (d) the performance by Borrower of its obligations under any Permitted Convertible Indebtedness, any Warrant Transaction or any Bond Hedge Transaction (including the settlement or termination of any Bond Hedge Transaction or Warrant Transaction) shall constitute a Transfer.

6.2 Changes in Business, Management, Control, or Business Locations. (a) Engage in or permit any of its Subsidiaries to engage in any business other than the businesses currently engaged in by Borrower and such Subsidiary, as applicable, or reasonably related thereto; (b) liquidate or dissolve or permit any of its Subsidiaries to liquidate or dissolve (unless such Subsidiary's assets are transferred to Borrower); (c) fail to provide notice to Bank of any Key Person departing from or ceasing to be employed by Borrower within seven (7) Business Days after such Key Person's departure from Borrower; (d) permit, allow or suffer to occur any Change in Control; (e) without at least ten (10) days prior written notice to Bank, (i) add any new offices or business locations, including warehouses (unless such new offices or business locations contain less than Two Hundred Thousand Dollars

($200,000) in Borrower's assets or property) or deliver any portion of the Collateral valued, individually or in the aggregate, in excess of Two Hundred Thousand Dollars ($200,000) to a bailee at a location other than to a bailee and at a location already disclosed in the Perfection Certificate, or (f) without at least twenty (20) days prior written notice to Bank (i) change its jurisdiction of organization, (ii) change its organizational structure or type, (iii) change its legal name, or, (iv) change any organizational number (if any) assigned by its jurisdiction of organization. If Borrower intends to add any new offices or business locations, including warehouses, containing in excess of Two Hundred Thousand Dollars ($200,000) of Borrower's assets or property, then Borrower will cause the landlord of any such new offices or business locations, including warehouses, to execute and deliver a landlord consent in form and substance reasonably satisfactory to Bank. If Borrower intends to deliver any portion of the Collateral valued, individually or in the aggregate, in excess of Two Hundred Thousand Dollars ($200,000) to a bailee, and Bank and such bailee are not already parties to a bailee agreement governing both the Collateral and the location to which Borrower intends to deliver the Collateral, then Borrower will cause such bailee to execute and deliver a bailee agreement in form and substance reasonably satisfactory to Bank. For the avoidance of doubt, no landlord or bailee waivers shall be required for or with respect to any foreign locations of Borrower or its Subsidiaries.

6.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with any other Person, or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the stock, partnership, membership, or other ownership interest or other equity securities or property of another Person (including, without limitation, by the formation of any Subsidiary or pursuant to a Division), except (i) if (a) Borrower has complied with the notice requirements applicable to prepayments hereunder, and (b) prior to or contemporaneously with the closing of such transaction, all Obligations are paid in full in cash, and all of Bank's obligations to lend to Borrower under this Agreement are terminated, and/or (iii) Permitted Acquisitions. A Subsidiary may merge or consolidate into another Subsidiary or into Borrower.

6.4 Indebtedness. Create, incur, assume, or be liable for any Indebtedness, or permit any Subsidiary to do so, other than Permitted Indebtedness.

6.5 Encumbrance. Create, incur, allow, or suffer to exist any Lien on any of its property, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, in each case as to the foregoing except for Permitted Liens, permit any Collateral not to be subject to the first priority security interest granted herein, other than Permitted Liens, or enter into any agreement, document, instrument or other arrangement (except with or in favor of Bank) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower or any Subsidiary from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or any Subsidiary's Intellectual Property, except as is otherwise permitted in Section 6.1 hereof and the definition of "Permitted Liens" herein.

6.6 Maintenance of Collateral Accounts. Maintain any Collateral Account except pursuant to the terms of Section 5.9(c).

6.7 Distributions; Investments. (a) Pay any dividends or make any distribution or payment or redeem, retire or purchase any stock, partnership, membership, or other ownership interest or other equity securities, provided that Borrower may (i) convert any of its convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof, (ii) pay dividends solely in common stock or equity interests, (iii) repurchase the stock of former employees, officers, directors or consultants pursuant to stock repurchase agreements or termination of employment or service or repurchases pursuant to rights of first refusal in Borrower's bylaws, so long as an Event of Default does not exist at the time of any such repurchase and would not exist after giving effect to any such repurchase; provided the aggregate amount of all such repurchases shall not exceed Five Hundred Thousand Dollars ($500,000) per fiscal year, (iv) pay cash distributions in lieu of issuing fractional shares; provided the aggregate amount of all such payments shall not exceed Two Hundred Thousand Dollars ($200,000) per fiscal year , (v) distribute equity securities to former or current employees, officers, consultants or directors pursuant to the exercise of employee stock options approved by the Board, (vi) pay, in connection with any Permitted Acquisition by Borrower or any of its Subsidiaries, (A) the receipt or acceptance of the return to Borrower or any of its Subsidiaries of stock or equity interests of Borrower constituting a portion of the

purchase price consideration in settlement of indemnification claims, or as a result of a purchase price adjustment (including earn-outs or similar obligations) and (B) payments or distributions to equity holders pursuant to appraisal rights required under requirements of law; (vii) the distribution of rights pursuant to any shareholder rights plan or the redemption of such rights for nominal consideration in accordance with the terms of any shareholder rights plan, and (viii) for the avoidance of doubt, Subsidiaries of Borrower shall be permitted to, directly or indirectly, pay dividends or make distributions to other Subsidiaries or to Borrower, or (b) directly or indirectly make any Investment (including, without limitation, by the formation of any Subsidiary) other than Permitted Investments, or permit any of its Subsidiaries to do so.

Notwithstanding the foregoing, or anything to the contrary herein, and for the avoidance of doubt, this Section 6.7 shall not prohibit (i) the conversion by holders of (including any cash payment upon conversion), or required payment of any principal or premium on, or required payment of any interest with respect to, any Permitted Convertible Debt, in each case, in accordance with the terms of the indenture governing such Permitted Convertible Debt; *provided* that the preceding sentence shall only allow principal payments with respect to any repurchase in connection with the redemption of Permitted Convertible Debt upon satisfaction of a condition related to the stock price of the Borrower's common stock if the Redemption Conditions are satisfied in respect of such redemption; *provided further* that, to the extent both (a) the aggregate amount of cash payable upon conversion or redemption of any Permitted Convertible Debt (excluding any required payment of interest with respect to such Permitted Convertible Debt and excluding any payment of cash in lieu of a fractional share due upon conversion thereof) exceeds the aggregate principal amount thereof and (b) such conversion or redemption does not trigger or correspond to an exercise or early unwind or settlement of a corresponding portion of the Bond Hedge Transactions constituting Permitted Call Spread Agreements relating to such Permitted Convertible Debt (including, for the avoidance of doubt, the case where there is no Bond Hedge Transaction constituting a Permitted Call Spread Agreement relating to such Permitted Convertible Debt), the payment of such excess cash (any such payment, a "**Cash Excess Payment**") shall not be permitted by this clause (i); and (ii) any required payment with respect to (including, for the avoidance of doubt, the payment of the relevant premium for the purchase thereof), or required early unwind or settlement of, any Permitted Call Spread Agreement, in each case, in accordance with the terms of the agreement governing such Permitted Call Spread Agreement; *provided* that, to the extent cash is required to be paid under a Warrant Transaction as a result of the election of "cash settlement" (or substantially equivalent term) as the "settlement method" (or substantially equivalent term) thereunder by the Borrower (or its Affiliate) (including in connection with the exercise and/or early unwind or settlement thereof), the payment of such cash shall not be permitted by this clause (ii). Notwithstanding the foregoing, the Borrower may repurchase, exchange or induce the conversion of Permitted Convertible Debt by delivery of shares of the Borrower's common stock and/or a different series of Permitted Convertible Debt (which series (I) matures after, and does not require any scheduled amortization or other scheduled payments of principal prior to, the analogous date under the indenture governing the Permitted Convertible Debt that are so repurchased, exchanged or converted and (II) has terms, conditions and covenants that are commercially reasonable to the Borrower (as determined by the Borrower in good faith) (any such series of Permitted Convertible Debt, "**Refinancing Convertible Debt**") and/or by payment of cash (x) in lieu of any fractional shares, (y) in respect of accrued and unpaid interest of such Permitted Convertible Debt and (z) additional cash in an amount that does not exceed the proceeds received by the Borrower from the substantially concurrent issuance of shares of the Borrower's common stock and/or a Refinancing Convertible Debt plus the net cash proceeds, if any, received by the Borrower pursuant to the related exercise or early unwind or termination of the related Permitted Call Spread Agreements pursuant to the immediately following proviso; *provided* that, substantially concurrently with, or a commercially reasonable period of time before or after, the related settlement date for the Permitted Convertible Debt that is so repurchased, exchanged or converted, the Borrower shall (and, for the avoidance of doubt, shall be permitted under this Section 7.7 to) exercise or unwind or terminate early (whether in cash, shares or any combination thereof) the portion of the Permitted Call Spread Agreements, if any, corresponding to such Permitted Convertible Debt that is so repurchased, exchanged or converted.

6.8 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower, except for (a) transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person; (b) sales of Borrower's equity securities to the then-existing investors

of Borrower in connection with a bona fide equity financing by the Board so long as such sale shall not result in a violation of the Change of Control provision in Section 6.2, (c) debt financings from Borrower's investors so long as all such Indebtedness shall constitute Subordinated Debt, (d) reasonable and customary compensation arrangements and benefit plans for officers, and other employees of Borrower approved by the Board, (e) reasonable and customary compensation arrangements for fees and costs paid to members of the Board in the ordinary course of business, and (f) Investments of the type described in and permitted under clauses (g) and/or (h) of the definition of "Permitted Investments" herein.

6.9 Subordinated Debt. Except as expressly permitted under the terms of the subordination, intercreditor, or other similar agreement to which any Subordinated Debt is subject: (a) make or permit any payment on such Subordinated Debt; (b) amend any provision in any document relating to such Subordinated Debt which would increase the amount thereof, or (c) provide for earlier or greater principal, interest, or other payments thereon, or adversely affect the subordination thereof to Obligations owed to Bank in contravention of the terms of such the subordination, intercreditor, or other similar agreement.

6.10 Compliance. (a) Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of any Credit Extension for that purpose; (b)(i) fail to meet the minimum funding requirements of ERISA, (ii) permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur, (iii) fail to comply with the Federal Fair Labor Standards Act or (iv) violate any other law or regulation, if the foregoing subclauses (i) through (iv), individually or in the aggregate, could reasonably be expected to have a material adverse effect on Borrower's business or operations, or permit any of its Subsidiaries to do so; or (c) withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any material liability of Borrower, including any material liability to the Pension Benefit Guaranty Corporation or its successors or any other Governmental Authority.

6.11 Cash and Cash Equivalents held by Foreign Subsidiaries. The aggregate value of cash and Cash Equivalents held by all Foreign Subsidiaries of Borrower to exceed Two Million Five Hundred Thousand Dollars ($2,500,000) for more than five (5) Business Days in each calendar month.

6.12 Value of Assets held by Foreign Subsidiaries. The aggregate value of the assets owned by the Foreign Subsidiaries of Borrower shall not exceed twenty percent (20%) of the aggregate value of all assets owned by the Borrower and its Subsidiaries.

6.13 Redemption of Permitted Convertible Debt. Exercise any redemption right with respect to any Permitted Convertible Debt upon satisfaction of a condition related to the stock price of the Borrower's common stock, unless the Redemption Conditions are satisfied in respect of such redemption.

7. EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "**Event of Default**") under this Agreement:

7.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on any Credit Extension on its due date, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day cure period shall not apply to payments due on the Revolving Line Maturity Date or Term Loan Maturity Date), in each unless such late payment is due to Bank's failure to auto-debit such payment when sufficient funds were contained in the Designated Deposit Account (or if insufficient funds are contained therein, or if an Event of Default has occurred and is continuing, any of Borrower's other accounts at

Bank). During the cure period, the failure to make or pay any payment specified under clause (b) hereunder is not an Event of Default (but no Credit Extension will be made during the cure period);

7.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Section 5 (other than Sections 5.2 (Government Compliance), 5.12 (Litigation Cooperation), 5.15 (Inventory; Returns) and 5.16 (Further Assurances)) or violates any covenant in Section 6; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Documents, and as to any default (other than those specified in this Section 7) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default (but no Credit Extensions shall be made during such cure period). Cure periods provided under this section shall not apply ~~to~~, among other things, to financial covenants or any other covenants that are required to be satisfied, completed or tested by a date certain or any covenants set forth in ~~Section 7.2(a)~~clause (a) above;

7.3 Material Adverse Change. A Material Adverse Change occurs;

7.4 Attachment; Levy; Restraint on Business.

(a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or any Subsidiary with a value in excess of Two Hundred Thousand Dollars ($200,000), or (ii) a notice of lien or levy in an amount in excess of Two Hundred Thousand Dollars ($200,000), is filed against any of Borrower's or any of its Subsidiaries' assets by any Governmental Authority, and the same under subclauses (i) and (ii) hereof are not, within fifteen (15) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); provided, however, no Credit Extensions shall be made during any fifteen (15) day cure period; or

(b) (i) any material portion of Borrower's or any of its Subsidiaries' assets with a value in excess of Two Hundred Thousand Dollars ($200,000), is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower or any of its Subsidiaries from conducting all or any material part of its business;

7.5 Insolvency. (a) Borrower or Borrower and of its Subsidiaries (taken as a whole) is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower or any of its Subsidiaries begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower or any of its Subsidiaries and is not dismissed or stayed within forty-five (45) days (but no Credit Extensions shall be made while any of the conditions described in clause (a) exist and/or until any Insolvency Proceeding is dismissed);

7.6 Other Agreements. There is, under any agreement to which Borrower, any of Borrower's Subsidiaries, or any Guarantor is a party with a third party or parties, (a) any default by Borrower (after applicable grace and/or cure periods) resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount individually or in the aggregate in excess of Five Hundred Thousand Dollars ($500,000); or (b) any breach or default by Borrower, any of Borrower's Subsidiaries, or Guarantor the result of which could reasonably be expected to have a material adverse effect on Borrower's, any of Borrower's Subsidiaries', or any Guarantor's business or operations (taken as a whole)

7.7 Judgments; Penalties. One or more fines, penalties or final judgments, orders or decrees for the payment of money in an amount, individually or in the aggregate, of at least Five Hundred Thousand Dollars ($500,000)(not covered by independent third-party insurance as to which liability has been accepted by such insurance carrier) shall be rendered against Borrower or any of its Subsidiaries by any Governmental Authority, and the same are not, within ten (10) days after the entry, assessment or issuance thereof, discharged, satisfied or paid, or after execution thereof, or stayed pending appeal, or such judgments are not discharged, satisfied or paid prior to the expiration of any such stay (provided that no Credit Extensions will be made prior to the discharge, satisfaction, payment, or stay of such fine, penalty, judgment, order or decree);

7.8 Misrepresentations. Borrower or any of its Subsidiaries or any Responsible Person acting for Borrower or any of its Subsidiaries knowingly makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Bank or to induce Bank to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made (it being agreed and acknowledged by Bank that the projections and forecasts provided by Borrower or any of its Subsidiaries in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results);

7.9 Subordinated Debt. If: (a) any document, instrument, or agreement evidencing any Subordinated Debt shall for any reason be revoked or invalidated or otherwise cease to be in full force and effect (other than in accordance with the terms of such document, instrument or agreement) or any Person (other than Bank)) shall be in breach thereof or contest in any manner the validity or enforceability thereof or deny that it has any further liability or obligation thereunder; (b) a default or event of default (however defined) has occurred under any document, instrument, or agreement evidencing any Subordinated Debt, which default shall not have been cured or waived within any applicable grace period; or (c) the Obligations shall for any reason be subordinated or shall not have the priority contemplated by the applicable subordination or intercreditor agreement;

7.10 Lien Priority. There is a material impairment in the perfection or priority of Bank's security interest in the Collateral (unless such failure is caused by Bank's gross negligence or willful misconduct);

7.11 Guaranty. (a) Any guaranty of any Obligations terminates or ceases for any reason to be in full force and effect (except due to termination in accordance with the terms of such guaranty); (b) any Guarantor does not perform any material obligation or covenant under any guaranty of the Obligations; (c) any circumstance described in Sections 7.3, 7.4, 7.5, 7.6, 7.7, or 7.8 of this Agreement occurs with respect to any Guarantor (subject to the applicable cure and grace periods herein), (d) the death, liquidation, winding up, or termination of existence of any Guarantor; or (e)a material impairment in the perfection or priority of Bank's Lien in the collateral provided by Guarantor or in the value of such collateral ; or

7.12 Governmental Approvals. Any Governmental Approval shall have been (a) revoked, rescinded, suspended, modified in an adverse manner or not renewed in the ordinary course for a full term or (b) subject to any decision by a Governmental Authority that designates a hearing with respect to any applications for renewal of any of such Governmental Approval or that could result in the Governmental Authority taking any of the actions described in clause (a) above, and such decision or such revocation, rescission, suspension, modification or non-renewal (i) causes, or could reasonably be expected to cause, a Material Adverse Change, or (ii) materially and adversely affects the legal qualifications of Borrower or any of its Subsidiaries to hold such Governmental Approval in any applicable jurisdiction and such revocation, rescission, suspension, modification or non-renewal could reasonably be expected to materially and adversely affect the status of or legal qualifications of Borrower or any of its Subsidiaries to hold any Governmental Approval in any other jurisdiction that is material to the operation of Borrower's business.

8. BANK'S RIGHTS AND REMEDIES

8.1 Rights and Remedies. Upon the occurrence and during the continuance of an Event of Default, Bank may, without notice or demand, do any or all of the following:

(a) declare all Obligations immediately due and payable (but if an Event of Default described in Section 7.5 occurs all Obligations are immediately due and payable without any action by Bank);

(b) stop advancing money or extending credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Bank;

(c) demand that Borrower (i) deposit cash with Bank in an amount equal to at least (A) one hundred and five percent (105.0%) of the aggregate face amount of any Letters of Credit denominated in Dollars remaining undrawn, and (B) one hundred and fifteen percent (115.0%) of the Dollar Equivalent of the aggregate face amount of any Letters of Credit denominated in a Foreign Currency remaining undrawn (plus, in each case, all interest, fees, and costs due or estimated by Bank to become due in connection therewith), to secure all of the Obligations relating to such Letters of Credit, as collateral security for the repayment of any future drawings under such Letters of Credit, and Borrower shall forthwith deposit and pay such amounts, and (ii) pay in advance all letter of credit fees scheduled to be paid or payable over the remaining term of any Letters of Credit;

(d) terminate any FX Contracts (it being understood and agreed that (i) Bank is not obligated to deliver the currency which Borrower has contracted to receive under any FX Contract, and Bank may cover its exposure for any FX Contracts by purchasing or selling currency in the interbank market as Bank deems appropriate; (ii) Borrower shall be liable for all losses, damages, costs, margin obligations and expenses incurred by Bank arising from Borrower's failure to satisfy its obligations under any FX Contract or the execution of any FX Contract; and (iii) Bank shall not be liable to Borrower for any gain in value of a FX Contract that Bank may obtain in covering Borrower's breach);

(e) verify the amount of, demand payment of and performance under, and collect any Accounts and General Intangibles, settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Bank considers advisable, and notify any Person owing Borrower money of Bank's security interest in such funds;

(f) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Bank requests and make it available as Bank designates. Bank may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Bank a license to enter and occupy any of its premises, without charge, to exercise any of Bank's rights or remedies;

(g) apply to the Obligations any (i) balances and deposits of Borrower it holds, or (ii) amount held by Bank owing to or for the credit or the account of Borrower;

(h) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. For use solely upon the occurrence and during the continuation of an Event of Default, Bank is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, Patents, Copyrights, mask works, rights of use of any name, trade secrets, trade names, Trademarks, and advertising matter, or any similar property as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section 8.1, Borrower's rights under all licenses and all franchise agreements inure to Bank's benefit;

(i) place a "hold" on any account maintained with Bank and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

(j) demand and receive possession of Borrower's Books; and

(k) exercise all rights and remedies available to Bank under the Loan Documents or at law or equity, including all remedies provided under the Code or any Applicable Law (including disposal of the Collateral pursuant to the terms thereof).

8.2 Power of Attorney. Borrower hereby irrevocably appoints Bank as its true and lawful attorney-in-fact, (a) exercisable only following the occurrence and during the continuance of an Event of Default, to: (i) endorse Borrower's name on any checks, payment instruments, or other forms of payment or security; (ii) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (iii) demand, collect, sue, and give releases to any Account Debtor for monies due, settle and adjust disputes and claims about the Accounts directly with Account Debtors, and compromise, prosecute, or defend any action, claim, case, or proceeding about any Collateral (including filing a claim or voting a claim in any bankruptcy case in Bank's or Borrower's name, as Bank chooses); (iv) make, settle, and adjust all claims under Borrower's insurance policies; (v) pay, contest or settle any Lien, charge, encumbrance, security interest, or other claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (vi) transfer the Collateral into the name of Bank or a third party as the Code permits; and (b) regardless of whether an Event of Default has occurred, to sign Borrower's name on any documents necessary to perfect or continue the perfection of Bank's security interest in the Collateral. Bank's foregoing appointment as Borrower's attorney in fact, and all of Bank's rights and powers, coupled with an interest, are irrevocable until such time as all Obligations (other than inchoate indemnity obligations) have been paid in full in cash, Bank is under no further obligation to make Credit Extensions and the Loan Documents have been terminated. Bank shall not incur any liability in connection with or arising from the exercise of such power of attorney and shall have no obligation to exercise any of the foregoing rights and remedies.

8.3 Protective Payments. If Borrower fails to obtain the insurance called for by Section 5.8 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this Agreement or any other Loan Document or which may be required to preserve the Collateral, Bank may obtain such insurance or make such payment, and all amounts so paid by Bank are Bank Expenses and immediately due and payable, bearing interest at the then highest rate applicable to the Obligations, and secured by the Collateral. Bank will make reasonable efforts to provide Borrower with notice of Bank obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Bank are deemed an agreement to make similar payments in the future or Bank's waiver of any Event of Default.

8.4 Application of Payments and Proceeds. If an Event of Default has occurred and is continuing, Bank shall have the right to apply in any order any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations in such order as Bank shall determine in its sole discretion. Any surplus shall be paid to Borrower or other Persons legally entitled thereto; Borrower shall remain liable to Bank for any deficiency. Following the occurrence and during the continuation of an Event of Default, if Bank, in its commercially reasonable discretion, directly or indirectly, enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Bank shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Bank of cash therefor.

8.5 Bank's Liability for Collateral. Bank's sole duty with respect to the custody, safekeeping and physical preservation of the Collateral in its possession or under its control, under Section 9-207 of the Code or otherwise, shall be to deal with it in the same manner as Bank deals with its own property consisting of similar instruments or interests. Borrower bears all risk of loss, damage or destruction of the Collateral.

8.6 No Waiver; Remedies Cumulative. Bank's failure, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Bank thereafter to demand strict performance and compliance herewith or therewith. No

waiver hereunder shall be effective unless signed by the party granting the waiver and then is only effective for the specific instance and purpose for which it is given. Bank's rights and remedies under this Agreement and the other Loan Documents are cumulative. Bank has all rights and remedies provided under the Code, by law, or in equity. Bank's exercise of one right or remedy is not an election and shall not preclude Bank from exercising any other remedy under this Agreement or other remedy available at law or in equity, and Bank's waiver of any Event of Default is not a continuing waiver. Bank's delay in exercising any remedy is not a waiver, election, or acquiescence.

8.7 Demand Waiver. Borrower waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Bank on which Borrower is liable.

9. NOTICES

All notices, consents, requests, approvals, demands, or other communication by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by electronic mail; (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address or email address indicated below; provided that, for clause (b), if such notice, consent, request, approval, demand or other communication is not sent during the normal business hours of the recipient, it shall be deemed to have been sent at the opening of business on the next Business Day of the recipient. Bank or Borrower may change its mailing or electronic mail address by giving the other party written notice thereof in accordance with the terms of this Section 9.

If to Borrower: SI-Bone, Inc.
471 El Camino Real, Suite 101
Santa Clara, CA 95050
Attn: Laura Francis, CEO; and
Anshul Maheshwari, CFO
Email: lfrancis@si-bone.com; and
Anshul.Maheshwari@si-bone.com

with a copy to (which shall not constitute notice):

Cooley LLP
55 Hudson Yards
New York, New York, 10001-2157
Attn: Patrick Flanagan
Email: pflanagan@cooley.com

If to Bank: Silicon Valley Bank
505 Howard Street, Floor 3
San Francisco, CA 94105
Attn: Mark Davis
Email: mdavis@svb.com

with a copy to (which shall not constitute notice):

DLA Piper LLP (US)
401 B Street, Suite 1700
San Diego, California 92101
Attn: Matt Schwartz, Esq.
Email: matt.schwartz@us.dlapiper.com

10. CHOICE OF LAW, VENUE AND JURY TRIAL WAIVER; JUDICIAL REFERENCE

Except as otherwise expressly provided in any of the Loan Documents, California law governs the Loan Documents without regard to principles of conflicts of law that would require the application of the laws of another jurisdiction. Borrower and Bank each irrevocably and unconditionally submit to the exclusive jurisdiction of the State and Federal courts in Santa Clara County, California; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Bank from bringing suit or taking other legal action in any other jurisdiction with respect to the Loan Documents or to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Bank. Borrower expressly, irrevocably and unconditionally submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby irrevocably and unconditionally waives, to the fullest extent permitted by Applicable Law, any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby irrevocably and unconditionally consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in, or subsequently provided by Borrower in accordance with, Section 9 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND BANK EACH WAIVES ITS RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION UNDER THIS AGREEMENT, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR THE PARTIES HERETO TO ENTER INTO THIS AGREEMENT. EACH PARTY HERETO HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY, if the above waiver of the right to a trial by jury is not enforceable, the parties hereto agree that any and all disputes or controversies of any nature between them arising at any time shall be decided by a reference to a private judge, mutually selected by the parties (or, if they cannot agree, by the Presiding Judge of the Santa Clara County, California Superior Court) appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts), sitting without a jury, in Santa Clara County, California; and the parties hereby submit to the jurisdiction of such court. The reference proceedings shall be conducted pursuant to and in accordance with the provisions of California Code of Civil Procedure Sections 638 through 645.1, inclusive. The private judge shall have the power, among others, to grant provisional relief, including without limitation, entering temporary restraining orders, issuing preliminary and permanent injunctions and appointing receivers. All such proceedings shall be closed to the public and confidential and all records relating thereto shall be permanently sealed. If during the course of any dispute, a party desires to seek provisional relief, but a judge has not been appointed at that point pursuant to the judicial reference procedures, then such party may apply to the Santa Clara County, California Superior Court for such relief. The proceeding before the private judge shall be conducted in the same manner as it would be before a court under the rules of evidence applicable to judicial proceedings. The parties shall be entitled to discovery which shall be conducted in the same manner as it would be before a court under the rules of discovery applicable to judicial proceedings. The private judge shall oversee discovery and may enforce all discovery rules and orders applicable to judicial proceedings in the same manner as a trial court judge. The parties agree that the selected or appointed private judge shall have the power to decide all issues in the action or proceeding, whether of fact or of law, and shall report a statement of decision thereon pursuant to California Code of Civil Procedure Section 644(a). Nothing in this paragraph shall limit the right of any party at any time to exercise self-help remedies, foreclose against collateral, or obtain provisional remedies. The private judge shall also determine all issues relating to the applicability, interpretation, and enforceability of this paragraph.

This Section 10 shall survive the termination of this Agreement and the repayment of all Obligations.

11. GENERAL PROVISIONS

11.1 Termination Prior to Revolving Line Maturity Date or Term Loan Maturity Date; Survival. All covenants, representations and warranties made in this Agreement shall continue in full force until this Agreement has terminated pursuant to its terms and all Obligations (other than inchoate indemnity obligations) have been satisfied. So long as Borrower has satisfied the Obligations (other than inchoate indemnity obligations, and any other obligations which, by their terms, are to survive the termination of this Agreement and the repayment of all Obligations, and any Obligations under Bank Services Agreements that are cash collateralized in accordance with Section 3.1 of this Agreement), this Agreement may be terminated prior to the Revolving Line Maturity Date and the Term Loan Maturity Date by Borrower, effective three (3) Business Days after written notice of termination is given to Bank. Those obligations that are expressly specified in this Agreement as surviving this Agreement's termination and the repayment of all Obligations shall continue to survive notwithstanding this Agreement's termination and the repayment of all Obligations.

11.2 Successors and Assigns. This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign or transfer this Agreement or any rights or obligations under it without Bank's prior written consent (which may be granted or withheld in Bank's sole discretion) and any other attempted assignment or transfer by Borrower shall be null and void. Bank has the right, without the consent of or notice to Borrower, to sell, transfer, assign, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights, and benefits under this Agreement and the other Loan Documents. Notwithstanding the foregoing, or anything to the contrary herein, so long as no Event of Default shall have occurred and is continuing, Bank shall not assign its interest in the Loan Documents to any Person who is (a) a competitor of Borrower, whether as an operating company or direct or indirect parent with voting control over such operating company, or (b) a vulture fund or distressed debt fund.

11.3 Indemnification.

(a) General Indemnification. Borrower shall indemnify, defend and hold Bank and its Affiliates and the partners, directors, officers, employees, agents, trustees, administrators, managers, advisors and representatives of Bank and its Affiliates (each, an "**Indemnified Person**") harmless against: all losses, claims, damages, liabilities and related expenses (including Bank Expenses and the reasonable fees, charges and disbursements of any counsel for any Indemnified Person) (collectively, "**Claims**") arising out of, in connection with, or as a result of (i) the execution or delivery of this Agreement, any other Loan Document or any agreement or instrument contemplated hereby or thereby, the performance by the parties hereto of their respective obligations hereunder or thereunder or the consummation of the transactions contemplated hereby or thereby, (ii) any Credit Extension or the use or proposed use of the proceeds therefrom, (iii) any actual or alleged presence or release of hazardous materials on or from any property owned or operated by Borrower or any of its Subsidiaries, or any environmental liability related in any way to Borrower or any of its Subsidiaries, or (iv) any actual or prospective claim, litigation, investigation or proceeding relating to any of the foregoing, whether based on contract, tort or any other theory, whether brought by a third party or by Borrower, and regardless of whether any Indemnified Person is a party thereto; provided that such indemnity shall not, as to any Indemnified Person, be available to the extent that such losses, claims, damages, liabilities or related expenses are determined by a court of competent jurisdiction by final and nonappealable judgment to have resulted from the gross negligence or willful misconduct of such Indemnified Person. All amounts due under this Section 11.3 shall be payable promptly after demand therefor.

(b) Waiver of Consequential Damages, Etc. To the fullest extent permitted by Applicable Law, Borrower shall not assert, and hereby waives, any claim against any Indemnified Person, on any theory of liability, for special, indirect, consequential or punitive damages (as opposed to direct or actual damages) or any loss of profits arising out of, in connection with, or as a result of, this Agreement, any other Loan Document or any agreement or instrument contemplated hereby, the transactions contemplated hereby or thereby, any Credit Extension, or the use of the proceeds thereof. No Indemnified Person shall be liable for any damages arising from

the use by unintended recipients of any information or other materials distributed by it through telecommunications, electronic or other information transmission systems in connection with this Agreement or the other Loan Documents or the transactions contemplated hereby or thereby.

This Section 11.3 shall survive the termination of this Agreement and the repayment of all Obligations until all statutes of limitation with respect to the Claims, losses, and expenses for which indemnity is given shall have run.

11.4 Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

11.5 Severability of Provisions. Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

11.6 Amendments in Writing; Waiver; Integration. No purported amendment or modification of any Loan Document, or waiver, discharge or termination of any obligation under any Loan Document, shall be effective unless, and only to the extent, expressly set forth in a writing signed by each party hereto. Without limiting the generality of the foregoing, no oral promise or statement, nor any action, inaction, delay, failure to require performance or course of conduct shall operate as, or evidence, an amendment, supplement or waiver or have any other effect on any Loan Document. Any waiver granted shall be limited to the specific circumstance expressly described in it, and shall not apply to any subsequent or other circumstance, whether similar or dissimilar, or give rise to, or evidence, any obligation or commitment to grant any further waiver. The Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of the Loan Documents merge into the Loan Documents.

11.7 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Agreement. Delivery of an executed signature page of this Agreement by electronic mail transmission shall be effective as delivery of a manually executed counterpart hereof.

11.8 Confidentiality. Bank agrees to maintain the confidentiality of Information (as defined below), except that Information may be disclosed (a) to Bank's Subsidiaries and Affiliates and their respective employees, directors, agents, attorneys, accountants and other professional advisors (collectively, "**Representatives**" and, together with Bank, collectively, "**Bank Entities**"), provided that such Bank Entities are subject to the same confidentiality provisions herein; (b) to prospective transferees, assignees, credit providers or purchasers of Bank's interests under or in connection with this Agreement and their Representatives (provided, however, Bank shall use obtain any such prospective transferee's, assignee's, credit provider's, purchaser's or their Representatives' agreement to the terms of this provision or substantially similar terms); (c) as required by law, regulation, subpoena, or other order; (d) to Bank's regulators or as otherwise required or requested in connection with Bank's examination or audit; (e) in connection with the exercise of remedies under the Loan Documents or any action or proceeding relating to this Agreement or any other Loan Document or the enforcement of rights hereunder or thereunder; and (f) to third-party service providers of Bank so long as such service providers have executed a confidentiality agreement with Bank with terms no less restrictive than those contained herein. "**Information**" means all information received from Borrower and its agents regarding Borrower or its business, in each case other than information that is either: (i) in the public domain or in Bank's possession when disclosed to Bank, or becomes part of the public domain (other than as a result of its disclosure by Bank in violation of this Agreement) after disclosure to Bank; or (ii) disclosed to Bank by a third party, if Bank does not know that the third party is prohibited from disclosing the information.

11.9 Electronic Execution of Documents. The words "execution," "signed," "signature" and words of like import in any Loan Document shall be deemed to include electronic signatures, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed

signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any Applicable Law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

11.10 Right of Setoff. Borrower hereby grants to Bank a Lien and a right of setoff as security for all Obligations to Bank, whether now existing or hereafter arising upon and against all deposits, credits, collateral and property, now or hereafter in the possession, custody, safekeeping or control of Bank or any entity under the control of Bank (including a subsidiary of Bank) or in transit to any of them, and other obligations owing to Bank or any such entity. At any time after the occurrence and during the continuance of an Event of Default, without demand or notice, Bank may setoff the same or any part thereof and apply the same to any liability or Obligation of Borrower even though unmatured and regardless of the adequacy of any other collateral securing the Obligations. ANY AND ALL RIGHTS TO REQUIRE BANK TO EXERCISE ITS RIGHTS OR REMEDIES WITH RESPECT TO ANY OTHER COLLATERAL WHICH SECURES THE OBLIGATIONS, PRIOR TO EXERCISING ITS RIGHT OF SETOFF WITH RESPECT TO SUCH DEPOSITS, CREDITS OR OTHER PROPERTY OF BORROWER, ARE HEREBY KNOWINGLY, VOLUNTARILY AND IRREVOCABLY WAIVED.

11.11 Captions and Section References. The headings used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement. Unless indicated otherwise, section references herein are to sections of this Agreement.

11.12 Construction of Agreement. The parties hereto mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this Agreement. In cases of uncertainty this Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

11.13 Relationship. The relationship of the parties to this Agreement is determined solely by the provisions of this Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

11.14 Third Parties. Nothing in this Agreement, whether express or implied, is intended to: (a) confer any benefits, rights or remedies under or by reason of this Agreement on any Persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any Person not an express party to this Agreement; or (c) give any Person not an express party to this Agreement any right of subrogation or action against any party to this Agreement.

11.15 Anti-Terrorism Law. Bank hereby notifies Borrower that, pursuant to the requirements of Anti-Terrorism Law, Bank may be required to obtain, verify and record information that identifies Borrower, which information may include the name and address of Borrower and other information that will allow Bank to identify Borrower in accordance with Anti-Terrorism Law. Borrower hereby agrees to take any action necessary to enable Bank to comply with the requirements of Anti-Terrorism Law.

12. ACCOUNTING TERMS AND OTHER DEFINITIONS

12.1 Accounting and Other Terms.

(a) Accounting terms not defined in this Agreement shall be construed following GAAP, except for non-compliance with FAS 123R with respect to monthly financial statements. Calculations and determinations must be made following GAAP (except for (a) non-compliance with FAS 123R with respect to monthly financial statement), provided that if at any time any change in GAAP would affect the computation of any financial ratio or requirement set forth in any Loan Document, and either Borrower or Bank shall so request, Borrower and Bank shall negotiate in good faith to amend such ratio or requirement to preserve the original intent thereof in light of such change in GAAP; provided, further, that, until so amended, (i) such ratio or requirement shall continue to be computed in accordance with GAAP prior to such change therein and (ii) Borrower shall provide Bank financial statements and other documents required under this Agreement or as reasonably requested hereunder

setting forth a reconciliation between calculations of such ratio or requirement made before and after giving effect to such change in GAAP.

(b) As used in the Loan Documents: (i) the words "shall" or "will" are mandatory, the word "may" is permissive, the word "or" is not exclusive, the words "includes" and "including" are not limiting, the singular includes the plural, and numbers denoting amounts that are set off in brackets are negative; (ii) the term "continuing" in the context of an Event of Default means that the Event of Default has not been remedied (if capable of being remedied) or waived; and (iii) whenever a representation or warranty is made to Borrower's knowledge or awareness, to the "best of" Borrower's knowledge, or with a similar qualification, knowledge or awareness means the actual knowledge, after reasonable investigation, of any Responsible Officer.

12.2 Definitions. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in this Section 12.2. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein. As used in this Agreement, the following capitalized terms have the following meanings:

"**Account**" is, as to any Person, any "account" of such Person as "account" is defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to such Person.

"**Account Debtor**" is any "account debtor" as defined in the Code with such additions to such term as may hereafter be made.

"**Adjusted EBITDA**" shall mean, for Borrower and its Subsidiaries, with respect to any period, the sum of (a) Net Income, *plus* (b) to the extent deducted or added to the calculation of Net Income, (i) Interest income, Interest Expenses, (ii) depreciation expense and amortization expense, (iii) income tax expense, (iv) non-cash stock compensation, and (v) any other one-time restructuring or non-cash charges.

"**Adjusted Quick Ratio**" is the ratio of (a) Quick Assets to (b) the sum of (i) Current Liabilities minus (ii) the current portion of Deferred Revenue.

"**Administrator**" is an individual that is named:

(a) as an "Administrator" in the "SVB Online Services" form completed by Borrower with the authority to determine who will be authorized to use SVB Online Services (as defined in Bank's Online Banking Agreement as in effect from time to time) on behalf of Borrower; and

(b) as an Authorized Signer of Borrower in an approval by the Board.

"**Advance**" or "**Advances**" means a revolving credit loan (or revolving credit loans) under the Revolving Line.

"**Affiliate**" is, with respect to any Person, each other Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person's senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person's managers and members.

"**Agreement**" is defined in the preamble hereof.

"**Anti-Terrorism Law**" means any law relating to terrorism or money-laundering, including Executive Order No. 13224 and the USA Patriot Act.

"**Applicable Law**" means all applicable provisions of constitutions, laws, statutes, ordinances, rules, treaties, regulations, permits, licenses, approvals, interpretations and orders of courts or Governmental Authorities and all orders and decrees of all courts and arbitrators.

"**Authorized Signer**" means any individual listed in Borrower's Borrowing Resolution who is authorized to execute the Loan Documents, including making (and executing if applicable) any Credit Extension request, on behalf of Borrower.

"**Availability Amount**" is the lesser of (a) the Revolving Line or (b) the Borrowing Base, minus the sum of all outstanding principal amounts of any Advances.

"**Bank**" is defined in the preamble hereof.

"**Bank Entities**" is defined in Section 11.8.

"**Bank Expenses**" are all reasonable audit fees, costs and reasonable expenses (including reasonable, out-of-pocket and documented attorneys' fees and expenses) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred with respect to Borrower or any Guarantor.

"**Bank Services**" are any products, credit services, and/or financial accommodations previously, now, or hereafter provided to Borrower or any of its Subsidiaries by Bank or any Bank Affiliate, including, without limitation, any letters of credit, cash management services (including, without limitation, merchant services, direct deposit of payroll, business credit cards, and check cashing services), interest rate swap arrangements, and foreign exchange services as any such products or services may be identified in Bank's various agreements related thereto (each, a "**Bank Services Agreement**").

"**Bank Services Agreement**" is defined in the definition of Bank Services.

"**Board**" is Borrower's board of directors or equivalent governing body.

"**Borrower**" is set forth on Schedule I hereto.

"**Borrower's Books**" are all Borrower's books and records including ledgers, federal and state tax returns, records regarding Borrower's assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

"**Borrowing Base**" is eighty percent (80%) of Eligible Accounts, as determined by Bank from Borrower's most recent Borrowing Base Statement; provided, however, that Bank has the right to decrease the foregoing percentages in its commercially reasonable discretion to mitigate the impact of events, conditions, contingencies, or risks which would reasonably be expected to adversely affect the Collateral or its value, following thirty (30) days prior written notice to Borrower.

"**Borrowing Base Statement**" is that certain statement of the value of certain Collateral in the form specified by Bank to Borrower from time to time.

"**Borrowing Resolutions**" are, with respect to any Person, those resolutions adopted by such Person's board of directors (and, if required under the terms of such Person's Operating Documents, stockholders) and delivered by such Person to Bank approving the Loan Documents to which such Person is a party and the transactions contemplated thereby, together with a certificate executed by its secretary on behalf of such Person certifying (a) such Person has the authority to execute, deliver, and perform its obligations under each of the Loan Documents to which it is a party, (b) that set forth as a part of or attached as an exhibit to such certificate is a true, correct, and complete copy of the applicable resolutions then in full force and effect authorizing and ratifying the

execution, delivery, and performance by such Person of the Loan Documents to which it is a party, (c) the name(s) of the Person(s) authorized to execute the Loan Documents, including making (and executing if applicable) any Credit Extension request, on behalf of such Person, together with a sample of the true signature(s) of such Person(s), and (d) that Bank may conclusively rely on such certificate unless and until such Person shall have delivered to Bank a further certificate canceling or amending such prior certificate.

"**Business Day**" is a day other than a Saturday, Sunday or other day on which commercial banks in the State of California are authorized or required by law to close, except that if any determination of a "Business Day" shall relate to an FX Contract, the term "Business Day" shall be a FX Business Day.

"**Cash Collateral Account**" is defined in Section 5.4(c).

"**Cash Equivalents**" are (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; (c) Bank's certificates of deposit issued maturing no more than one (1) year after issue; ~~and~~ (d) long-term securities having a rating minimum of A-/A3 from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; and (e) money market funds at least ninety-five percent (95.0%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (~~e~~d) of this definition.

"**Change in Control**" means (a) at any time, any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act), shall become, or obtain rights (whether by means of warrants, options or otherwise) to become, the "beneficial owner" (as defined in Rules 13(d)-3 and 13(d)-5 under the Exchange Act), directly or indirectly, of forty-nine percent (49.0%) or more of the ordinary voting power for the election of directors, partners, managers and members, as applicable, of Borrower (determined on a fully diluted basis) other than by the sale of Borrower's equity securities in a public offering or to venture capital or private equity investors so long as Borrower identifies to Bank the venture capital or private equity investors at least seven (7) Business Days prior to the closing of the transaction and provides to Bank a description of the material terms of the transaction; (b) during any period of twelve (12) consecutive months, a majority of the members of the Board of Borrower cease to be composed of individuals (i) who were members of that board or equivalent governing body on the first (1st) day of such period, (ii) whose election or nomination to that board or equivalent governing body was approved by individuals referred to in clause (i) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body or (iii) whose election or nomination to that board or other equivalent governing body was approved by individuals referred to in clauses (i) and (ii) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body; or (c) at any time, Borrower shall cease to own and control, of record and beneficially, directly or indirectly, one hundred percent (100.0%) of each class of outstanding stock, partnership, membership, or other ownership interest or other equity securities of each Subsidiary of Borrower free and clear of all Liens (except Permitted Liens and except dissolutions or transfers permitted pursuant to Sections 6.2 and 6.3 of this Agreement).

"**Change in Law**" means the occurrence, after the Effective Date, of: (a) the adoption or taking effect of any law, rule, regulation or treaty; (b) any change in Applicable Law or in the administration, interpretation, implementation or application thereof by any Governmental Authority; or (c) the making or issuance of any request, rule, guideline or directive (whether or not having the force of law) by any Governmental Authority; provided that notwithstanding anything herein to the contrary, (i) the Dodd-Frank Wall Street Reform and Consumer Protection Act and all requests, rules, guidelines or directives thereunder or issued in connection therewith and (ii) all requests, rules, guidelines or directives promulgated by Bank for International Settlements, the Basel Committee on Banking Supervision (or any successor or similar authority) or the United States or foreign regulatory authorities, in each case pursuant to Basel III, shall in each case be deemed to be a "Change in Law", regardless of the date enacted, adopted or issued.

"**Claims**" is defined in Section 11.3.

"**Code**" is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the State of California; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Bank's Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the State of California, the term "Code" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

"**Collateral**" consists of all of Borrower's right, title and interest in and to the following personal property:

(a) (i) all goods, Accounts (including health-care receivables), Equipment, Inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, General Intangibles (except as provided below), commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, certificates of deposit, fixtures, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, securities accounts, securities entitlements and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and (ii) all Borrower's Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

(b) Notwithstanding the foregoing, the Collateral does not include any of the following (now existing or hereafter arising, owned or created):

(i) any Intellectual Property; provided, however, the Collateral shall include all Accounts and all proceeds of Intellectual Property. If a judicial authority (including a U.S. Bankruptcy Court) would hold that a security interest in the underlying Intellectual Property is necessary to have a security interest in such Accounts and such property that are proceeds of Intellectual Property, then the Collateral shall automatically, and effective as of the Effective Date, include the Intellectual Property to the extent necessary to permit perfection of Bank's security interest in such Accounts and such other property of Borrower that are proceeds of the Intellectual Property; and

(ii) any interest of Borrower as a lessee or sublessee under a real property lease or an Equipment lease if Borrower is prohibited by the terms of such lease from granting a security interest in such lease or under which such an assignment or Lien would cause a default to occur under such lease (but only to the extent that such prohibition is enforceable under all applicable laws including, without limitation, the Code); provided, however, that upon termination of such prohibition, such interest shall immediately become Collateral without any action by Borrower or Bank.

(c) Pursuant to the terms of a certain negative pledge arrangement with Bank, Borrower has agreed not to encumber any of its Intellectual Property in contravention of the terms of such pledge agreement without Bank's prior written consent.

"**Collateral Account**" is any Deposit Account, Securities Account, or Commodity Account.

"**Commodity Account**" is any "commodity account" as defined in the Code with such additions to such term as may hereafter be made.

"**Compliance Statement**" is that certain statement in the form attached hereto as Exhibit A.

"**Connection Income Taxes**" means Other Connection Taxes that are imposed on or measured by net income (however denominated) or that are franchise Taxes or branch profits Taxes.

"**Contingent Obligation**" is, for any Person, any direct or indirect liability of that Person for (a) any direct or indirect guaranty by such Person of any indebtedness, lease, dividend, letter of credit, credit card or other obligation of another, (b) any other obligation endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (c) any obligations for undrawn letters of credit for the account of that Person; and (d) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but "Contingent Obligation" does not include endorsements in the ordinary course of business or any Permitted Call Spread Agreement(s). The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

"**Control Agreement**" is any control agreement entered into among the depository institution at which Borrower maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower maintains a Securities Account or a Commodity Account, Borrower, and Bank pursuant to which Bank obtains control (within the meaning of the Code) over such Deposit Account, Securities Account, or Commodity Account.

"**Copyrights**" are any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret.

"**Credit Extension**" is any Advance, Overadvance, Letter of Credit, FX Contract, amount utilized for cash management services, Term Loan Advance, or any other extension of credit under the Loan Documents by Bank for Borrower's benefit.

"**Currency**" is coined money and such other banknotes or other paper money as are authorized by law and circulate as a medium of exchange.

"**Current Liabilities**" are (a) all obligations and liabilities of Borrower to Bank, plus (b) without duplication of (a) the aggregate amount of Borrower's Total Liabilities that mature within one (1) year (including, for the avoidance of doubt, all Obligations of Borrower to Bank under the Term Loan Advances that mature within one year and Revolving Advances that mature within one year).

"**Default**" means any event which with notice or passage of time or both, would constitute an Event of Default.

"**Default Rate**" is defined in Section 1.2(c).

"**Deferred Revenue**" is all amounts received or invoiced in advance of performance under contracts and not yet recognized as revenue.

"**Deposit Account**" is any "**deposit account**" as defined in the Code with such additions to such term as may hereafter be made.

"**Designated Deposit Account**" is the deposit account with account number xxx-xxxx-9905, established by Borrower with Bank for purposes of receiving Credit Extensions.

"**Division**" means, in reference to any Person which is an entity, the division of such Person into two (2) or more separate Persons, with the dividing Person either continuing or terminating its existence as part of such division, including, without limitation, as contemplated under Section 18-217 of the Delaware Limited Liability Company Act for limited liability companies formed under Delaware law, Section 17-220 of the Delaware Revised Uniform Limited Partnership Act for limited partnerships formed under Delaware law, or any analogous action taken pursuant to any other Applicable Law with respect to any corporation, limited liability company, partnership or other entity.

"**Dollar Equivalent**" is, at any time, (a) with respect to any amount denominated in Dollars, such amount, and (b) with respect to any amount denominated in a Foreign Currency, the equivalent amount therefor in Dollars as determined by Bank at such time on the basis of the then-prevailing rate of exchange in San Francisco, California, for sales of the Foreign Currency for transfer to the country issuing such Foreign Currency.

"**Dollars**," "**dollars**" or use of the sign "$" means only lawful money of the United States and not any other currency, regardless of whether that currency uses the "$" sign to denote its currency or may be readily converted into lawful money of the United States.

~~"**EBITDA**" shall mean (a) Net Income, plus (b) to the extent deducted in the calculation of Net Income (i) Interest Expense, (ii) depreciation expense and amortization expense, (iii) income tax expense, and (iv) stock based compensation.~~

"**Effective Date**" is set forth on Schedule I hereto.

"**Eligible Accounts**" means Accounts owing to Borrower which arise in the ordinary course of Borrower's business that meet all Borrower's representations and warranties in Section 4.3, that have been, at the option of Bank, confirmed in accordance with Section 5.4(f) of this Agreement, and are due and owing from Account Debtors deemed creditworthy by Bank in its commercially reasonable discretion. Bank reserves the right, at any time after the First Amendment Effective Date, in its commercially reasonable discretion in each instance, to adjust any of the criteria set forth below and to establish new criteria, following thirty (30) days prior written notice to Borrower. Unless Bank otherwise agrees in writing, Eligible Accounts shall not include:

(a) Accounts (i) for which the Account Debtor is Borrower's Affiliate, officer, employee, investor, or agent, or (ii) that are intercompany Accounts;

(b) Accounts that the Account Debtor has not paid within ninety (90) days of invoice date regardless of invoice payment period terms;

(c) Accounts with credit balances over ninety (90) days from invoice date, to the extent of such credit balances;

(d) Accounts owing from an Account Debtor that exceed Two Hundred Fifty Thousand Dollars ($250,000) if fifty percent (50.0%) or more of the Accounts owing from such Account Debtor have not been paid within ninety (90) days of invoice date;

(e) Accounts owing from an Account Debtor (i) which does not have its principal place of business in the United States or (ii) whose billing address (as set forth in the applicable invoice for such Account) is not in the United States, unless in the case of both (i) and (ii) such Accounts are otherwise approved by Bank in writing, provided, however, that Bank hereby approves the Accounts relating to Device Technologies Belrose which is located in Australia;

(f) Accounts billed from and/or payable to Borrower outside of the United States (sometimes called foreign invoiced accounts);

(g) Accounts in which Bank does not have a first priority, perfected security interest under all Applicable Law, other than Device Technologies Belrose which is located in Australia (solely relative to any failure to obtain a first priority, perfected security interest in any foreign jurisdiction, including Australia);

(h) Accounts billed and/or payable in a Currency other than Dollars;

(i) Accounts owing from an Account Debtor to the extent that Borrower is indebted or obligated in any manner to the Account Debtor (as creditor, lessor, supplier or otherwise - sometimes called "contra" accounts, accounts payable, customer deposits or credit accounts), but only to the extent of such Indebtedness or obligations;

(j) Accounts with or in respect of accruals for marketing allowances, incentive rebates, price protection, cooperative advertising and other similar marketing credits, unless otherwise approved by Bank in writing, but only to the extent of such credits;

(k) Accounts owing from an Account Debtor which is a United States government entity or any department, agency, or instrumentality thereof unless Borrower has assigned its payment rights to Bank and the assignment has been acknowledged under the Federal Assignment of Claims Act of 1940, as amended;

(l) Accounts with customer deposits and/or with respect to which Borrower has received an upfront payment, to the extent of such customer deposit and/or upfront payment;

(m) Accounts for demonstration or promotional equipment, or in which goods are consigned, or sold on a "sale guaranteed", "sale or return", "sale on approval", or other terms if Account Debtor's payment may be conditional;

(n) Accounts owing from an Account Debtor where goods or services have not yet been rendered to the Account Debtor (sometimes called memo billings or pre-billings);

(o) Accounts subject to contractual arrangements between Borrower and an Account Debtor where payments shall be scheduled or due according to completion or fulfillment requirements (sometimes called contracts accounts receivable, progress billings, milestone billings, or fulfillment contracts);

(p) Accounts owing from an Account Debtor the amount of which may be subject to withholding based on the Account Debtor's satisfaction of Borrower's complete performance (but only to the extent of the amount withheld; sometimes called retainage billings);

(q) Accounts subject to trust provisions, subrogation rights of a bonding company, or a statutory trust;

(r) Accounts owing from an Account Debtor that has been invoiced for goods that have not been shipped to the Account Debtor unless Bank, Borrower, and the Account Debtor have entered into an agreement acceptable to Bank wherein the Account Debtor acknowledges that (i) it has title to and has ownership of the goods wherever located, (ii) a bona fide sale of the goods has occurred, and (iii) it owes payment for such goods in accordance with invoices from Borrower (sometimes called "bill and hold" accounts);

(s) Accounts for which the Account Debtor has not been invoiced;

(t) Accounts that represent non-trade receivables or that are derived by means other than in the ordinary course of Borrower's business;

(u) Accounts for which Borrower has permitted Account Debtor's payment to extend beyond ninety (90) days (including Accounts with a due date that is more than ninety (90) days from invoice date);

(v) Accounts arising from chargebacks, debit memos or other payment deductions taken by an Account Debtor;

(w) Accounts arising from product returns and/or exchanges (sometimes called "warranty" or "RMA" accounts);

(x) Accounts in which the Account Debtor disputes liability or makes any claim (but only up to the disputed or claimed amount), or if the Account Debtor is subject to an Insolvency Proceeding (whether voluntary or involuntary), or becomes insolvent, or goes out of business;

(y) Accounts owing from an Account Debtor, whose total obligations to Borrower exceed twenty-five percent (25.0%) of all Accounts, only for the amounts that exceed that percentage, unless Bank approves in writing; and

(z) Accounts for which Bank in its sole discretion determines collection to be doubtful, including, without limitation, accounts represented by "refreshed" or "recycled" invoices.

"**Environmental Laws**" means any Applicable Law (including any permits, concessions, grants, franchises, licenses, agreements or governmental restrictions) relating to pollution or the protection of health, safety or the environment or the release of any materials into the environment (including those related to hazardous materials, air emissions, discharges to waste or public systems and health and safety matters).

"**Equipment**" is all "equipment" as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"**ERISA**" is the Employee Retirement Income Security Act of 1974, as amended, and its regulations.

"**Event of Default**" is defined in Section 7.

"**Exchange Act**" is the Securities Exchange Act of 1934, as amended.

"**Excluded Taxes**" means any of the following Taxes imposed on or with respect to Bank or required to be withheld or deducted from a payment to Bank, (a) Taxes imposed on or measured by net income (however denominated), franchise Taxes, and branch profits Taxes, in each case, (i) imposed as a result of Bank being organized under the laws of, or having its principal office or its applicable lending office located in, the jurisdiction imposing such Tax (or any political subdivision thereof) or (ii) that are Other Connection Taxes, (b) U.S. federal withholding Taxes imposed on amounts payable to or for the account of Bank with respect to an applicable interest in a Credit Extension pursuant to a law in effect on the date on which (i) Bank acquires such interest in the Credit Extensions or (ii) Bank changes its lending office, except in each case to the extent that, pursuant to Section 1.6, amounts with respect to such Taxes were payable either to Bank's assignor immediately before Bank became a party hereto or to Bank immediately before it changed its lending office, (c) Taxes attributable to Bank's failure to comply with Section 1.6(e) and/or any reporting and delivery requirements, and (d) any withholding Taxes imposed under FATCA.

"**FATCA**" means Sections 1471 through 1474 of the Internal Revenue Code, as of the date of this Agreement (or any amended or successor version that is substantively comparable and not materially more onerous to comply with), any current or future regulations or official interpretations thereof, any agreements entered into pursuant to Section 1471(b)(1) of the Internal Revenue Code and any fiscal or regulatory legislation, rules or

practices adopted pursuant to any intergovernmental agreement, treaty or convention among Governmental Authorities and implementing such Sections of the Internal Revenue Code.

"**Final Payment**" is a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) due on the earliest to occur of (a) the Term Loan Maturity Date, (b) the repayment of the Term Loan Advance in full, (c) as required pursuant to Section 1.1(c) or 1.1(d), or (d) the termination of this Agreement, in an amount equal to the original aggregate principle amount of the Term Loan Advance extended by Bank to Borrower multiplied by two percent (2.0%).

"**Financial Covenant Measuring Period**" is any period of time (a) commencing on the later to occur of (i) the date on which the aggregate value of the Borrower's unrestricted and unencumbered (except for Liens in favor of Bank) cash and Cash Equivalents held at SVB and SVB's Affiliates falls below [***] Dollars, and (ii) January 1, 2024 and (b) terminating on the date on which Borrower has achieved two (2) consecutive quarters of Adjusted EBITDA greater than [***] Dollars. After the termination of a Financial Covenant Measuring Period, if both (X) Borrower's Adjusted EBITDA is equal to or less than [***] Dollars any such fiscal quarter and (Y) the aggregate value of the Borrower's unrestricted and unencumbered (except for Liens in favor of Bank) cash and Cash Equivalents held at SVB and SVB's Affiliates is less than [***] Dollars, then a new Financial Covenant Measuring Period shall start and shall not terminate until Borrower again achieves Adjusted EBITDA Balance greater than [***] Dollars for two (2) new consecutive quarters.

"**Financial Statement Repository**" is L43f1c@svb.com or such other means of collecting information approved and designated by Bank after providing notice thereof to Borrower from time to time.

"**First Amendment Effective Date**" means January 6, 2023.

"**Foreign Currency**" is the lawful money of a country other than the United States.

"**Foreign Subsidiary**" is a Subsidiary that is not an entity organized under the laws of the United States or any territory thereof or the District of Columbia.

"**Funding Date**" is any date on which a Credit Extension is made to or for the account of Borrower which shall be a Business Day.

"**FX Business Day**" is any day when (a) Bank's Foreign Exchange Department is conducting its normal business and (b) the Foreign Currency being purchased or sold by Borrower is available to Bank from the entity from which Bank shall buy or sell such Foreign Currency.

"**FX Contract**" is any foreign exchange contract by and between Borrower and Bank under which Borrower commits to purchase from or sell to Bank a specific amount of Foreign Currency at a set price or on a specified date.

"**GAAP**" is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the date of determination (except for with respect to unaudited financial statements for the absence of footnotes and subject to year-end audit adjustments).

"**General Intangibles**" is all "general intangibles" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all Intellectual Property, claims, income and other tax refunds, security and other deposits, payment intangibles, contract rights, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract,

tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"**Good Faith Deposit**" is defined in Section 1.3.

"**Governmental Approval**" is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

"**Governmental Authority**" is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

"**Guarantor**" is any Person providing a Guaranty in favor of Bank with respect to the Obligations.

"**Guaranty**" is any guarantee of all or any part of the Obligations, as the same may from time to time be amended, restated, modified or otherwise supplemented.

"**Indebtedness**" is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, (d) Contingent Obligations and (e) other short- and long-term obligations under debt agreements, lines of credit and extensions of credit, provided, however, that in no event shall obligations under any Permitted Call Spread Agreement constitute Indebtedness.

"**Indemnified Person**" is defined in Section 11.3.

"**Indemnified Taxes**" means (a) Taxes, other than Excluded Taxes, imposed on or with respect to any payment made by or on account of any obligation of Borrower under any Loan Document and (b) to the extent not otherwise described in clause (a), Other Taxes.

"**Information**" is defined in Section 11.8.

"**Initial Audit**" is Bank's inspection of Borrower's Accounts, the Collateral, and Borrower's Books, with results satisfactory to Bank in its sole discretion.

"**Insolvency Proceeding**" is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, receivership or other relief.

"**Intellectual Property**" means, with respect to any Person, all of such Person's right, title, and interest in and to the following, whether now owned or hereafter acquired or created:

(a) its Copyrights, Trademarks and Patents;

(b) any and all trade secrets and trade secret rights, including, without limitation, any rights to unpatented inventions, know-how and operating manuals;

(c) licenses any and all source code;

(d) any and all design rights which may be available to such Person;

(e) any and all claims for damages by way of past, present and future infringement of any of the foregoing, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the Intellectual Property rights identified above; and

(f) all amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents.

"**Interest Expense**" means for any fiscal period, interest expense (whether cash or non-cash) determined in accordance with GAAP for the relevant period ending on such date, including, in any event, interest expense with respect to any Credit Extension and other Indebtedness of Borrower and its Subsidiaries, including, without limitation or duplication, all commissions, discounts, or related amortization and other fees and charges with respect to letters of credit and bankers' acceptance financing and the net costs associated with interest rate swap, cap, and similar arrangements, and the interest portion of any deferred payment obligation (including leases of all types).

"**Internal Revenue Code**" means the U.S. Internal Revenue Code of 1986, and the rules and regulations promulgated thereunder, each as amended or modified from time to time.

"**Inventory**" is all "**inventory**" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower's custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

"**Investment**" is any beneficial ownership interest in any Person (including stock, partnership, membership, or other ownership interest or other equity securities), and any loan, advance or capital contribution to any Person.

"**Key Person**" is each of Borrower's (i) Chief Executive Officer, and (ii) Chief Financial Officer, as of the Effective Date.

"**Letter of Credit**" is a standby or commercial letter of credit issued by Bank upon request of Borrower based upon an application, guarantee, indemnity, or similar agreement.

"**Lien**" is a claim, mortgage, deed of trust, levy, attachment charge, pledge, hypothecation, security interest or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

"**Loan Documents**" are, collectively, this Agreement and any schedules, exhibits, certificates, notices, and any other documents related to this Agreement, the Perfection Certificate, the Control Agreement, any Bank Services Agreement, any subordination agreement, any note, or notes or guaranties executed by Borrower or any Guarantor, landlord waivers and consents, bailee waivers and consents, and any other present or future agreement by Borrower and/or any Guarantor with or for the benefit of Bank in connection with this Agreement or Bank Services, all as amended, restated, or otherwise modified in accordance with the terms thereof.

"**Material Adverse Change**" is (a) a material impairment in the perfection or priority of Bank's Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations, or condition (financial or otherwise) of Borrower; or (c) a material impairment of the prospect of repayment of any portion of the Obligations when such Obligations are due.

"**Net Income**" means, as calculated on a consolidated basis for Borrower and its Subsidiaries for any period as at any date of determination, the net profit (or loss), after provision for taxes, of Borrower and its Subsidiaries for such period taken as a single accounting period.

"**Net Revenue**" means, for any period as of any date of determination, Borrower's net revenue calculated in accordance with GAAP.

"**Obligations**" are Borrower's obligations to pay when due any debts, principal, interest, fees, Bank Expenses, the Termination Fee (if applicable), the Revolving Line Commitment Fee, the Prepayment Fee (if applicable), the Final Payment, and other amounts Borrower owes Bank now or later, whether under this Agreement, or the other Loan Documents, or otherwise, including, without limitation, all obligations relating to Bank Services and interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and to perform Borrower's duties under the Loan Documents (but in all cases excluding any equity interests of Bank and/or its Affiliates in Borrower).

"**OFAC**" is the Office of Foreign Assets Control of the United States Department of the Treasury and any successor thereto.

"**Operating Documents**" are, for any Person, such Person's formation documents, as certified by the Secretary of State (or equivalent agency) of such Person's jurisdiction of organization on a date that is no earlier than thirty (30) days prior to the First Amendment Effective Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability company, its limited liability company agreement (or similar agreement), and (c) if such Person is a partnership or limited partnership, its partnership agreement or limited partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

"**Other Connection Taxes**" means, with respect to Bank, Taxes imposed as a result of a present or former connection between Bank and the jurisdiction imposing such Tax (other than connections arising from Bank having executed, delivered, become a party to, performed its obligations under, received payments under, received or perfected a security interest under, engaged in any other transaction pursuant to or enforced any Loan Document, or sold or assigned an interest in any Credit Extension or Loan Document).

"**Other Taxes**" means all present or future stamp, court, documentary, intangible, recording, filing or similar Taxes that arise from any payment made under, from the execution, delivery, performance, enforcement or registration of, from the receipt or perfection of a security interest under, or otherwise with respect to, any Loan Document, except any such Taxes that are Other Connection Taxes imposed with respect to an assignment.

"**Overadvance**" is defined in Section 1.1.B.

"**Patents**" means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

"**Payment/Advance Form**" is that certain form in the form attached hereto as Exhibit B.

"**Payment Date**" is set forth on Schedule I hereto.

"**Perfection Certificate**" is the updated Perfection Certificate delivered by Borrower on or around the First Amendment Effective Date in connection with this Agreement.

~~"**Performance Milestone**" means Borrower's delivery to Bank of evidence reasonably satisfactory to Bank in its commercially reasonable discretion, confirming that Borrower has achieved revenue (determined in accordance with GAAP) of at least Ninety Million Dollars ($90,000,000) for the trailing twelve (12) month period ending on December 31, 2022.~~

"Permitted Acquisition" or "**Permitted Acquisitions**" means an acquisition by Borrower or any Subsidiary of any Intellectual Property or all or substantially all of the assets of, all of the ownership interests in, or a business line, product line (including rights in respect of any medical device) or unit or division of another Person

(including any foreign corporations) for cash consideration (including any purchase price adjustments, indemnity payments and earn-out obligations in connection therewith) up to Ten Million Dollars ($10,000,000) in any fiscal year (or such greater amount as may be agreed with the prior written consent of Bank); *provided* that, with respect to each such acquisition, each of the following conditions shall have been satisfied (or waived by Bank, acting in its ~~good faith business~~commercially reasonable discretion):

(a) no Event of Default shall have occurred and be continuing or would result from the consummation of the proposed acquisition and Bank has received evidence that Borrower is in compliance with all terms and conditions of this Agreement on a pro forma basis after giving effect to such acquisition,

(b) such acquired Person or assets shall be in a similar line of business as is conducted by Borrower as of the Effective Date (or a line of business reasonably related thereto),

(c) such acquisition shall not cause the focus or locations of Borrower's and its Subsidiaries' operations (when taken as a whole) to be located outside of the United States,

(d) such acquisition shall not constitute a hostile acquisition,

(e) any Person acquired as a result of such acquisition shall become a secured Guarantor (or co-borrower) subject to the terms herein, within fifteen (15) Business Days of the consummation of such acquisition,

(f) in connection with such acquisition, neither Borrower nor any of its subsidiaries (including for this purpose, the target of the acquisition) shall acquire or be subject to any Indebtedness or Liens that are not otherwise permitted hereunder;

(g) Borrower shall provide Bank with written notice of the proposed acquisition at least five (5) Business Days prior to the anticipated signing, commitment, or closing date of the proposed acquisition, whichever occurs first;

(h) Borrower shall provide to the Bank not later than five (5) Business Days after the execution thereof, a copy of the executed purchase agreement or similar agreement with respect to any such acquisition;

(i) such acquisition has been approved by the board of directors (or other equivalent legally governing body) of the Person to be acquired,

(j) the entity or assets to be acquired in such acquisition shall not be subject to any Lien other (x) the first priority Liens granted in favor of Bank and (y) Permitted Liens;

(k) all transactions related to such acquisition shall be consummated in all material respects in accordance with applicable law; and

(l) Borrower shall provide to the Bank as soon as available but in any event not later than five (5) Business Days after the execution thereof, a copy of the executed purchase agreement or similar agreement with respect to any such acquisition.

Borrower shall provide to the Bank as soon as available but in any event not later than five (5) Business Days after the execution thereof a certificate of a Responsible Officer of Borrower, in form and substance reasonably satisfactory to Bank, certifying that all of the requirements set forth in this definition have been satisfied or will be satisfied on or prior to the consummation of such acquisition. Notwithstanding the foregoing and for the avoidance of doubt, in no event shall Borrower or any of its Subsidiaries assume any liabilities with respect to any acquisition, including without limitation, any Permitted Indebtedness, in excess of Fifteen Million Dollars ($15,000,000) in aggregate outstanding at any time for such Permitted Acquisitions.

"**Permitted Call Spread Agreements**" means (a) any call option transaction (including, but not limited to, any bond hedge transaction or capped call transaction) pursuant to which the Borrower acquires an option requiring the counterparty thereto to deliver to the Borrower shares of common stock of the Borrower (or other securities or property following a merger event or other change of the common stock of the Borrower), the cash value thereof or a combination thereof from time to time upon exercise of such option entered into by the Borrower in connection with the issuance of Permitted Convertible Debt (such transaction, a "**Bond Hedge Transaction**") and (b) any issued warrants to acquire common stock of the Borrower (or other securities or property following a merger event or other change of the common stock of the Borrower) (whether such warrant is settled in shares, cash or a combination thereof) issued by the Borrower in connection with the issuance of Permitted Convertible Debt and sold by Borrower substantially concurrently with any purchase by Borrower of a Bond Hedge Transaction and settled in (such transaction, a "**Warrant Transaction**"); *provided* that (i) the terms, conditions and covenants of each such call option transaction are customary for agreements of such type, as determined by the Board (or a committee thereof) in good faith, (ii) the purchase price for such Bond Hedge Transaction, less the proceeds received by the Borrower from the sale of any related Warrant Transaction, does not exceed the net proceeds received by the Borrower from the issuance of the related Permitted Convertible Indebtedness at the time of such purchase, and (iii) in the case of clause (b) above, such warrants would be classified as an equity instrument in accordance with GAAP.

"**Permitted Convertible Debt**" means any unsecured notes issued by the Borrower that are convertible into a fixed number (subject to customary anti-dilution adjustments, "make-whole" increases and other customary changes thereto) of shares of common stock of the Borrower (or other securities or property following a merger event or other change of the common stock of the Borrower), cash or any combination thereof (with the amount of such cash or such combination determined by reference to the market price of such common stock or such other securities); *provided* that such Indebtedness must satisfy each of the following conditions: (i) both immediately prior to and after giving effect (including pro forma effect) to the issuance thereof, no Default or Event of Default shall exist or result therefrom, (ii) such Indebtedness matures after, and does not require any scheduled amortization or other scheduled or otherwise required payments of principal prior to, or have a scheduled maturity date earlier than, the date that is ninety one (91) calendar days after the Term Loan Maturity Date and prior to that date, does not provide for or require any payments of principal or any other payments with the exception of semi-annual interest payments, obligations to settle conversions, redemption rights (which, for the avoidance of doubt, will be subject to Section 6.7) and customary obligations to offer to repurchase the notes upon the occurrence of a "fundamental change", (iii) any cross-default or cross-acceleration event of default (each howsoever defined) provision contained therein that relates to indebtedness or other payment obligations of Borrower (or any of its Subsidiaries) (such indebtedness or other payment obligations, a "**Cross-Default Reference Obligation**") contains a cure period of at least thirty (30) calendar days (after written notice to the issuer of such Indebtedness by the trustee or to such issuer and such trustee by holders of at least 25% in aggregate principal amount of such Indebtedness then outstanding) before a default, event of default, acceleration or other event or condition under such Cross-Default Reference Obligation results in an event of default under such cross-default or cross-acceleration provision, (iv) the terms, conditions and covenants (other than pricing terms determined through a customary marketing process) of such Indebtedness must be customary for convertible Indebtedness of such type at the time of issuance (as determined by the Board, or a committee thereof, in good faith) and, (v) such Indebtedness is not guaranteed by any Subsidiary of the Borrower unless the Obligations are guaranteed by such Subsidiary on a secured basis. For the avoidance of doubt, and without limitation of the foregoing, Permitted Convertible Debt shall at all times be valued at the full stated principle amount thereof and shall not include any reduction or appreciation in value of the shares deliverable upon conversion thereof.

"**Permitted Foreign Subsidiary Accounts**" is defined in Section 5.9(a).

"**Permitted Hedging Agreement**" means any currency agreement, all rate swap transactions or other contract or arrangement designed solely to protect a Person against fluctuations in currency exchange rates and interest rate risk, and any confirmation executed in connection with any such agreement, contract, or arrangement, in each case, entered into by Borrower or any of its Subsidiaries solely to hedge or mitigate the risks of foreign exchange rate fluctuations and interest rate risk and not for any speculative or other purposes; *provided* that such

agreement, contract or arrangement shall comply in all respects with the hedging policies or guidelines as are approved by the Board or as are approved by Bank (such approval not to be unreasonably withheld, delayed or conditioned); *provided further*, that all accrued and reasonably expected liabilities of Borrower or its Subsidiaries arising under Permitted Hedging Agreements shall not exceed One Million Dollars ($1,000,000) in the aggregate at any time. For the avoidance of doubt, no Permitted Call Spread Agreement shall constitute a Permitted Hedging Agreement.

"**Permitted Indebtedness**" is:

(a) Borrower's Indebtedness to Bank under this Agreement, the other Loan Documents and under any other agreement with Bank;

(b) Indebtedness existing on the Effective Date which is shown on the Perfection Certificate;

(c) Subordinated Debt;

(d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;

(e) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;

(f) Indebtedness secured by Liens permitted under clauses (a) and (c) of the definition of "Permitted Liens" hereunder;

(g) other unsecured Indebtedness not otherwise permitted by Section 6.4 not exceeding Two Hundred Fifty Thousand Dollars ($250,000.00) in the aggregate outstanding at any time;

(h) Indebtedness with respect to credit cards maintained with American Express, not to exceed Five Hundred Thousand Dollars ($500,000) outstanding at any time;

(i) Permitted Hedging Agreements;

(j) intercompany Indebtedness by and among Borrower and its Subsidiaries (subject to "Permitted Investments" part (g)(i);

(k) Indebtedness in respect of letters of credit, bank guarantees and similar instruments issued for the account of Borrower and/or its Subsidiaries in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) outstanding at any time;

(l) advances or deposits received in the ordinary course of business from customers or vendors;

(m) Indebtedness in respect of netting services, overdraft protections, payment processing, automatic clearinghouse arrangements, arrangements in respect of pooled deposit or sweep accounts, check endorsement guarantees, and otherwise in connection with deposit accounts or cash management services and Indebtedness arising in connection with automated clearing house transfer of funds or the use of other payment processing services;

(n) Indebtedness arising in connection with the financing of insurance premiums in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) outstanding at any time;

(o) Indebtedness in respect of performance bonds, bid bonds, appeal bonds, surety bonds, completion guarantees and similar obligations arising in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) in the aggregate outstanding at any time;

(p) Unsecured Indebtedness in connection with Permitted Acquisitions, not to exceed Fifteen Million Dollars ($15,000,000) in aggregate outstanding at any time;

(q) Permitted Convertible Debt in aggregate principal amount not to exceed Two Hundred Fifty Million Dollars ($250,000,000) in principal amount at any time outstanding;

(r) Indebtedness of Borrower's Subsidiaries in connection with the sale of Inventory by Borrower to its Subsidiaries in the ordinary course of business, which may from time to time be forgiven by Borrower;

(s) purchase price adjustments, indemnity payments and earn-out obligations in connection with any Permitted Acquisition (to the extent not in excess of the consideration limitations set forth in the definition thereof); and

(t) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (a) through (s) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon Borrower or its Subsidiary, as the case may be.

"**Permitted Investments**" are:

(a) Investments (including, without limitation, Subsidiaries) existing on the Effective Date which are shown on the Perfection Certificate;

(b) (i) Investments consisting of cash and Cash Equivalents, and (ii) any other Investments permitted by Borrower's investment policy, as amended from time to time, provided that such investment policy (and any such amendment thereto) has been approved in writing by Bank, further provided that Bank hereby confirms approval of such investment policy delivered to Bank around the Effective Date;

(c) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of Borrower's business;

(d) Investments consisting of deposit and securities accounts (but only to the extent that Borrower or its Subsidiaries is permitted to maintain such accounts pursuant to Section 5.9 of this Agreement) in which Bank has a first priority perfected security interest (only if and to the extent required pursuant to Section 5.9 of this Agreement);

(e) Investments accepted in connection with Transfers permitted by Section 6.1;

(f) Investments consisting of the creation of a Subsidiary for the purpose of consummating a merger transactions and Permitted Acquisitions permitted by Section 6.3 of this Agreement, which is otherwise a Permitted Investment;

(g) Investments by Borrower in Subsidiaries that are not borrowers hereunder (or Guarantors), not to exceed (i) (x) Seven Million Five Hundred Thousand Dollars ($7,500,000) in the aggregate in any fiscal year; and (y) Three Million Dollars ($3,000,000) in any fiscal quarter, plus (ii) the ongoing day-to-day operations of such Subsidiaries in the ordinary course of business, so long as such (part (ii)) Investments are (A)

made on a cost-plus basis, or (B) otherwise in accordance with transfer pricing arrangements, or (C) are otherwise approved in advance in writing by Bank;

(h) Investments by Borrower in any other co-borrower under this Agreement or Guarantor;

(i) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers, directors, partners, managers and members relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee equity purchase plans or similar agreements approved by the Board;

(j) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business;

(k) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business; provided that this paragraph (j) shall not apply to Investments of Borrower in any Subsidiary;

(l) Cash investments of up to One Million Dollars ($1,000,000) per fiscal year, plus non-cash Investments in joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of the non-exclusive licensing of technology, the development of technology or the providing of technical support;

(m) any Permitted Call Spread Agreements;

(n) Permitted Acquisitions;

(o) Investments not to exceed Five Million Dollars ($5,000,000) per fiscal year to fund the expansion of Borrower and/or its Subsidiaries in (i) Japan, and/or (ii) any other jurisdiction as may be agreed by Bank (in its ~~good faith business~~commercially reasonable discretion) and Borrower; and

(p) other Investments not otherwise enumerated in this defined term "Permitted Investments" not exceeding Five Hundred Thousand Dollars ($500,000) in the aggregate during any fiscal year.

"**Permitted Liens**" are:

(a) Liens existing on the Effective Date which are shown on the Perfection Certificate or arising under this Agreement or the other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either (i) not due and payable or (ii) being contested in good faith and for which Borrower maintains adequate reserves on Borrower's Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code;

(c) purchase money Liens and equipment liens (i) on Equipment or software acquired or held by Borrower incurred for financing the acquisition of the Equipment or software securing no more than One Million Dollars ($1,000,000) in the aggregate amount outstanding, or (ii) existing on Equipment or software when acquired, if the Lien is confined to the property and improvements and the proceeds of the Equipment or software;

(d) Liens of carriers, warehousemen, suppliers, or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed Two Hundred Fifty Thousand Dollars ($250,000), and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(e) Liens to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA);

(f) Liens incurred in the extension, renewal or refinancing of the Indebtedness secured by Liens described in (a) through (c), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness may not increase;

(g) leases or subleases of real property granted in the ordinary course of Borrower's business (or, if referring to another Person, in the ordinary course of such Person's business), and leases, subleases, non-exclusive licenses or sublicenses of personal property (other than Intellectual Property) granted in the ordinary course of Borrower's business (or, if referring to another Person, in the ordinary course of such Person's business), if the leases, subleases, licenses and sublicenses do not prohibit granting Bank a security interest therein;

(h) (i) non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, (ii) licenses of Intellectual Property that could not reasonably be expected to result in a legal transfer of title of the licensed property that may be exclusive in respects of territory (as to discreet geographical areas inside and outside of the United States), and (iii) licenses existing on the Effective Date and disclosed on the Perfection Certificate;

(i) customary Liens of any bank in connection with statutory, common law and contractual rights of setoff and recoupment with respect to any deposit account or securities account of Borrower, provided that (i) Bank has a first priority perfected security interest in such account (if perfection is required pursuant to Section 5.9 of this Agreement), and (ii) such account is permitted to be maintained pursuant to Section 5.9 of this Agreement;

(j) Liens arising from attachments or judgments, orders, or decrees in circumstances not constituting an Event of Default under Sections and 7.7;

(k) deposits under real property leases that are made in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) at any time;

(l) easements, rights-of-way, restrictions and other similar encumbrances affecting real property which, in the aggregate, are not substantial in amount, and which do not in any case materially detract from the value of the property subject thereto or materially interfere with the ordinary conduct of the business of the applicable Person;

(m) other Liens (not otherwise enumerated in this defined term) not exceeding One Hundred Thousand Dollars ($100,000) in the aggregate outstanding at any time;

(n) Liens in respect of performance bonds, bid bonds, appeal bonds, surety bonds, completion guarantees and similar obligations arising in the ordinary course of business not to exceed Seven Hundred Fifty Thousand Dollars ($750,000) in the aggregate outstanding at any time; and

(o) Liens on cash and Cash Equivalents securing obligations under Permitted Hedging Agreements.

"**Person**" is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

"**Prepayment Fee**" is a fee due upon prepayment (whether voluntary or otherwise) of the Term Loan Advance in full prior to the Term Loan Maturity Date equal to ~~(i) one~~two percent (~~1.00~~2.00%) of the aggregate

~~original~~l principal amount of the Term Loan Advance ~~made by Bank to Borrower hereunder, if such prepayment occurs prior to the second (2nd) anniversary of the Effective Date, (ii) zero percent (0.00%) of the aggregate original principal amount of~~being prepaid on such date, provided, however, that no such Prepayment Fee is accrued or payable to Bank, and such Prepayment Fee is waived by Bank (i) with respect to the Term Loan Advance ~~made by Bank to Borrower hereunder if such prepayment occurs on or at any time after the second (2nd) anniversary of the Effective Date but prior to the Term Loan Maturity Date;~~ (as defined in the Agreement prior to the First Amendment Effective Date) prepaid on or around the First Amendment Effective Date, and (ii) if any such prepaid Term Loan Advance is refinanced through a new credit facility provided by Bank.

"**Prime Rate**" is set forth on Schedule I hereto.

"**Prime Rate Margin**" is set forth on Schedule I hereto.

"**Qualified Cash**" means the amount of the Borrower and its Subsidiaries cash and Cash Equivalents held with Bank and/or Banks' Affiliates and/or in accounts subject to a Control Agreement in favor of Bank;

"**Quarterly Financial Statements**" is defined in Section 5.3(~~a~~c).

"**Quick Assets**" is, on any date, Borrower's unrestricted and unencumbered cash and Cash Equivalents, including, for the avoidance of doubt, balances in the Cash Collateral Account, and Eligible Accounts.

"**Redemption Conditions**" means, with respect to any redemption by the Borrower of any Permitted Convertible Debt, satisfaction of each of the following events: (a) no Event of Default shall exist or result therefrom, (b) both immediately before and after such redemption, Borrower's Qualified Cash shall be no less than the amount required to prepay the outstanding Obligations in full at the time of such redemption, including all outstanding principal of the Term Loans, the accrued and unpaid interest thereon, the Final Payment, and the Prepayment Fee (provided, however, for the avoidance of doubt no such prepayment is required at such time), and (c) both immediately before and after such redemption, Borrower's Remaining Months Liquidity shall be no less than twelve (12).

"**Registered Organization**" is any "registered organization" as defined in the Code with such additions to such term as may hereafter be made.

"**Remaining Months Liquidity**" means Qualified Cash divided by Adjusted EBITDA (measured on a trailing twelve (12) month basis).

"**Representatives**" is defined in Section 11.8.

"**Reserves**" means, as of any date of determination, such amounts as Bank may from time to time establish and revise in its commercially reasonable discretion, reducing the amount of Advances and other financial accommodations which would otherwise be available to Borrower (a) to reflect events, conditions, contingencies or risks which, as determined by Bank in its commercially reasonable discretion, do or may adversely affect (i) the Collateral or any other property which is security for the Obligations or its value (including without limitation any increase in delinquencies of Accounts), (ii) the assets, business or prospects of Borrower or any Guarantor, or (iii) the security interests and other rights of Bank in the Collateral (including the enforceability, perfection and priority thereof); or (b) to reflect Bank's reasonable belief that any collateral report or financial information furnished by or on behalf of Borrower or any Guarantor to Bank is or may have been incomplete, inaccurate or misleading in any material respect; or (c) in respect of any state of facts which Bank determines in its commercially reasonable discretion constitutes a Default or an Event of Default.

"**Responsible Officer**" is any of the Chief Executive Officer, President, Chief Financial Officer, Chief Legal Officer, and Controller of Borrower.

"**Restricted License**" is any material license or other material agreement with respect to which Borrower is the licensee (a) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property, or (b) for which a default under or termination of could interfere with Bank's right to sell any material Collateral.

"**Revolving Line**" is set forth on Schedule I hereto.

"**Revolving Line Maturity Date**" is set forth on Schedule I hereto.

"**Sanctioned Person**" means a Person that: (a) is listed on any Sanctions list maintained by OFAC or any similar Sanctions list maintained by any other Governmental Authority having jurisdiction over Borrower; (b) is located, organized, or resident in any country, territory, or region that is the subject or target of Sanctions; or (c) is fifty percent (50.0%) or more owned or controlled by one (1) or more Persons described in clauses (a) and (b) hereof.

"**Sanctions**" means the economic sanctions laws, regulations, embargoes or restrictive measures administered, enacted or enforced by the United States government and any of its agencies, including, without limitation, OFAC and the U.S. State Department, or any other Governmental Authority having jurisdiction over Borrower.

"**SEC**" is the Securities and Exchange Commission, any successor thereto, and any analogous Governmental Authority.

"**Securities Account**" is any "securities account" as defined in the Code with such additions to such term as may hereafter be made.

~~"**Solar Capital**" means Solar Capital Ltd., as collateral agent and as a lender, and the other lenders party to that certain Loan and Security Agreement by and among such parties and Borrower, dated as of May 29, 2020, as amended and/or restated).~~

"**Streamline Balance**" is defined in the definition of Streamline Period.

"**Streamline Period**" is, on and after the First Amendment Effective Date, provided no Event of Default has occurred and is continuing, the period (a) commencing on the first (1st) day of the month following the day that Borrower provides to Bank a written report that Borrower has, for the immediately preceding month, measured at month-end (only when Advances are outstanding or are being requested by Borrower), as determined by Bank in its commercially reasonable discretion, an Adjusted Quick Ratio in an amount as of such measurement date of greater than or equal to 1.50 to 1.00 (the "**Streamline Balance**"); and (b) terminating on the earlier to occur of (i) the occurrence of an Event of Default, and (ii) the first month-end measured thereafter in which Borrower fails to maintain the Streamline Balance, as determined by Bank in its commercially reasonable discretion. Upon the termination of a Streamline Period, Borrower shall maintain the Streamline Balance each month end for one (1) fiscal quarter, as determined by Bank in its commercially reasonable discretion, prior to entering into a subsequent Streamline Period. Borrower shall give Bank prior written notice of Borrower's election to enter into any such Streamline Period, and each such Streamline Period shall commence on the first (1st) day of the monthly period following the date Bank determines, in its commercially reasonable discretion, that the Streamline Balance has been achieved.

"**Subordinated Debt**" is indebtedness incurred by Borrower or any of its Subsidiaries subordinated to all of Borrower's or any of its Subsidiaries' now or hereafter indebtedness to Bank (pursuant to a subordination, intercreditor, or other similar agreement in form and substance satisfactory to Bank entered into between Bank and the other creditor), on terms acceptable to Bank. For the avoidance of doubt, Permitted Convertible Debt shall not constitute Subordinated Debt.

"**Subsidiary**" is, as to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock, partnership, membership, or other ownership interest or other equity securities having ordinary voting power (other than stock, partnership, membership, or other ownership interest or other equity securities having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such corporation, partnership or other entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly through one or more intermediaries, or both, by such Person. Unless the context otherwise requires, each reference to a Subsidiary herein shall be a reference to a Subsidiary of Borrower or Guarantor.

"**Taxes**" means all present or future taxes, levies, imposts, duties, deductions, withholdings (including backup withholding), assessments, fees or other charges imposed by any Governmental Authority, including any interest, additions to tax or penalties applicable thereto.

"**Term Loan Advance**" is defined in Section 1.1(a) of this Agreement.

"**Term Loan Amortization Date**" is set forth on Schedule I hereto.

"**Term Loan Availability Amount**" is set forth on Schedule I hereto.

"**Term Loan Maturity Date**" is set forth on Schedule I hereto.

"**Termination Fee**" is defined in Section 1.3(c).

"**Total Liabilities**" is on any day, obligations that should, under GAAP, be classified as liabilities on Borrower's consolidated balance sheet, including all Indebtedness, but excluding all Subordinated Debt.

"**Trademarks**" means, with respect to any Person, any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of such Person connected with and symbolized by such trademarks.

"**Transfer**" is defined in Section 6.1.

"**Uncommitted Accordion**" is defined in Section 1.1(a) of this Agreement.

"**USA Patriot Act**" means the "Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001" (Public Law 107-56, signed into law on October 26, 2001), as amended from time to time.

[*Signature page follows*]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the Effective Date.

BORROWER:

SI-BONE, INC.

By: _____

Name: Anshul Maheshwari

Title: Chief Financial Officer

BANK:

SILICON VALLEY BANK

By: _____

Name: Mark Davis

Title: Vice President

SCHEDULE I

LSA PROVISIONS

LSA Section	**LSA Provision**
1.1A(a) – Revolving Line - Availability	Amounts borrowed under the Revolving Line may be prepaid or repaid and, prior to the Revolving Line Maturity Date, reborrowed, subject to the applicable terms and conditions precedent herein, without penalty or premium.
1.1(a) – Term Loan – Availability	The initial Term Loan Advance must be in an amount equal to the initial Term Loan Availability Amount available on the First Amendment Effective Date (excluding the Uncommitted Accordion, for the avoidance of doubt). After repayment, the Term Loan Advance (or any portion thereof) may not be reborrowed.
1.1(b) – Term Loan – Repayment	Commencing on the Term Loan Amortization Date, and continuing on each Payment Date thereafter until the Term Loan Advance is paid in full, Borrower shall repay the outstanding Term Loan Advance in (i) thirty ~~(a) twenty-four (24~~30) equal monthly installments of principal~~ if the Performance Milestone does not occur, or (b) thirty-six (36) equal monthly installments of principal if the Performance Milestone occurs~~, plus (ii) monthly payments of accrued interest in accordance with Section 1.2(a)(ii) at the rate set forth in Section ~~1.2(b)(i)~~1.2(b)(ii).
1.2(a)(i) – Interest Payments - Advances	Interest on the outstanding principal amount of each Advance is payable in arrears monthly (A) on each Payment Date, (B) on the date of any prepayment and (C) on the Revolving Line Maturity Date.
1.2(a)(ii) – Interest Payments – Term Loan ~~Advance~~Advances	Interest on the outstanding principal amount of the Term Loan Advance is payable in arrears monthly (i) on each Payment Date commencing on the first Payment Date following the Funding Date of each such Term Loan Advance, (ii) on the date of any prepayment of the Term Loan Advance, and (iii) on the Term Loan Maturity Date.
1.2(b)(i) – Interest Rate - Advances	The outstanding principal amount of any Advance shall accrue interest at a floating rate per annum equal to the greater of (A) six and one quarter of one percent (6.25%) and (B) the Prime Rate plus the applicable Prime Rate Margin, which interest shall be payable in accordance with Section 1.2(a)(i).
1.2(b)(~~i~~ii) – Interest Rate – Term Loan ~~Advance~~Advances	The outstanding principal amount of the Term Loan Advance shall accrue interest at a floating rate per annum equal to the greater of (A) ~~five~~six and three quarters of one percent (~~5.75~~6.75%) and (B) the Prime Rate plus the applicable Prime Rate Margin, which interest shall be payable in accordance with Section 1.2(a)(ii).
1.2(e) – Interest Computation	Interest shall be computed on the basis of the actual number of days elapsed and a 360-day year for any Credit Extension outstanding.

LSA Section	LSA Provision
1.3(c) – Revolving Line Commitment Fee	A fully earned, non-refundable commitment fee of (i) Seventy-Five Thousand Dollars ($75,000) on the First Amendment Effective Date, (ii) Seventy-Five Thousand Dollars ($75,000) on the first anniversary of the First Amendment Effective Date, and (iii) Thirty-Seven Thousand Five Hundred ($37,500) on the second anniversary of the First Amendment Effective Date.
12.2 – "Borrower"	"**Borrower**" means (i) **SI-BONE, INC.**, a Delaware corporation.
12.2 – "Effective Date"	"**Effective Date**" is August 12, 2021.
12.2 – "Payment Date"	"**Payment Date**" is (a) with respect to Term Loan Advances, the first (1st) calendar day of each month and (b) with respect to Advances, the last calendar day of each month.
12.2 – "Prime Rate"	"**Prime Rate**" is the rate of interest per annum from time to time published in the money rates section of The Wall Street Journal or any successor publication thereto as the "prime rate" then in effect; provided that if such rate of interest, as set forth from time to time in the money rates section of The Wall Street Journal, becomes unavailable for any reason as determined by Bank, the "Prime Rate" shall mean the rate of interest per annum announced by Bank as its prime rate in effect at its principal office in the State of California (such Bank announced Prime Rate not being intended to be the lowest rate of interest charged by Bank in connection with extensions of credit to debtors); provided that, in the event such rate of interest is less than zero percent (0.0%) per annum, such rate shall be deemed to be zero percent (0.0%) per annum for purposes of this Agreement.
12.2 – "Prime Rate Margin"	"**Prime Rate Margin**" is ~~two and~~(a) for Advances, (i) zero percent (0.00%), and (b) for Term Loan Advances, one half of one percent (~~2.50~~0.50%).
12.2 – "Revolving Line"	"**Revolving Line**" is an aggregate principal amount equal to Fifteen Million Dollars ($15,000,000).
12.2 – "Term Loan Amortization Date"	"**Term Loan Amortization Date**" is ~~September~~July 1, ~~2023~~2025.
12.2 – "Revolving Line Maturity Date"	"**Revolving Line Maturity Date**" is the date that is thirty (30) months after the First Amendment Effective Date.
12.2 – "Term Loan Availability Amount"	"**Term Loan Availability Amount**" is ~~Thirty-Five~~Thirty-Six Million Dollars ($~~35,000,000~~)36,000,000); provided however, upon Borrower's request, if Bank, in its sole and absolute discretion, grant Borrower's request to make the Uncommitted Accordion available to Borrower, then "**Term Loan Availability Amount**" shall mean an aggregate principal amount equal to Fifty-One Million Dollars ($51,000,000).
12.2 – "Term Loan Maturity Date"	"**Term Loan Maturity Date**" is ~~August~~December 1, ~~2025; provided, however, if Borrower achieves the Performance Milestone, then the Term~~

LSA Section	LSA Provision
	~~Loan Maturity Date shall automatically, with no further action required by the parties hereto, be extended through August 1, 2026~~2027.

EXHIBIT A

COMPLIANCE STATEMENT

TO: SILICON VALLEY BANK Date: _____
FROM: SI-BONE, INC.

Under the terms and conditions of the Loan and Security Agreement between Borrower and Bank (as amended, modified, supplemented and/or restated from time to time, the "**Agreement**"), Borrower is in complete compliance for the period ending _____with all required covenants except as noted below. Attached are the required documents evidencing such compliance, setting forth calculations prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes (and except for with respect to unaudited financial statements for the absence of footnotes and subject to year-end audit adjustments). Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under "Complies" column.

Reporting Covenants	Required	Complies
Quarterly Financial Statements with Compliance Statement	Quarterly within 45 days and FYE within 90 days	Yes No
Annual financial statements (CPA Audited)	FYE within 180 days	Yes No
10-Q, 10-K and 8-K	Within 5 Business Days after filing with SEC	Yes No N/A
Board approved projections	FYE within 30 days and within 30 days, as amended/updated, in each case as approved by the Board	Yes No
~~Other Matters~~ Borrowing Base Reports	When Advances are outstanding or are being requested, weekly on Friday of each week if an Streamline Period is not in effect; monthly within 30 days of mont End if and Streamline Period is in effect; and with each Advance	Yes No
A/R & A/P Agings and Deferred Revenue reports	When Advances are outstanding or are being requested, monthly within 30 days	Yes No
Have there been any material amendments to the Operating Documents of Borrower? If yes, provide copies of any such amendments or changes with this Compliance Statement.	N/A ~~Yes No~~	Yes No

Streamline Period (Measured only when Advances are outstanding or are being requested by Borrower)	Applies
Adjusted Quick Ratio > 1.50 to 1.00	Yes No
Adjusted Quick Ratio < 1.50 to 1.00	Yes No

The following financial covenant analyses and information set forth in Schedule 1 attached hereto are true and correct as of the date of this Compliance Statement.

The following are the exceptions with respect to the statements above: (If no exceptions exist, state "No exceptions to note.")

SI-Bone, INC.	**BANK USE ONLY**
By: _____	Received by: _____
Name: _____	AUTHORIZED SIGNER
Title: _____	Date: _____
	Verified: _____
	AUTHORIZED SIGNER
	Date: _____
	Compliance Status: Yes No

Schedule 1 to Compliance Statement

Financial Covenants of Borrower

In the event of a conflict between this Schedule and the Agreement, the terms of the Agreement shall govern.

I. **Minimum Net Revenue** (Section 5.10)

Required: When a Financial Covenant Measuring Period is in effect, Borrower shall achieve Net Revenue as required by Section 5.10 and set forth below (pursuant to the amendment(s) required under Section 5.10):

Measuring Period Ending	**Minimum Net Revenue (measured on a trailing 6 month basis)**
[___]	$[___]
[___]	$[___]
[___]	$[___]
[___]	$[___]

Actual: $_____

Is Borrower's Net Revenue (measured on a trailing 6 month basis) greater than or equal to the required amount for the corresponding measuring period set forth in the chart above?

_____ No, not in compliance _____ Yes, in compliance

EXHIBIT B

LOAN PAYMENT/ADVANCE REQUEST FORM

DEADLINE FOR SAME DAY PROCESSING IS NOON PACIFIC TIME

FAX TO: Date: _____

LOAN PAYMENT:

SI-BONE, INC.

From Account #_____ To Account _____
(Deposit Account #) (Loan Account #)

Principal $_____ and/or Interest $_____

Authorized Signature:_____ Phone Number: _____
Print Name/Title: _____

LOAN ADVANCE:

Complete *Outgoing Wire Request* section below if all or a portion of the funds from this loan advance are for an outgoing wire.

From Account #_____ To Account #_____
(Loan Account #) (Deposit Account #)

Amount of Term Loan Advance $_____

All Borrower's representations and warranties in the Loan and Security Agreement are true, correct and complete in all material respects on the date of the request for an advance; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true and correct in all material respects as of such date:

Authorized Signature:_____ Phone Number: _____

Print Name/Title: _____

OUTGOING WIRE REQUEST:

Complete only if all or a portion of funds from the loan advance above is to be wired.
Deadline for same day processing is noon, Pacific Time

Beneficiary Name: _____ Amount of Wire: $_____
Beneficiary Bank: _____ Account Number: _____
City and State: _____

Beneficiary Bank Transit (ABA) #: _____Beneficiary Bank Code (Swift, Sort, Chip, etc.): _____
(For International Wire Only)

Intermediary Bank: _____Transit (ABA) #: _____
For Further Credit to: _____

Special Instruction: _____

By signing below, I (we) acknowledge and agree that my (our) funds transfer request shall be processed in accordance with and subject to the terms and conditions set forth in the agreements(s) covering funds transfer service(s), which agreements(s) were previously received and executed by me (us).

Authorized Signature:_____2nd Signature (if required):_____
Print Name/Title:_____Print Name/Title:_____

Telephone #:_____	Telephone #:_____

Summary report: Litera Compare for Word 11.2.0.54 Document comparison done on 1/5/2023 2:03:48 PM	
Style name: DLAPiper	
Intelligent Table Comparison: Active	
Original DMS: iw://dms.us.dlapiper.com/WEST/300615610/1	
Modified DMS: iw://dms.us.dlapiper.com/WEST/300615610/6	
Changes:	
Add	297
~~Delete~~	136
~~Move From~~	7
Move To	7
Table Insert	11
~~Table Delete~~	6
Table moves to	0
~~Table moves from~~	0
Embedded Graphics (Visio, ChemDraw, Images etc.)	0
Embedded Excel	0
Format changes	0
Total Changes:	464

Exhibit 21.1

List of subsidiaries of the Registrant

Subsidiary	Jurisdiction
SI-BONE S.R.L.	Italy
SI-BONE Deutschland GmbH	Germany
SI-BONE UK LTD	United Kingdom

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (Nos. 333-227907, 333-230473, 333-237091, 333-254086 and 333-263189) of SI-BONE, Inc. of our report dated March 2, 2023 relating to the financial statements, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
San Jose, California
March 2, 2023

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Laura A. Francis, certify that:

1. I have reviewed this Form 10-K of SI-BONE, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   1) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   2) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   3) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   4) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5) The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   1) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   2) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 2, 2023

/s/ Laura A. Francis
Laura A. Francis
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Anshul Maheshwari, certify that:

1. I have reviewed this Form 10-K of SI-BONE, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   1) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   2) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   3) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   4) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5) The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   1) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   2) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 2, 2023

/s/ Anshul Maheshwari
Anshul Maheshwari
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER AND PRINCIPAL FINANCIAL OFFICER
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Laura A. Francis, Chief Executive Officer of SI-BONE, Inc. (the "Company"), and Anshul Maheshwari, Chief Financial Officer of the Company, each hereby certify that, to the best of his or her knowledge:

1. The Company's Annual Report on Form 10-K for the period ended December 31, 2022, to which this Certification is attached as Exhibit 32.1 (the "Periodic Report"), fully complies with the requirements Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

2. The information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 2, 2023

/s/ Laura A. Francis
Laura A. Francis
Chief Executive Officer
(Principal Executive Officer)

Date: March 2, 2023

/s/ Anshul Maheshwari
Anshul Maheshwari
Chief Financial Officer
(Principal Financial and Accounting Officer)

This certification is being furnished to the Securities and Exchange Commission as an exhibit to the Annual Report and shall not be deemed filed by the Company for purposes of §18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.