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 SECURITY EXCHANGE ACT OF 1934**

For the fiscal year ended January 1, 2022

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITY EXCHANGE ACT OF 1934**

For the transition period from _____to _____.

Commission File Number 0-27598

IRIDEX CORPORATION

(Exact name of Registrant as specified in its charter)

Delaware		**77-0210467**
(State or other jurisdiction of incorporation or organization)		**(I.R.S. Employer Identification No.)**
1212 Terra Bella Avenue **Mountain View, CA** **(Address of principal executive offices)**	**(650) 940-4700** **(Registrant's telephone number, including area code)**	**94043** **(Zip Code)**

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

Title of each class	Trading Symbol	Name of Exchange on Which Registered
Common Stock, par value $0.01 per share	IRIX	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 of 1933. Yes ☐ No ☑

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act"). Yes ☐ No ☑

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☑ 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 definition 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 13(a) of the Exchange 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. ☐

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

The aggregate market value of the voting common equity held by non-affiliates of the Registrant was approximately $85,283,994 as of July 2, 2021, the last business day of the Registrant's most recently completed second fiscal quarter, based on the closing price reported for such date on the Nasdaq Global Market. The registrant did not have any non-voting common equity outstanding. For purposes of this disclosure, shares of common stock held by each executive officer and director and by each holder of 5% or more of the outstanding shares of common stock have been excluded from this calculation, because such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 3, 2022, Registrant had 15,882,616 shares of common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain parts of the Proxy Statement for the Registrant's 2022 Annual Meeting of Stockholders (the "Proxy Statement") are incorporated by reference into Part III of this Annual Report on Form 10-K.

NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, which statements involve substantial risks and uncertainties. Forward-looking statements generally relate to future events or our future financial or operating performance. In some cases, you can identify forward-looking statements because they contain words such as “may,” “will,” “should,” “expects,” “plans,” “anticipates,” “could,” “intends,” “target,” “projects,” “contemplates,” “believes,” “estimates,” “predicts,” “potential,” or “continue” or the negative of these words or other similar terms or expressions that concern our expectations, strategy, plans, or intentions. Forward-looking statements contained in this Annual Report on Form 10-K include, but are not limited to, statements about:

- our future financial performance, including our expectations regarding our revenue, cost of revenue, gross profit or gross margin, operating expenses (including changes in sales and marketing, research and development and general and administrative expenses), and our ability to achieve and maintain future profitability;
- the impact of the COVID-19 pandemic and related responses of business and governments to the pandemic on our operations and personnel, and on commercial activity and demand of our products, business operations, and results of operations;
- customer acceptance and purchase of our existing products and new products;
- our ability to maintain and expand our customer base;
- competition from other products;
- the impact of foreign currency exchange rate and interest rate fluctuations on our results and sales;
- the pace of change and innovation in the markets in which we participate and the competitive nature of those markets;
- our business strategy and our plan to build our business;
- our ability to effectively manage our growth;
- the success of our strategic partnership with Topcon Corporation;
- our costs of manufacturing and reliance on third party manufacturers;
- our ability to forecast and meet product demand;
- our ability to discover defects in our products and systems;
- our international expansion and sales strategy;
- our operating results and cash flows;
- our beliefs and objectives for future operations;
- our relationships with third parties;
- our ability to maintain, protect, and enhance our intellectual property rights;
- our ability to maintain, protect, and enhance our information technology systems and data;
- our ability to maintain our facilities in good working order;
- our ability to recover the carrying value of goodwill;
- the impact of expensing stock options and other equity awards;
- our ability to successfully defend litigation brought against us;
- our ability to indemnify our directors and officers;
- our ability to repay indebtedness and have indebtedness forgiven;
- our ability to successfully expand in our existing markets and into new markets;
- sufficiency of cash to meet cash needs for at least the next 12 months;
- our ability to comply with laws, policies, and regulations that currently apply or become applicable to our business both in the United States and internationally;
- our ability to attract and retain qualified employees and key personnel, and source suppliers;
- our ability to raise additional capital;
- the future trading prices of our common stock; and
- our ability to pay dividends in the future.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this 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.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report on Form 10-K primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations, and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties, and other factors described in the section titled “Risk Factors” and elsewhere in this Annual Report on Form 10-K. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report on Form 10-K. We cannot assure you that the results, events, and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events, or circumstances could differ materially from those described in the forward-looking statements.

The forward-looking statements made in this Annual Report on Form 10-K relate only to events as of the date on which such statements are made. We undertake no obligation to update any forward-looking statements made in this Annual Report on Form 10-K to reflect events or circumstances after the date of this Annual Report on Form 10-K or to conform such statements to actual results or revised expectations, except as required by law. We may not actually achieve the plans, intentions, or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures, or investments we may make.

As used in this Annual Report on Form 10-K, the terms “Company,” “Iridex,” “we,” “us” and “our” refer to Iridex Corporation, and its consolidated subsidiaries.

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PART I

Item 1. Business

Overview

Iridex Corporation is an ophthalmic medical technology company focused on the development and commercialization of breakthrough products and procedures used to treat sight-threatening eye conditions, including glaucoma and retinal diseases. Certain of our laser products are powered by our proprietary MicroPulse® technology, which is a method of delivering laser energy using a mode which chops the continuous wave laser beam into short, microsecond-long laser pulses. Our products consist of laser consoles, delivery devices and consumable instrumentation, including laser probes.

Our laser consoles consist of the following product lines:

- **Glaucoma** – This product line includes our Cyclo G6® Laser and delivery devices used for the treatment of glaucoma;
- **Medical Retina** – Our medical retina product line includes our IQ 532® Laser and IQ 577® Laser photocoagulation systems, which are used for the treatment of diabetic macular edema and other retinal diseases, and our PASCAL® Synthesis Photocoagulator for the treatment of retinal diseases; and
- **Surgical Retina** – Our surgical retina line of products includes our OcuLight® TX, OcuLight SL, OcuLight SLx, OcuLight GL and OcuLight GLx laser photocoagulation systems. The OcuLight systems are often used in vitrectomy procedures, which are used to treat proliferative diabetic retinopathy, macular holes, retinal tears and detachments.

Our business generates recurring revenues through sales of consumable products, predominantly single-use laser probe devices and other instrumentation, as well as repair, servicing and extended service contracts for our laser systems. Our laser probes consist of the following product lines:

- **Glaucoma** – Probes used in our glaucoma product line include our patented MicroPulse P3® Probe, G-Probe® and G-Probe Illuminate®; and
- **Surgical Retina** – Our surgical retina probes include our EndoProbe® family of products used in vitrectomy procedures.

Ophthalmologists typically use our laser systems in hospital operating rooms (“ORs”) and ambulatory surgical centers (“ASCs”), as well as their offices and clinics. In ORs and ASCs, ophthalmologists use our laser systems with either an indirect laser ophthalmoscope or a consumable, single use MicroPulse P3 probe, G-Probe, G-Probe Illuminate or EndoProbe.

In 2021 and 2020, our products were sold in the United States and Germany predominantly through a direct sales force and internationally (aside from Germany) primarily through independent distributors. Total revenues in 2021 and 2020 were $53.9 million and $36.3 million, respectively. We generated net losses of $5.2 million and $6.3 million in 2021 and 2020, respectively.

Iridex Corporation was incorporated in California in February 1989 as IRIS Medical Instruments, Inc. In January 1996, we changed our name to Iridex Corporation and reincorporated in Delaware. Our executive offices are located at 1212 Terra Bella Avenue, Mountain View, California 94043-1824, and our telephone number is (650) 940-4700. We can also be reached at our website at www.Iridex.com; however, the information on, or that can be accessed through, our website is not part of this report.

Impact of COVID-19 to our Business

The COVID-19 pandemic continues to create significant uncertainty in global markets, which has disrupted and harmed, and may continue to disrupt and harm, the Company's business, financial condition, and results of operations. The extent of the impact of COVID-19 on the Company's operational and financial performance will depend on certain developments, including but not limited to the duration and spread of the outbreak, duration of local, state and federal issued public health orders, impact on our customers and our sales cycles, impact on our employees and impact on regional and worldwide economies and markets in general, all of which are uncertain and cannot be predicted.

We expect our results of operations to be impacted for so long as the COVID-19 pandemic continues.

For more information on risks associated with the COVID-19 pandemic, see the section titled “Risk Factors” in Item 1A of Part I. For more information on the impact of COVID-19 on our business, see the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operation” in Item 7 of Part II.

Our Market Opportunity

Ophthalmology is a large and growing global market that is driven by the aging world population and the onset of chronic diseases. We currently target the glaucoma and retina disease markets.

Glaucoma

Glaucoma is a leading cause of blindness in the world. Glaucoma is a progressive, chronic disease and vision loss resulting from glaucoma currently cannot be regained. According to Market Scope’s 2020 Laser Market Report, an estimated 101.6 million people worldwide suffer from glaucoma and an additional 42.2 million people suffer from ocular hypertension, for a total of almost 143.8 million candidates for glaucoma treatment. Market Scope expects this to grow at a compounded rate of 2.6 percent through 2025. Glaucoma is most commonly associated with elevated levels of pressure within the eye, or intraocular pressure (“IOP”). Elevated IOP often occurs when aqueous humor, the thin watery fluid that fills the front of the eye, is not circulating normally and draining properly. Currently, reducing IOP is the only proven treatment for glaucoma with treatments primarily focused on improving the flow of aqueous humor through the eye’s trabecular meshwork and uveoscleral outflow pathways. Global sales of products used to diagnose and treat glaucoma were expected to total $5.8 billion in 2018, according to Market Scope’s 2018 Global Glaucoma Surgical Device Report.

Pharmaceutical products represent a majority of this revenue estimate but have significant shortcomings. Pharmaceuticals are typically the first treatment method prescribed for glaucoma. These pharmaceutical treatments are commonly self-administered in drop form by the patients. Patients often have difficulties applying the pharmaceutical drops properly and may fail to appropriately or timely apply the medication, which may significantly reduce the effectiveness of the eye drops. This poor adherence to and lack of persistence with glaucoma medication regimens have been documented in numerous independent studies, which often place the incidence of patient noncompliance up to or above 50%, particularly in patients on two or more prescription eye drops. Even when administered correctly, pharmaceuticals have demonstrated reduced efficacy over time.

When pharmaceuticals lose their effectiveness, appropriate treatment options are determined based on the progression and severity of the disease and include traditional laser therapy (e.g., selective laser trabeculoplasty (“SLT”), minimally invasive stents/shunts (e.g., minimally invasive glaucoma surgery) and open surgery (e.g., trabeculectomy)). These treatment alternatives also have significant shortcomings due to treatment effects that dissipate over time, repeat procedures that are less effective or not clinically advised, limited indications of use, and significant complication risks.

We believe that because of the limitations of these traditional treatment alternatives, a clear unmet medical need exists in the management of glaucoma patients.

Medical Retina

Our medical retina business focuses on the treatment of diabetic macular edema (“DME”) which is part of a broader disease state called diabetic retinopathy. Diabetic retinopathy is a common complication of diabetes which impairs vision over time and, if left untreated, can lead to blindness. An estimated 463 million people worldwide had diabetes in 2019, according to the International Diabetes Federation. The federation predicts that there will be 578 million people with diabetes by 2030, and as many as 700 million will have diabetes globally by 2045. Previous clinical publications, such as an article cited at the U.S. National Institutes of Health’s National Library of Medicine, indicated 28.5% of diabetic patients can develop some form of diabetic retinopathy. Traditional laser photocoagulation and a regimen of injected pharmaceuticals are currently the standard treatment for this disease and are associated with significant shortcomings. Traditional laser photocoagulation can stabilize the patient’s vision over the long term but presents a risk of varying degrees of vision loss to the patient. Pharmaceuticals can stabilize vision in the near term but require repeated injections. The injections are painful and the patients may experience side effects including increased risk of eye infections. Furthermore, a regimen of repeated pharmaceutical injections is very demanding to the physician and patient in terms of time and to the healthcare system at large with regard to dollars spent on treatment.

The shortcomings in treating retinal diseases have led to a renewed interest in alternative approaches that may provide better or comparable patient outcomes at lower costs.

Our Solution

Our traditional laser technology was developed to perform laser photocoagulation by using a mode that delivers continuously-on laser light, which is referred to as continuous wave ("CW") mode. Laser photocoagulation generates a local healing response and has been demonstrated to be a safe and effective therapy with long-term benefits for certain ophthalmic procedures. However, use of the CW mode typically leads to local tissue damage and can cause loss of visual function, which limits the applications of the technology.

We developed our proprietary MicroPulse® technology with the goal of harnessing the clinical benefits of CW mode while minimizing the associated tissue damage. MicroPulse is a method of delivering laser energy using a mode which chops the CW beam into short, microsecond long laser pulses. The laser pulses are intended to generate the desired therapeutic response while the time in between laser pulses is believed to enable the tissue to cool and thereby minimize tissue damage. This is analogous to holding one's hand continuously over a candle versus waving it back and forth. When held continuously, the candle would cause burning and scar tissue. However, when exposed intermittently the candle only heats the tissue without burning.

There is a growing body of clinical evidence that has been published over the past 10 years that demonstrates that MicroPulse therapy is clinically effective with limited tissue damage for the treatment of glaucoma and retinal diseases. Currently, we have developed three applications of our MicroPulse technology for the treatment of eye diseases:

MicroPulse Applications	**Description**
Glaucoma – uveoscleral outflow	**Treats glaucoma using our Cyclo G6® Laser system and MicroPulse P3 Delivery Device.** MicroPulse P3 is Iridex's proprietary, single-use, disposable probe. It delivers MicroPulse laser energy transsclerally (through the white of the eye) to target the ciliary body inside the eye. The ciliary body controls various ocular functions including aqueous humor production, and it helps facilitate the reduction of aqueous humor via outflow channels. MicroPulse transscleral laser therapy ("TLT") is a non-incisional treatment that reduces IOP primarily through uveoscleral outflow. Numerous peer-reviewed published clinical studies have demonstrated MicroPulse TLT as a safe and clinically effective treatment to lower patients' IOP and reduce the number of topical eye drops and oral medications across a wide spectrum of glaucoma types and disease severity. Glaucoma specialists and comprehensive ophthalmologists incorporate MicroPulse TLT before, in combination with, and after other surgical therapies. It's a repeatable procedure which does not impact the patients' quality of life nor does it inhibit future interventions.
Glaucoma - trabecular meshwork outflow	**Treats glaucoma with our IQ laser systems.** MicroPulse laser is delivered through a mechanical and optical delivery device and targets the trabecular meshwork. Physicians describe the technique as MicroPulse Laser Trabeculoplasty ("MLT"). It is believed that the MLT procedure improves trabecular meshwork outflow and thus lowers IOP. According to studies, MLT procedure provides incremental clinical benefits relative to other laser trabeculoplasty procedures such as SLT.
Medical Retina - DME	**Treats DME with our IQ laser systems**. MicroPulse laser is administered through a mechanical and optical delivery device that rapidly delivers multiple treatment spots on the retina. Our MicroPulse laser is uniquely believed to be "fovea friendly" in that the laser can be used to treat the fovea, the center of the field of vision in the retina, without any loss of visual function. Instead of causing thermal damage like traditional lasers, MicroPulse laser is believed to induce a therapeutic response through the recruitment of biological factors such as heat shock proteins. We believe that the treatment of DME with MicroPulse laser therapy has several competitive advantages over alternate therapies with respect to long term vision stability, visual function, and cost effectiveness.

Our Strategy

We are a worldwide leader in developing, manufacturing, marketing, selling and servicing innovative medical laser systems and associated instrumentation for the treatment of sight-threatening eye diseases. Our strategy is to leverage our existing brand and distribution channel in the ophthalmology market to promote the adoption of MicroPulse as a viable treatment alternative for glaucoma and retinal diseases and consequently to commercialize a broad array of products that:

- Improve therapeutic outcomes for patients suffering from sight-threatening eye diseases;
- Improve the efficiency of physicians and reduce their costs; and
- Provide economic benefits to healthcare systems.

To achieve these goals, we are pursuing several organic initiatives that we anticipate will be supplemented from time to time by acquisitions, such as the asset acquisition completed with one of the subsidiaries for Topcon Corporation ("Topcon"). We anticipate that the successful execution of this strategy will lead to profitable growth and enhanced shareholder value.

Our Products

Our current product portfolio utilizes a system approach. Each system includes a laser console, which generates the laser energy, and a number of interchangeable delivery devices or disposable probes for use in specific clinical applications. This approach allows our customers to purchase a basic laser system and add additional delivery devices or disposable probes as their therapeutic needs expand or as new applications develop. We currently offer three basic product categories: 1) laser consoles, 2) delivery devices which are optical-mechanical products that mount to ophthalmologists' diagnostic equipment and transmit the laser and 3) single-use disposable probes that transmit the laser light to a targeted region inside the eye.

Laser Consoles

Our laser consoles, which are identified below, incorporate the economic and technical benefits of solid state and semiconductor laser technology.

Glaucoma: Cyclo G6® Laser. The Cyclo G6 Laser is an infrared (810nm) laser designed to treat patients diagnosed with a range of glaucoma disease states. The Cyclo G6 Laser is sold with a family of probes that are disposable, including our patented MicroPulse P3® Probe that utilizes our MicroPulse technology, our G-Probe® and our G-Probe Illuminate®.

Medical retina: IQ laser systems. Our IQ laser systems offer our MicroPulse technology but also have Continuous wave ("CW") capabilities. Our IQ 577® Laser delivers visible yellow (577nm) laser light and our IQ 532® Laser delivers visible green (532nm) laser light. Our IQ laser systems are typically used with our TxCell® Scanning Laser Delivery System and our Slit Lamp Adapters when used to treat DME with MicroPulse. *PASCAL Synthesis Photocoagulator.* Our PASCAL Synthesis Photocoagulator (532nm, 577nm and 577/636nm) intended for diagnosis and treatment of ocular pathology in both the posterior and anterior segments. Intended for use in the posterior segment to perform retinal photocoagulation, panretinal photocoagulation, focal photocoagulation and grid photocoagulation for vascular and structural abnormalities of the retina and choroid.

Surgical retina: OcuLight laser systems. Our OcuLight® TX, OcuLight GL, and OcuLight GLx lasers deliver visible green (532nm) laser light. Our OcuLight SL and OcuLight SLx lasers deliver infrared (810 nm) laser light.

Delivery Devices

The following delivery devices are typically used with our IQ and OcuLight laser systems:

TxCell Scanning Laser Delivery System ("TxCell"). TxCell® allows the physician to perform multi-spot pattern scanning for efficient delivery of our MicroPulse laser.

Slit Lamp Adapter ("SLA"). These adapters allow the physician to utilize a standard slit lamp in both diagnosis and treatment procedures. Physicians can install an SLA in a few minutes and convert standard diagnostic slit lamps into a therapeutic laser delivery system. SLAs are used in treatment procedures for both retinal diseases and glaucoma.

Laser Indirect Ophthalmoscope ("LIO"). The indirect ophthalmoscope is designed to be worn on the physician's head and to be used in procedures to treat peripheral retinal disorders, particularly in infants or adults requiring treatment in the supine position. This product can be used in both diagnosis and treatment procedures at the point-of-care.

Single-use disposable probes

MicroPulse P3® Delivery Device. The MicroPulse P3 is used with our Cyclo G6 Laser system to perform MicroPulse TLT. The MicroPulse P3 Probe is used on an anesthetized eye in the doctor's office or in the OR. The non-incisional procedure takes just a few minutes and results in minimal post-operative recovery for the patient. MicroPulse TLT may be used to treat a wide variety of glaucoma types, including open-angle and closed-angle glaucoma, and a broad range of disease severity.

Since the launch of the MicroPulse P3, we have worked with physicians to optimize treatment techniques and clinical outcomes. During our collaborations, we learned that minor ergonomic probe modifications could facilitate easier use and result in consistent clinical outcomes. In 2019, we released a revised MicroPulse P3 Probe that reflects these modifications. Feedback from physicians on our revised MicroPulse P3 has been very positive in terms of better viewing of the treatment area, ease of treating small eyes and deep-set eyes, more intuitive probe orientation and placement, better stabilization of the probe on the eye, and improved light coupling to the tissue. Physicians have continued to observe excellent safety profiles and good preliminary clinical results.

G-Probe® Delivery Device. The G-Probe is used in procedures to treat uncontrolled glaucoma, typically described as "refractory glaucoma." The G-Probe delivers CW laser to the ciliary body and is believed to stop the production of aqueous humor, thus reducing IOP. The G-Probe's non-invasive procedure takes approximately ten minutes and is performed on an anesthetized eye in the doctor's office or OR. The G-Probe is a sterile disposable product.

G-Probe Illuminate® Delivery Device. The G-Probe Illuminate is also used in procedures to treat refractory glaucoma. The proprietary illumination feature allows for targeted treatment and may offer additional clinical benefits. The G-Probe Illuminate is a sterile disposable product.

EndoProbe®. Our EndoProbe family of products are used for endophotocoagulation, a retinal treatment procedure performed in the hospital OR or surgery center during a vitrectomy procedure. Vitrectomy procedures are performed to treat proliferative diabetic retinopathy, macular holes, retinal tears and detachments. These disposable probes are available in tapered, angled, stepped, aspirating, illuminating, and adjustable styles, as well as a wide variety of sizes. The EndoProbe is a sterile disposable product.

Research and Development

We have close working relationships with researchers, clinicians and practicing physicians around the world who provide new ideas, evaluate prototypes and assist us in validating new products and new applications before they are introduced.

Our internal research and development ("R&D") activities are performed by a current team of 18 engineers and regulatory professionals with experience in various aspects of medical products, laser systems, delivery devices, clinical techniques, and regulatory affairs with a focus on introducing innovative products which satisfy the unmet and emerging needs of our customers. The core competencies of the team include: mechanical engineering, electrical engineering, optics, lasers, fiber optics, software, and industrial designs. The R&D process integrates all of the necessary disciplines from product inception through customer acceptance. This process facilitates reliable new product innovations and a consistent pipeline of innovative products for our customers.

Our research activities are managed internally by our R&D staff. We supplement our internal R&D staff by hiring consultants or partnering with physicians known for their expertise. Research efforts are directed toward the development of new products, as well as the identification of markets not currently addressed by our products.

We believe that it is important to make a substantial contribution to improving clinical outcomes. For instance, we have made substantial investments in improving the treatment of serious eye diseases such as glaucoma and retinal disease. The objectives of developing new treatments and applications are to expand the patient population, to better and more economically treat diseases, to treat patients earlier in the treatment regimen and to reduce the side effects of treatment.

We consider clinical projects to be a component of our R&D efforts and they may or may not result in additional commercial opportunities.

Customers and Customer Support

Our products are currently sold for use by ophthalmologists specializing in the treatment of eye disease in retina, glaucoma and pediatric eye diseases. Other customers include research and teaching hospitals, government installations, surgical centers, hospitals, veterinary practices, and office clinics (outpatient).

We seek to provide superior customer support and service and believe that our customer service and technical support distinguish our product offerings from those of our competitors. We provide depot service at our Mountain View facility for our products. Our customer support representatives assist customers with orders, warranty returns and other administrative functions. Our technical support engineers provide customers with answers to technical and product-related questions. We maintain an "around-the-clock" telephone service line to service our customers. If a problem with a depot serviceable product cannot be diagnosed and resolved by telephone, a service loaner is shipped overnight to domestic customers under warranty or service contract, and by the most rapid delivery means available to our international customers, and the problem unit is returned to us. The small size and rugged design of our products allows for economical shipment and quick response to customers worldwide.

Sales and Marketing

In 2021 and 2020, we sold and marketed our products in the United States and Germany predominantly through our direct sales force and internationally (aside from Germany) primarily through independent distributors. Currently we have a direct sales force of 23 employees who are engaged in sales efforts within the United States, 1 in Germany and 5 personnel engaged in managing our distribution sales efforts internationally. Our sales are administered through our corporate headquarters in Mountain View, California.

International revenues represented 52.6% and 46.9% of our revenues in 2021 and 2020, respectively. We believe that our international sales will continue to represent a significant portion of our revenues for the foreseeable future. Our international sales are made principally to customers in Europe, Asia, the Pacific Rim, the Middle East, Russia, Africa and Latin America. Our distribution agreements with our international distributors are generally exclusive and typically can be terminated by either party without cause with 90 days' notice. In March 2021, the Company entered into a distribution agreement with Topcon, pursuant to which the Company granted exclusive right to distribute the Company's retina and glaucoma products in certain international regions, for a period of 10 years, commencing upon regulatory approval to transfer existing distribution rights. International sales may be adversely affected by currency fluctuations, the imposition of governmental controls, restrictions on export technology, political instability, trade restrictions, changes in tariffs, tax treaties and the economic condition in each country in which we sell our products.

To support our sales process, we conduct marketing programs which include: our website, clinical education, social media, email marketing, trade shows, public relations, market research, key opinion leader collaborations and advertising in trade and academic journals and newsletters. We participate in trade shows worldwide on an annual basis. These meetings allow us to present our products to existing and prospective buyers.

Through marketing, we collaborate with our customers to identify new products and applications which help meet their needs, and in turn provides us with new product concepts, enhances our ability to identify new applications for our products and validates new procedures using our products. Customers include key opinion leaders who are often the heads of the departments in which they work or professors at universities. We believe that these luminaries in the field of ophthalmology are key to the successful introduction of new products and the subsequent acceptance of these new products by the general market. Acceptance of our products by these early adopters is key to our strategy in the validation and commercialization of our new products.

Clinical Affairs

Our clinical affairs group was established to support clinical research opportunities, provide specialized ophthalmic surgeon training and credentialing for our proprietary MicroPulse products, establish strong relationships with prominent key opinion leaders and assure the accuracy and consistency our messaging to the market. We believe that a strong research program underlying marketing initiatives and professional level training for our customers are key to driving the application of our technology for more widespread and consistent use.

Operations

The manufacture of our visible light and infrared laser consoles and the related delivery devices is a highly complex and precise process. Completed systems must pass quality control testing and quality assurance review before shipment. Our manufacturing activities consist of specifying, sourcing, assembling and testing of components and certain subassemblies for assembly into our final product. Currently we have a total of 17 employees engaged in manufacturing activities for these products.

The medical devices we manufacture are subject to extensive regulation by numerous governmental authorities, including federal, state, and foreign governmental agencies. The principal regulators in the United States are the Food and Drug Administration ("FDA") and the California Department of Public Health, Food and Drug Branch. In April 1998, we received certification for ISO 9001/EN 46001, which is an international quality system standard that documents compliance to the European Medical Device Directives. In February 2004, we were certified to ISO 13485:2003, which replaced ISO 9001/EN46001 as the international standard for quality systems as applied to medical devices. In December 2018, we were certified to ISO 13485:2016, which superseded the 2003 version of the standard. In August 2008, we received FDA 510(k) clearance on our family of Iridex IQ laser systems. This clearance covers the Iridex IQ 532 Laser and IQ 577 Laser and their associated delivery devices to deliver laser energy in either CW or MicroPulse mode. In January 2015, we received FDA 510(k) clearance for Cyclo G6 Laser. These laser systems are intended for a wide range of specific applications in the medical specialties of ophthalmology.

International regulatory bodies often establish varying product standards, packaging requirements, labeling requirements, tariff regulations, duties and tax requirements. As a result of our sales in Europe, we are required to have all products "CE" marked, an international symbol affixed to all our medical device products demonstrating compliance to the European Medical Device Directives and/or Medical Device Regulations and all applicable standards. In July 1998, we

received CE mark certification under Annex II guidelines, the most stringent path to CE certification. With Annex II CE mark certification, we have demonstrated our ability to both understand and comply with all applicable standards under the European Medical Device Directives. In May 2021, the Medical Device Directives were superceded by the Medical Device Regulations, with a transition period for our Class IIa and IIb products lasting in effect until May 2024, which allows Iridex to market these products during transition period. The Company will obtain certification of compliance to the Medical Device Regulations before May 2024. Currently, all of our products marketed within the EU are CE marked. Continued certification is based on successful review of quality management systems by our European Registrar (Notified Body) during its periodic audits. Any loss of certification could have a material adverse effect on our business, results of operations and financial condition. We rely on third parties to manufacture substantially all of the components used in our products, although we assemble critical subassemblies and the final product at our facility in Mountain View, California. Some of these suppliers and manufacturers are sole source. We have some long-term or volume purchase agreements with our suppliers but currently purchase most components on a purchase order basis. These components may not be available in the quantities required, on reasonable terms, or at all. Financial or other difficulties faced by our suppliers or significant changes in demand for these components or materials could limit their availability. Any failures by our third-party suppliers to adequately perform may delay the submission of products for regulatory approval, impair our ability to deliver products on a timely basis or otherwise impair our competitive position.

Competition

Competition in the market for laser systems and delivery devices used for ophthalmic treatment procedures is intense and is expected to increase. This market is also characterized by technological innovation and change. We compete by providing features and services that are valued by our customers such as: enhanced product performance and clinical outcomes, ease of use, durability, versatility, customer training services and rapid repair of equipment.

Our principal ophthalmic laser competitors are Alcon, Inc., Novartis AG, Bausch Health Companies Inc., Carl Zeiss Meditec AG, Ellex Medical Lasers, Ltd., Lumenis Ltd, Nidek Co. Ltd., Quantel Medical SA, OD-OS GmbH and A.R.C. Laser GmbH. We also compete with alternative glaucoma surgical device companies such as Alcon, Inc., Allergan, Inc., Glaukos Corporation, New World Medical, Inc. and Ivantis, Inc. Pharmaceuticals represent alternative treatments to our laser procedures. Some of our principal pharmaceutical competitors are Alcon, Inc., Allergan, Inc., Astellas Pharma Inc., Pfizer Inc., Regeneron Pharmaceuticals, Inc., Roche Holding Ltd. (Genentech) and Bausch Health Companies Inc. Some of our competitors have substantially greater financial, engineering, product development, manufacturing, marketing and technical resources than we do. Some companies also have greater name recognition than us and long-standing customer relationships. In addition, other medical companies, academic and research institutions, or others, may develop new technologies or therapies, including medical devices, surgical procedures or pharmacological treatments and obtain regulatory approval for products utilizing such techniques that are more effective in treating the conditions targeted by us, or are less expensive than our current or future products. Our technologies and products could be rendered obsolete by such developments. Any such developments could have a material adverse effect on our business, financial condition and results of operations.

Patents and Proprietary Rights

Our success and ability to compete is dependent in part upon our proprietary information. We rely on a combination of patents, trade secrets, copyright and trademark laws, nondisclosure and other contractual agreements and technical measures to protect our intellectual property rights. These are either developed internally or obtained from acquisitions that we make. We file patent applications to protect technology, inventions and improvements that are significant to the development of our business. Our patent portfolio includes 57 active United States patents and 95 active foreign patents on the technologies related to our products and processes. In addition, we have 11 patent applications pending in the United States and 24 foreign patent applications pending. Our patent applications may not be approved.

In addition to patents, we rely on trade secrets and proprietary know-how which we seek to protect, in part, through proprietary information agreements with employees, consultants and other parties. Our proprietary information agreements with our employees and consultants contain provisions requiring such individuals to assign to us, without additional consideration, any inventions conceived or reduced to practice by them while employed or retained by us, subject to customary exceptions. We can provide no assurance that our employees and consultants will abide by the provisions of these agreements and that our confidential information and trade secrets will be protected.

Government Regulation

The medical devices marketed and manufactured by us are subject to extensive regulation by numerous governmental authorities, including federal, state, and foreign governmental agencies. Pursuant to the Federal Food, Drug, and Cosmetic Act (“FD&C Act”), as amended, and the regulations promulgated thereunder, the FDA serves as the principal federal agency within the United States with authority over medical devices and regulates the research, clinical testing, manufacture, labeling, distribution, sale, marketing and promotion of such devices. Noncompliance with applicable requirements can result

in, among other things, warning letters, fines, injunctions, civil penalties, recall or seizures of products, total or partial suspension of production, failure of the government to grant pre-market clearance or approval for devices, withdrawal of marketing approvals, and criminal prosecution. The FDA also has the authority to request repair, replacement or refund of the cost of any medical device manufactured or distributed by us.

In the United States, medical devices are classified into one of three classes - Class I, II or III. The class to which the device is assigned determines, among other things, the type of pre-marketing submission/application required for FDA clearance to market. If the device is classified as Class I or II, and if it is not exempt, a 510(k) pre-market notification will be required for marketing. Under FDA regulations, Class I devices are subject to general controls (for example, labeling, pre-market notification and adherence to Quality System Regulations ("QSRs") requirements). Class II devices receive marketing clearance through a 510(k) pre-market notification. For Class III devices, a pre-market approval ("PMA") application will be required unless the device is a pre-amendments device (on the market prior to the passage of the medical device amendments in 1976, or substantially equivalent to such a device) and PMAs have not been called for. In that case, a 510(k) will be the route to market. A 510(k) clearance will be granted if the submitted information establishes that the proposed device is substantially equivalent to a legally marketed Class I or II medical device, or to a Class III medical device for which the FDA has not called for a PMA. The FDA may determine that a proposed device is not substantially equivalent to a legally marketed device or that additional information or data are needed before a substantial equivalence determination can be made. A request for additional data may require that clinical studies and/or non-clinical studies of the device's safety and effectiveness be performed.

In the United States, commercial distribution of a device for which a 510(k) notification is required can begin only after the FDA issues an order finding the device to be substantially equivalent to a previously cleared device. The FDA has recently been requiring a more rigorous demonstration of substantial equivalence than in the past. Even in cases where the FDA grants a 510(k) clearance, it can take the FDA between one and six months from the date of submission to grant a 510(k) clearance, but it may take longer.

A "not substantially equivalent" determination, or a request for additional information, could delay the market introduction of new products that fall into this category and could have a material adverse effect on our business, financial condition and results of operations. For any of our products that are cleared through the 510(k) process, modifications or enhancements that could significantly affect the safety or effectiveness of the device or that constitute a major change to the intended use of the device will require new 510(k) submissions.

We have obtained 510(k) clearances for all of our medical device products marketed within the United States that require 510(k) clearance. We have also modified aspects of our products since receiving regulatory clearance, and we have submitted 510(k)s for those modifications as required by FDA regulations. After a device receives a 510(k) clearance or a PMA, any modification that could significantly affect its safety or effectiveness, or that would constitute a major change in its intended use, will require a new clearance or approval. The FDA requires each manufacturer to make this determination initially, but the FDA can review any such decision and can disagree with a manufacturer's determination. If the FDA disagrees with our determination not to seek a new 510(k) clearance or PMA, the FDA may retroactively require us to seek 510(k) clearance or pre-market approval. The FDA could also require us to cease marketing and distribution and/or recall the modified device until a 510(k) clearance or a PMA approval is obtained. Also, in these circumstances, we may be subject to significant regulatory fines or penalties.

Any products manufactured or distributed by us pursuant to FDA clearances or approvals are subject to pervasive and continuing regulation by the FDA, including record keeping requirements and reporting of adverse experiences with the use of the device. Device manufacturers are required to register their establishments and list their devices with the FDA and certain state agencies, and are subject to periodic inspections by the FDA and certain state agencies. The FD&C Act requires devices to be manufactured to comply with applicable QSR regulations which impose certain procedural and documentation requirements upon us with respect to design, development, manufacturing and quality assurance activities. We are subject to unannounced inspections by the FDA and the Food and Drug Branch of the California Department of Public Health, to determine our compliance with the QSR and other regulations, and these inspections may include the manufacturing facilities of our subcontractors.

Labeling and promotion activities are subject to scrutiny by the FDA and in certain instances, by the Federal Trade Commission. The FDA actively enforces regulations prohibiting marketing of products for unapproved uses. We and our products are also subject to a variety of state laws and regulations in those states or localities where our products are or will be marketed. Any applicable state or local regulations may hinder our ability to market our products in those states or localities. Manufacturers are also subject to numerous federal, state and local laws relating to such matters as safe working conditions, manufacturing practices, environmental protection, fire hazard control and disposal of hazardous or potentially hazardous substances. We may be required to incur significant costs to comply with such laws and regulations now or in the future. Such laws or regulations may have a material adverse effect upon our ability to do business.

Export of our products is regulated by the FDA and subject to the FD&C Act, 21 U.S.C. §§321-397, and other statutes FDA administers, which greatly expanded the export of approved and unapproved United States medical devices. However, some foreign countries require manufacturers to provide a specific type of FDA export certificate (such as a Certificate to

Foreign Government or Certificate of Exportability) which requires the device manufacturer to certify to the FDA that the product has been granted pre-market clearance in the United States and that the manufacturing facilities appeared to be in compliance with QSR at the time of the last QSR inspection. The FDA will refuse to issue any export certificate if significant outstanding QSR violations exist.

We are also regulated under the Radiation Control provisions (originally enacted as the Radiation Control for Health and Safety Act of 1968) which are located in Sections 531 through 542 of the FD&C Act, which requires laser products to comply with performance standards, including design and operation requirements, and manufacturers to certify in product labeling and in reports to the FDA that their products comply with all such standards. The law also requires laser manufacturers to file new product and annual reports, maintain manufacturing, testing and sales records and report product defects. Various warning labels must be affixed and certain protective devices installed, depending on the class of the product.

The introduction of our products in foreign markets will also subject us to foreign regulatory clearances which may impose substantial additional costs and burdens. International sales of medical devices are subject to the regulatory requirements of each country. The regulatory review process varies from country to country. Many countries also impose product standards, packaging requirements, labeling requirements and import restrictions on devices. In addition, each country has its own tariff regulations, duties and tax requirements. The approval by the FDA and foreign government authorities is unpredictable and uncertain. The necessary approvals or clearances may not be granted on a timely basis, if at all. Delays in receipt of, or a failure to receive, such approvals or clearances, or the loss of any previously received approvals or clearances, could have a material adverse effect on our business, financial condition and results of operations. There are a number of major regulatory changes occurring in the regulation of medical devices in the European Union. The revision of the quality system regulation (ISO 13485:2016) has been released that substantially increased the requirements for a medical device quality system. The Medical Device Regulation (“MDR”) has replaced the medical device directives (93/42/EEC), and it substantially changed the way that medical devices are brought to market in the European Union and how they maintain compliance throughout the product’s life cycle. Additionally, the new revision 4 of the clinical evaluation report guidance document (MEDDEV 2.7.1) severely restricts the use of substantial equivalence for new products, resulting in the need for formal clinical trial data for many new products. These changes will increase the cost for compliance and for product development, and they lengthen product introduction cycles. Failure to comply with these changes can have an adverse effect on our ability to release new products in a timely manner.

In order to maintain a Canadian Medical Device License (“MDL”), which is needed to sell a medical device in Canada, the holder of the MDL (the “regulatory manufacturer”) must obtain an ISO 13485:2016 certificate through the Medical Device Single Audit Program (“MDSAP”). The MDSAP requirement is new to Canada, and manufacturers that received a MDL prior to adoption of this requirement are required to transition to the MDSAP. To address this Canadian medical device licensing requirement, Iridex transferred its MDLs to Salient Medical Solutions (“Salient”), Iridex’s distributor in Canada and an entity that is certified under MDSAP. Iridex continues to fabricate the devices as Salient’s contract manufacturer. Salient is now the regulatory manufacturer, and has the licenses necessary to import and sell Iridex’s products into Canada.

Changes in existing requirements or adoption of new requirements or policies by the FDA or other foreign and domestic regulatory authorities could adversely affect our ability to comply with regulatory requirements. Failure to comply with regulatory requirements could have a material adverse effect on our business, financial condition and results of operations. We may be required to incur significant costs to comply with laws and regulations in the future. These laws or regulations may have a material adverse effect upon our business, financial condition or results of operations.

Reimbursement

The cost of a significant portion of medical care in the United States is funded by government programs, health maintenance organizations and private insurance plans. Our ophthalmology products are typically purchased by doctors, clinics, hospitals and other users, which bill various third-party payers, such as government programs and private insurance plans, for the health care services provided to their patients. Government imposed limits on reimbursement of hospitals and other health care providers have significantly affected the spending budgets of doctors, clinics and hospitals to acquire new equipment, including our products. Under certain government insurance programs, a health care provider is reimbursed for a fixed sum for services rendered in treating a patient, regardless of the actual charge for such treatment. The Center for Medicare and Medicaid Services reimburses hospitals on a prospectively-determined fixed amount basis for the costs associated with an in-patient hospitalization based on the patient’s discharge diagnosis, regardless of the actual costs incurred by the hospital or physician in furnishing the care and regardless of the specific devices used in that procedure.

Private third-party reimbursement plans are also developing increasingly sophisticated methods of controlling health-care costs by imposing limitations on reimbursable procedures and the exploration of more cost-effective methods of delivering health care. In general, these government and private measures have caused health care providers, including our customers, to be more selective in the purchase of medical products. In addition, changes in government regulation or in

private third-party payers' policies may limit or eliminate reimbursement for procedures employing our products, which could have a material adverse effect on our business, results of operations and financial condition.

Doctors, clinics, hospitals and other users of our products may not obtain adequate reimbursement for use of our products from third-party payers. While we believe that the laser procedures using our products have generally been reimbursed, payers may deny coverage and reimbursement for our products if they determine that the device was not reasonable and necessary for the purpose used, was investigational or was not cost-effective.

Backlog and Seasonality

We generally do not maintain a material level of backlog. As a result, we do not believe that our backlog at any particular time is indicative of future sales levels. Our quarterly results have been, and are expected to continue to be, affected by seasonal factors. For example, our European sales during the third quarter are generally lower due to many businesses being closed for the summer vacation season.

Human Capital

Our employees are our human capital and they are our greatest strength and most valuable resource. As of January 1, 2022, we had a total of 119 full-time equivalent employees engaged in our ongoing operations, including 51 in operations (including manufacturing, quality, logistics and service), 39 in sales and marketing which does not include four consultants and two independent sales representatives, 18 in R&D and 11 in finance and administration. We also employ, from time to time, a number of temporary and part-time employees as well as consultants on a contract basis. As of January 1, 2022, we had 51 such persons serving in such roles.

Our human capital resources objectives include identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants. We continuously invest in our workforce by seeking to create a diverse, inclusive, and safe work environment where our employees can learn, innovate, and deliver their best. We are committed to being inclusive to enable our workforce and customers to succeed.

Our employees are not represented by a collective bargaining organization, and we have never experienced a work stoppage or strike. We consider our employee relations to be good.

Available Information

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to reports pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available, free of charge, through the U.S. Securities and Exchange Commission's ("SEC") website. These periodic reports and amendments are also available, free of charge, on our website, as soon as reasonably practicable after such reports are electronically filed with the SEC.

Investors and others should note that we announce material financial information to our investors using SEC filings, press releases, our investor relations website, public conference calls and webcasts. We use these channels as well as social media to communicate with investors, customers and the public about our company, our products and other issues. It is possible that the information we post on social media channels could be deemed to be material information. We encourage investors, our customers, and others interested in Iridex to review the information we post on our Facebook page (www.facebook.com/Iridex) and Twitter feed (https://twitter.com/Iridex). Any information on, or that can be accessed through, our website and social media channels is not part of this report.

Item 1A. Risk Factors

Risk Factor Summary

Our business operations are subject to numerous risks, factors and uncertainties outside of our control that could cause our actual results to be harmed, including risks regarding the following:

General economic factors

- the COVID-19 pandemic and responsive measures;
- the success of our partnership with Topcon: and
- natural disasters, economic downturns, public health crises or political crises.

Operational factors

- our relationship with our strategic partner and main distributor, Topcon;
- quality control and production issues;
- the complexity of our laser systems;
- defects in our laser systems;
- costs, sales volumes, results of operations, and revenues;
- direct and independent sales forces and a network of international distributors to sell our products;
- our growth;
- dependence on international sales;
- new products and applications and improving existing products;
- fluctuations in our sales and operating results;
- the ophthalmology market;
- competition in our industry;
- the collaborative relationships used to enhance products and applications;
- the loss of key personnel;
- meeting product demand;
- dependence on sole source and limited source suppliers;
- disruptions to our information technology system and breaches of data security;
- maintaining relationships with health care providers;
- the misuse of our products;
- our reputation and brand;
- the inability of our customers to obtain credit or material increases in interest rates; and
- recalls of our products.

Regulatory and legal factors

- healthcare reform measures;
- third-party coverage and reimbursement policies;
- compliance with healthcare laws;
- our compliance with potential governmental, regulatory and other legal proceedings relative to advertising, promotion and marketing;
- patents and proprietary rights related to our intellectual property;
- compliance with government regulations, including the FDA’s quality system regulation and laser performance standards;
- regulatory approval for clinical trials;

- compliance with product liability claims;
- developments in trade policies;
- tax laws;
- federal, state and foreign laws, including changes to those laws; and
- environmental requirements.

Financing and transactional risks

- our ability to repay indebtedness;
- efforts to acquire additional companies or product lines;
- divestitures of our businesses or product lines;
- raising additional capital; and
- provisions in our charter documents, Delaware law and contractual provisions that could delay or prevent an acquisition or sale of our company.

Governance risks and Risks related to ownership of our common stock

- the volatility of the trading price of our common stock;
- our intention not to pay dividends for the foreseeable future;
- the publication of research about us by analysts;
- the concentration of ownership of our common stock; and
- our ability to maintain an effective system of internal control over financial reporting.

Factors That May Affect Future Results

In addition to the other information contained in this Annual Report Form 10-K, we have identified the following risks and uncertainties that may have a material adverse effect on our business, common stock price, financial condition or results of operations. You should carefully consider the risks described below before making an investment decision.

Risks Relating to our Business

The effects of the COVID-19 pandemic have disrupted, and may continue to significantly disrupt, our operations, including our ability to manufacture and supply products and perform research and development activities, our customers' usage of our products as demand declines in elective surgeries in response to COVID-19, all of which have had and expected to continue to have a material and adverse effect on our business, future revenues and financial condition. We are unable to predict the extent to which the pandemic and related impacts will continue to adversely impact our business operations, financial performance, results of operations, financial position and the achievement of our strategic objectives.

Our business, results of operation and financial performance have been negatively impacted by the COVID-19 pandemic and related public health responses, such as social distancing protocols, and travel restrictions in countries and regions in which we have operations or manufacturing partners. Due to these impacts and measures, we have experienced and may continue to experience significant and unpredictable interruptions in the supply of raw materials, components and sub-assemblies necessary to manufacture and assemble our products and reductions in the demand for our products as healthcare customers continue to divert medical resources and priorities towards the treatment of COVID-19. In addition, our customers may delay, cancel or redirect planned capital expenditures in order to focus resources on COVID-19 or in response to economic disruption related to COVID-19. For example, during the fiscal year ended January 2, 2021, we experienced significant decline in treatment and procedure volume worldwide, as healthcare systems diverted resources to meet the increasing demands of managing COVID-19. In the near term, we expect COVID-19 will continue to negatively impact the use of our products and the number of ophthalmic treatments and procedures performed. If the volume of elective procedures continues to remain lower than normal, our results of operations and financial condition will continue to be adversely affected.

As a result of the COVID-19 outbreak around the world, we have adopted several measures including allowing employees to work from home, slowing our manufacturing operations, and restricting non-critical business travel by our employees. The COVID-19 pandemic has caused disruption and delays in our ability to operate and manufacture, test and assemble products in our internal facilities, particularly in our Mountain View, California facility, and has limited our ability to continue certain research and development activities which could materially and adversely affect our ability to develop new products and technologies on the timelines we previously anticipated.

The COVID-19 pandemic has created economic uncertainty and volatility in the financial markets around the world, resulting in an economic downturn that has affected and will likely continue to affect demand for our products and impact our results of operations. As a result, this may lead to a period of regional, national, and global economic slowdown or regional, national, or global recessions that would curtail or delay spending by hospitals and affect demand for our products as well as increase the risk of customer defaults or delays in payments. Our customers may terminate or amend their agreements for the purchase, lease, or service of our products due to bankruptcy, lack of liquidity, lack of funding, operational failures, or other reason. The ultimate impact of the COVID-19 pandemic on our operations and financial performance depends on many factors that are not within our control, including, but not limited, to: the recommendations by medical authorities on whether hospitals should and may perform elective surgical procedures; hospitals abilities and willingness to devote resources to elective surgical procedures; governmental, business and individuals' actions that have been and continue to be taken in response to the pandemic (including restrictions on travel and transport and workforce pressures); the impact of the pandemic and actions taken in response on global and regional economies, travel, and economic activity; the availability of federal, state, local or non-U.S. funding programs; general economic uncertainty in key global markets and financial market volatility; global economic conditions and levels of economic growth; and the pace of recovery when the COVID-19 pandemic subsides. Although the magnitude of the impact of COVID-19 on our business operations remains uncertain and difficult to predict, and this remains a highly dynamic situation, we have experienced and will continue to experience in subsequent periods, disruptions to our business that will likely continue to adversely impact our business, financial condition and results of operations.

We may not be successful in our strategic partnership with Topcon and the relationship may divert resources away from existing operations or expose us to liabilities, which could adversely affect our business, results of operations and financial condition.

On March 2, 2021, we entered into a series of strategic transactions with Topcon, Topcon America Corporation (the "Investor") and Topcon Medical Laser Systems, Inc., a subsidiary of Topcon ("TMLS"), which included an asset purchase agreement with the TMLS, pursuant to which we acquired substantially all the assets (except for cash and cash equivalents) of the TMLS, including rights to the PASCAL product (as defined in Note 3 of the Notes to Consolidated Financial Statements) (the "Asset Purchase Agreement"), (ii) Topcon and our company entered into a distribution agreement dated March 2, 2021, pursuant to which we granted Topcon the exclusive right to distribute our retina and glaucoma products in certain geographies outside the United States (the "Distribution Agreement"), (iii) pursuant to an investment agreement dated March 2, 2021 (the "Investment Agreement") the Investor acquired 1,618,122 shares of the our Common Stock for an aggregate purchase price of $10 million (the "Shares").

Pursuant to the Asset Purchase Agreement, the transferred assets include substantially all of the TMLS' assets including the rights to the PASCAL product (the "Transferred Assets"). We assumed only those liabilities arising after the closing in connection with the Transferred Assets. In the Asset Purchase Agreement, our company and the TMLS made certain customary representations and warranties and agreed to certain customary covenants. The Agreement provides that our company and the TMLS will each indemnify the other for losses arising from certain breaches of the Agreement and for certain other liabilities subject to customary caps and deductibles. If there are claims under the indemnification provisions for which we are liable we will need to use some or all our cash to settle those claims.

Pursuant to the Distribution Agreement, we appointed Topcon as the exclusive distributor of our glaucoma and retina products, including PASCAL product, in certain countries outside of the United States. Topcon agreed to use commercially reasonable efforts to commercialize our products in each region throughout the territory, including achieving certain sales baselines by product category and region. If Topcon fails to achieve the baselines in a region, we will have the right to, subject to payment of a fee, terminate Topcon's appointment in such region. The Distribution Agreement and Topcon's appointment will, unless terminated earlier, continue on a country-by-country basis for a period of ten (10) years from the date exclusivity is granted. The Distribution Agreement includes customary termination rights and effects of termination, including a termination for convenience right in favor of Topcon and, subject to payment of a fee, a termination right in our favor upon a change of control of our company.

As a result of the Distribution Agreement, we terminated our relationships with our prior distributors in certain geographies and we are using Topcon as our exclusive distributor. If Topcon is unable to generate as much revenue under the Distribution Agreement as we received from our prior distributors, our business, results of operations and financial condition could be adversely affected. If there are claims under the indemnification provisions of the Distribution Agreement for which we are liable, we will need to use some or all our cash to settle those claims or make payments to Topcon pursuant to the terms of the Distribution Agreement.

We are investing a substantial amount of time, resources and efforts in connection with our relationship with Topcon, including commercializing our products in certain geographies and working to achieve certain sales baselines by product category and region. All of these actions divert resources away from our other initiatives and operations particularly with respect to product sales in the United States. These efforts may not result in the anticipated additional products, efficiencies or revenues for our company, which could adversely affect our business, operating results and financial condition as a result.

We face quality control and other production issues that could materially and adversely impact our sales and financial results and the acceptance of our products.

The manufacture of our infrared and visible laser consoles and related delivery devices is a highly complex and precise process. We may experience manufacturing difficulties, quality control issues or assembly constraints.

If our sales increase substantially, we may need to increase our production capacity and may not be able to do so in a timely, effective or cost-efficient manner. We may not be able to manufacture sufficient quantities of our products, which may require that we qualify other manufacturers for our products. Furthermore, we may experience delays, disruptions, capacity constraints or quality control problems in our manufacturing operations.

In the past several years, we have experienced supply chain, production and training issues as we have expanded our product lines and sales volumes, and may experience similar issues in the future as we continue to grow our business. These issues have caused, and may in the future cause, us to reduce or delay the shipment of our products and incur costs to service or replace products already shipped to customers. We have also incurred, and may in the future incur, additional costs to rectify or prevent similar issues in the future. Our efforts to address these supply chain, production and training issues may not be successful, and if we are unable to address these issues in a timely and cost-effective manner, product shipments to our customers could be delayed, our sales levels may suffer and manufacturing and operational costs may increase, any of which would negatively impact our business, results of operations and financial condition.

Some of our laser systems are complex in design and may contain defects that are not detected until deployed by our customers, which could increase our costs and reduce our revenues.

Laser systems are inherently complex in design and require regular maintenance. The manufacture of our lasers, laser products and systems involves a highly complex and precise process. As a result of the technical complexity of our products, changes in our or our suppliers' manufacturing processes or the inadvertent use of defective materials by us or our suppliers could result in a material adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. To the extent that we do not achieve such yields or product reliability, our business, operating results, financial condition and customer relationships would be adversely affected. We provide warranties on certain of our product sales, and allowances for estimated warranty costs are recorded during the period of sale. The determination of such allowances requires us to make estimates of failure rates and expected costs to repair or replace the products under warranty. We currently establish warranty reserves based on historical warranty costs. If actual return rates and/or repair and replacement costs differ significantly from our estimates, adjustments to recognize additional cost of revenues may be required in future periods.

Our customers may discover defects in our products after the products have been fully deployed and operated under peak stress conditions. In addition, some of our products are combined with products from other vendors, which may contain defects. As a result, should problems occur, it may be difficult to identify the source of the problem. If we are unable to identify and fix defects or other problems, we could experience, among other things:

- loss of customers;
- increased costs of product returns and warranty expenses;
- damage to our brand reputation;
- failure to attract new customers or achieve market acceptance;
- diversion of development and engineering resources; and
- legal actions by our customers.

The occurrence of any one or more of the foregoing factors could seriously harm our business, financial condition and results of operations.

We rely on our direct and independent sales forces and international distributors to sell our products and if we lose our sales force or distributor relationships, it could harm our business.

Our ability to sell our products and generate revenues depends upon our direct and independent sales forces within the United States, direct sales force in Germany and relationships with independent international distributors. Currently our direct and independent sales forces within the United States consist of approximately 23 employees and two independent representative, respectively and our direct sales force in Germany consists of one employee. Our international independent distributors are managed by a team of five people. We generally grant our distributors exclusive territories for the sale of our

products in specified countries and regions. The amount and timing of resources dedicated by our distributors to the sales of our products is not within our control. Our international sales are largely dependent on the efforts of these third parties. If any distributor breaches the terms of its distribution agreement with us or fails to generate sales of our products, we may be forced to replace the distributor and our ability to sell our products into that exclusive sales territory could be adversely affected.

We do not have any long-term employment contracts with the members of our direct sales force. We may be unable to replace our direct sales force personnel with individuals of equivalent technical expertise and qualifications, which may harm our revenues and our ability to maintain market share. Similarly, our independent contractor and distributor agreements are generally terminable at will by either party and independent contractors and distributors may terminate their relationships with us, which would affect our sales and results of operations. Any loss of the members of our existing direct or indirect sales organizations, or any failure to execute on our plans to further develop our sales function, could have an adverse impact on our business, results of operations and financial condition. Additionally, our sales forces' operations have been disrupted by the COVID-19 pandemic, as travel is restricted and some services are being performed from home, all of which could have an impact on our ability to sell and distribute our products.

Growth in our sales and marketing organization may create operational challenges without immediately offsetting benefits.

We have increased and continue to increase our internal sales and marketing functions. This growth may place a significant strain on our management, operating and financial systems and our sales, marketing, training and administrative resources. As a result of our growth, our operating costs may escalate even faster than planned, and some of our internal systems may need to be enhanced or replaced. For example, if we are unable to provide adequate training for our expanding sales force, our ability to fully utilize new sales and marketing resources may be adversely impacted, we could suffer reputational harm and our ability to maintain our installed base of customers may be negatively impacted. If we cannot effectively manage our expanding operations and our costs, we may not be able to grow effectively or we may grow at a slower pace, and our business could be adversely affected.

It can take six months or longer before our internal sales representatives are fully trained and productive in selling our product to prospective clients. This ramp up period presents a number of operational challenges as the cost of recruiting, hiring and carrying new sales representatives cannot be offset by the revenue such new sales representatives produce until after they complete their ramp up periods. If we cannot reliably develop our sales representatives to a productive level, or if we lose productive representatives in whom we have heavily invested, our future growth rates and revenue may suffer.

We depend on international sales for a significant portion of our operating results.

We derive, and expect to continue to derive, a large portion of our revenues from international sales. For the fiscal year 2021, our international sales were $28.3 million, or 52.6% of total revenues. We anticipate that international sales will continue to account for a significant portion of our revenues in the foreseeable future. All of our international revenues and costs for the fiscal year 2021 have been denominated in U.S. dollars except for sales transacted through our German subsidiary. As a result, an increase in the value of the U.S. dollar relative to foreign currencies makes our U.S. dollar-denominated products more expensive and thus less competitive in foreign markets and may negatively affect our reported revenue in any particular reporting period. Our international operations and sales are subject to a number of risks and potential costs, including:

- the impact of the COVID-19 pandemic on the global economy and financial markets;
- fluctuations in foreign currency exchange rates;
- product and production issues;
- performance of our international channel of distributors;
- longer accounts receivable collection periods;
- impact of recessions in global economies and availability of credit;
- political and economic instability;
- change in international regulatory agreements and requirements;
- trade sanctions and embargoes;
- impact of international conflicts, terrorist and military activity, civil unrest;
- foreign certification requirements, including continued ability to use the CE mark in Europe, and other local regulatory requirements;

- differing local product preferences and product requirements;
- cultural differences;
- changes in foreign medical reimbursement and coverage policies and programs;
- reduced or limited protections of intellectual property rights in jurisdictions outside the United States;
- potentially adverse tax consequences, such as those related to changes in tax laws or tax rates or their interpretations;
- protectionist, adverse and changing foreign governmental laws and regulations;
- greater risk of our employees failing to comply with both U.S. and foreign laws, including anti-trust regulations, the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act of 2010 and any trade regulations designed to ensure fair trade practices; and
- compliance costs and risks of non-compliance with multiple regulatory regimes governing the production, marketing, sale and use of our products.

Any one or more of these factors stated above could have a material adverse effect on our business, financial condition or results of operations.

As we expand our existing international operations, we may encounter new risks in addition to the above factors. For example, as we focus on building our international sales and distribution networks in new geographic regions, we must continue to develop relationships with qualified local distributors and trading companies. If we are not successful in developing these relationships, we may not be able to grow sales in these geographic regions. These or other similar risks could adversely affect our revenues, profitability and the price of our common stock.

If we fail to develop and successfully introduce new products and applications or fail to improve our existing products, our business prospects and operating results may suffer.

Our ability to generate incremental revenue growth will depend, in part, on the successful outcome of research and development activities, which may include clinical trials that lead to the development of new products and new applications using our products. Our research and development process is expensive, prolonged, and entails considerable uncertainty. Due to the complexities and uncertainties associated with ophthalmic research and development, products we are currently developing may not complete the development process or obtain the regulatory approvals required to market such products successfully. In addition, our research and development process has been delayed due to the impact of COVID-19, and should COVID-19 economic restrictions worsen, it could delay and disrupt our research and development processes even further.

Successful commercialization of new products and new applications will require that we effectively transfer production processes from research and development to manufacturing and effectively coordinate with our suppliers. In addition, we must successfully sell and achieve market acceptance of new products and applications and enhanced versions of existing products. The extent of, and rate at which, market acceptance and penetration are achieved by future products is a function of many variables, which include, among other things, price, safety, efficacy, reliability, marketing and sales efforts, the development of new applications for these products, the availability of third-party reimbursement of procedures using our new products, the existence of competing products and general economic conditions affecting purchasing patterns.

Our ability to market and sell new products is subject to government regulation, including approval or clearance by the FDA and foreign government agencies. Any failure in our ability to successfully develop and introduce new products or enhanced versions of existing products and achieve market acceptance of new products and new applications could have a material adverse effect on our operating results and would cause our net revenues to decline.

We are exposed to risks associated with worldwide economic slowdowns and related uncertainties.

We are subject to macro-economic fluctuations in the U.S. and worldwide economy including inflationary pressures that may cause the cost of manufacturing our products or servicing our products to increase. Concerns about consumer and investor confidence, volatile corporate profits and reduced capital spending, international conflicts, terrorist and military activity, civil unrest and pandemic illness could reduce customer orders or cause customer order cancellations. For example, the COVID-19 pandemic has and may continue to cause adverse impacts on global economic activity which could negatively impact our business. In addition, political and social turmoil related to international conflicts, such as that occurring in Russia and Ukraine, and terrorist acts may put further pressure on economic conditions in the United States and abroad.

Weak economic conditions and declines in consumer spending and consumption may harm our operating results. Purchases of our products are often discretionary. During uncertain economic times, customers or potential customers may delay, reduce or forego their purchases of our products and services, which may impact our business in a number of ways, including lower prices for our products and services and reducing or delaying sales. There could be a number of follow-on

effects from economic uncertainty on our business, including insolvency of key suppliers resulting in product delays, delays in customer payments of outstanding accounts receivable and/or customer insolvencies, counterparty failures negatively impacting our operations, and increasing expense or inability to obtain future financing.

If economic uncertainty persisted, or if the economy entered a prolonged period of decelerating growth, our results of operations may be harmed.

Our operating results may fluctuate from quarter to quarter and year to year.

Our sales and operating results may vary significantly from quarter to quarter and from year to year in the future. Our operating results are affected by a number of factors, many of which are beyond our control. Factors contributing to these fluctuations include the following:

- general economic uncertainties, inflationary pressures and political concerns, including the impact of COVID-19 and the war between Russia and Ukraine;
- changes in the prices at which we can sell our products, including the impact of changes in exchange rates;
- introduction of new products, product enhancements and new applications by our competitors, including new drugs, entry of new competitors into our markets, pricing pressures and other competitive factors;
- any delays or reductions in product shipments, or product recalls, resulting from manufacturing, distribution or other operational issues;
- the timing of the introduction and market acceptance of new products, product enhancements and new applications;
- changes in demand for our existing line of ophthalmology products;
- the cost and availability of components and subassemblies, including the willingness and ability of our sole or limited source suppliers to timely deliver components at the times and prices that we have planned;
- our ability to maintain sales volumes at a level sufficient to cover fixed manufacturing and operating costs;
- fluctuations in our product mix within ophthalmology products and foreign and domestic sales;
- the effect of regulatory approvals and changes in domestic and foreign regulatory requirements;
- our long and highly variable sales cycle;
- changes in customers' or potential customers' budgets as a result of, among other things, reimbursement policies of government programs and private insurers for treatments that use our products;
- variances in shipment volumes as a result of product, supply chain due to global constraints or other factors and training issues; and
- increased product innovation costs.

In addition to these factors, our quarterly results have been, and are expected to continue to be, affected by seasonal factors. For example, our European sales during the third quarter are generally lower due to many businesses being closed for the summer vacation season.

Our expense levels are based, in part, on expected future sales. If sales levels in a particular quarter do not meet expectations, we may be unable to adjust operating expenses quickly enough to compensate for the shortfall of sales, and our results of operations may be adversely affected. In addition, we have historically made a significant portion of each quarter's product shipments near the end of the quarter. If that pattern continues, any delays in shipment of products could have a material adverse effect on results of operations for such quarters. Due to these and other factors, we believe that quarter to quarter and year to year comparisons of our past operating results may not be meaningful. You should not rely on our results for any quarter or year as an indication of our future performance. Our operating results in future quarters and years may be below expectations, which would likely cause the price of our common stock to fall.

We rely on continued market acceptance of our existing products and any decline in sales of our existing products would adversely affect our business and results of operations.

We currently market visible and infrared medical laser systems and delivery devices to the ophthalmology market. We believe that continued and increased sales, if any, of these medical laser systems is dependent upon a number of factors including the following:

- the impact of COVID-19 pandemic on timing of ophthalmic treatment procedures;
- acceptance of product performance, features, ease of use, scalability and durability, including with respect to our MicroPulse laser photocoagulation systems and our PASCAL product;

- recommendations and opinions by ophthalmologists, other clinicians, and their associated opinion leaders;
- marketing and clinical study outcomes;
- price of our products and prices of competing products and technologies, particularly in light of the current macro-economic environment where healthcare systems and healthcare operators are becoming increasingly price sensitive;
- availability of competing products, technologies and alternative treatments; and
- level of reimbursement for treatments administered with our products.

In addition, we derive a meaningful portion of our sales in the form of recurring revenues from selling consumable instrumentation, including our probe for the Cyclo G6 Laser and EndoProbe devices. Our ability to increase recurring revenues from the sale of consumable products will depend primarily upon the features of our current products and product innovation, the quality of, ease of use and prices of our products, including the relationship to prices of competing products. The level of our service revenues will depend on the quality of service we provide and the responsiveness and the willingness of our customers to use our products and services rather than purchase competing products or services. Any significant decline in market acceptance of our products or services or our revenues associated therewith may have a material adverse effect on our business, results of operations and financial condition.

We face strong competition in our markets and expect the level of competition to grow in the foreseeable future.

Competition in the market for laser systems and delivery devices used for ophthalmic treatment procedures is intense and is expected to increase. This market is also characterized by technological innovation and change. We compete by providing features and services that are valued by our customers such as: enhanced product performance and clinical outcomes, ease of use, durability, versatility, customer training services and rapid repair of equipment.

Our principal ophthalmic laser competitors are Alcon, Inc., Novartis AG, Bausch Health Companies Inc., Carl Zeiss Meditec AG, Ellex Medical Lasers, Ltd., Lumenis Ltd., Nidek Co. Ltd., Quantel Medical SA, OD-OS GmbH and A.R.C. Laser GmbH. We also compete with alternative glaucoma surgical device companies such as Alcon, Inc., Allergan, Inc., Glaukos Corporation, New World Medical, Inc. and Ivantis, Inc. Pharmaceuticals represent alternative treatments to our laser procedures. Some of our principal pharmaceutical competitors are Alcon, Inc., Allergan, Inc., Astellas Pharma Inc., Pfizer Inc., Regeneron Pharmaceuticals, Inc., Roche Holdings Ltd. (Genentech) and Bausch Health Companies Inc. Some of our competitors have substantially greater financial, engineering, product development, manufacturing, marketing and technical resources than we do. Some companies also have greater name recognition than us and long-standing customer relationships. In addition, other medical device companies, academic and research institutions, or others, may develop new technologies or therapies, including medical devices, surgical procedures or pharmacological treatments and obtain regulatory approval for products utilizing such techniques that are more effective in treating the conditions targeted by us, or are less expensive than our current or future products. Our technologies and products could be rendered obsolete by such developments. Any such developments could have a material adverse effect on our business, financial condition and results of operations.

Our operating results may be adversely affected by uncertainty regarding healthcare reform measures and changes in third-party coverage and reimbursement policies.

Our products are typically purchased by doctors, clinics, hospitals and other users, which bill various third-party payers, such as governmental programs and private insurance plans, for the health care services provided to their patients. Changes in government legislation or regulation or in private third-party payers' policies toward reimbursement for procedures employing our products may prohibit adequate reimbursement. There have been a number of legislative and regulatory proposals to change the healthcare system, reduce the costs of healthcare and change medical reimbursement policies. Doctors, clinics, hospitals and other users of our products may decline to purchase our products to the extent there is uncertainty regarding reimbursement of medical procedures using our products and any healthcare reform measures. Further proposed legislation, regulation and policy changes affecting third-party reimbursement are likely. Among other things, Congress has in the past proposed changes to and the repeal of the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act of 2010, collectively, the "Affordable Care Act," and the current U.S. presidential administration has announced certain policy changes that could impact the availability of benefits under the Affordable Care Act. For example, tax reform legislation enacted at the end of 2017 eliminated the tax penalty for individuals who did not maintain sufficient health insurance coverage beginning in 2019 (the "individual mandate"). We anticipate continued Congressional interest in modifying provisions of the Affordable Care Act. At this time, it remains unclear whether there will be any changes made to or any repeal of the Affordable Care Act, with respect to certain of its provisions or in its entirety or related administrative policies. Various healthcare reform proposals have also emerged at the state level.

We are unable to predict what legislation or regulation, if any, relating to the health care industry or third-party coverage and reimbursement may be enacted in the future at the state or federal level, or what effect such legislation or

regulation may have on us. Furthermore, existing legislation and regulation related to the health care industry and third-party coverage reimbursement, including the Affordable Care Act, has been subject to judicial challenge, and may be subject to similar challenges from time to time in the future (such as the *California v. Texas* case). Denial of coverage and reimbursement of our products, or the revocation or changes to coverage and reimbursement policies, could have a material adverse effect on our business, results of operations and financial condition.

Third-party payers are increasingly scrutinizing and continue to challenge the coverage of new products and the level of reimbursement for covered products. Doctors, clinics, hospitals and other users of our products may not obtain adequate reimbursement for use of our products from third-party payers. While we believe that the laser procedures using our products have generally been reimbursed, payers may deny coverage and reimbursement for our products if they determine that the device was not reasonable and necessary for the purpose used, was investigational or was not cost-effective.

If we fail to comply with healthcare laws, we could face substantial penalties and financial exposure, and our business, operations and financial condition could be adversely affected.

While we do not bill directly to Medicare, Medicaid or other third-party payors, because payment is in many cases available for our products from such payors, many healthcare laws place limitations and requirements on the manner in which we conduct our business (including our sales and promotional activities and interactions with healthcare professionals and facilities) and could result in liability and exposure for us. The laws that may affect our ability to operate include (i) the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal healthcare programs such as Medicare or Medicaid, (ii) federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payors that are false or fraudulent, and which may apply to entities like us if we provide coding and billing advice to customers, or under theories of "implied certification" where the government and qui tam relators may allege that device companies are liable where a product that was paid for by the government in whole or in part was promoted "off-label," lacked necessary clearance or approval, or failed to comply with good manufacturing practices or other laws; (iii) transparency laws and related reporting and disclosures requirements such as the federal Sunshine Act, now known as Open Payments; and/or (iv) state law equivalents of each of the above federal laws, including, without limitation anti-kickback and false claims laws which may apply to items or services reimbursed by any third-party payor, including commercial insurers, many of which differ from their federal counterparts in significant ways, thus complicating compliance efforts.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, exclusion from participation in government healthcare programs, damages, fines and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment or restructuring of our operations could adversely affect our ability to operate our business and our financial results. The risk of our being found in violation of these laws is increased by the fact that their provisions are open to a variety of evolving interpretations and enforcement discretion. Compliance with Open Payments, commonly known as the Sunshine Act, has presented a number of challenges to companies such as ours, in terms of interpretation of the law and its implementation. Under the Sunshine Act, Centers for Medicare & Medicaid Services ("CMS") has the potential to impose penalties of up to $1.15 million per year for violations, depending on the circumstances, although enforcement has been negligible to date. Payments reported under the Sunshine Act also have the potential to draw scrutiny on payments to and relationships with physicians, which may have implications under the Anti-Kickback Statute and other healthcare laws. The risk that we may be found in violation of these laws may be increased by the fact that we do not have a formal healthcare compliance program in place. Further, while safe harbors may in some instances be available and utilized by companies to reduce risks associated with the Anti-Kickback Statute and certain other healthcare laws, we have not necessarily utilized such safe harbors nor fully followed all elements required to claim the benefit of such safe harbors in all possible instances. Any action against us for violation of these laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

We depend on collaborative relationships to develop, introduce and market new products, product enhancements and new applications.

We depend on both clinical and commercial collaborative relationships. We have entered into collaborative relationships with academic medical centers and physicians in connection with the research and innovation and clinical testing of our products. Commercially, we currently have a distribution and licensing agreement with Alcon for our GreenTip SoftTip Cannula. Sales of and royalties from the GreenTip SoftTip Cannula are dependent upon the sales performance of Alcon, which depends on their efforts and is beyond our control. The failure to obtain any additional future clinical or commercial collaborations and the resulting failure or success of such collaboration relationships could have a material adverse effect on our ability to introduce new products or applications and therefore could have a material adverse effect on our business, results of operations and financial condition.

If we cannot increase our sales volumes, reduce our costs or introduce higher margin products to offset potential reductions in the average unit price of our products, our operating results may suffer.

The average unit price of our products may decrease in the future in response to changes in product mix, competitive pricing pressures, new product introductions by our competitors or other factors. If we are unable to offset the anticipated decrease in our average selling prices by increasing our sales volumes or through new product introductions, our net revenues will decline. In addition, to maintain our gross margins we must continue to reduce the manufacturing cost of our products. If we cannot maintain our gross margins our business could be seriously harmed, particularly if the average selling price of our products decreases significantly without a corresponding increase in sales.

Our promotional practices are subject to extensive government scrutiny. We may be subject to governmental, regulatory and other legal proceedings relative to advertising, promotion and marketing that could have a significant negative effect on our business.

We are subject to governmental oversight and associated civil and criminal enforcement relating to drug and medical device advertising, promotion, and marketing, and such enforcement is evolving and intensifying. In the United States, we are subject to potential enforcement from the FDA, the U.S. Federal Trade Commission, the Department of Justice, the CMS, other divisions of the Department of Health and Human Services and state and local governments. Other parties, including private plaintiffs, also are commonly bringing suit against pharmaceutical and medical device companies, alleging off-label marketing and other violations. We may be subject to liability based on the actions of individual employees and contractors carrying out activities on our behalf, including sales representatives who may interact with healthcare professionals.

If we fail to manage growth effectively, our business could be disrupted which could harm our operating results.

We have experienced and may in the future experience growth in our business, both organically and through the acquisition of businesses and products. We have made and expect to continue to make significant investments to enable our future growth through, among other things, new product innovation and clinical trials for new applications and products. We must also be prepared to expand our work force and to train, motivate and manage additional employees as the need for additional personnel arises. Our personnel, systems, procedures and controls may not be adequate to support our future operations. Any failure to effectively manage future growth could have a material adverse effect on our business, results of operations and financial condition.

We rely on patents and proprietary rights to protect our intellectual property and business.

Our success and ability to compete is dependent, in part, upon our proprietary information. We rely on a combination of patents, trade secrets, copyright and trademark laws, nondisclosure and other contractual agreements and technical measures to protect our intellectual property rights. We file patent applications to protect technology, inventions and improvements that are significant to the development of our business. As of January 1, 2022, our patent portfolio includes 57 active United States patents and 95 active foreign patents on the technologies related to our products and processes. In addition, as of January 2, 2021, we have 11 patent applications pending in the United States and 24 foreign patent applications pending. Our patent applications may not be approved. Any patents granted now or in the future may offer only limited protection against potential infringement and development by our competitors of competing products. Moreover, our competitors, many of which have substantial resources and have made substantial investments in competing technologies, may seek to apply for and obtain patents that will prevent, limit or interfere with our ability to make, use or sell our products either in the United States or in international markets. Patents have a limited lifetime and once a patent expires competition may increase.

In addition to patents, we rely on trade secrets and proprietary know-how which we seek to protect, in part, through proprietary information agreements with employees, consultants and other parties. Our proprietary information agreements with our employees and consultants contain industry standard provisions requiring such individuals to assign to us, without additional consideration, any inventions conceived or reduced to practice by them while employed or retained by us, subject to customary exceptions. Proprietary information agreements with employees, consultants and others may be breached, and we may not have adequate remedies for any breach. Also, our trade secrets may become known to or independently developed by competitors.

The laser and medical device industry is characterized by frequent litigation regarding patent and other intellectual property rights. Companies in the medical device industry have employed intellectual property litigation to gain a competitive advantage.

Numerous patents are held by others, including academic institutions and our competitors. Patent applications filed in the United States generally will be published eighteen months after the filing date. However, since patent applications continue to be maintained in secrecy for at least some period of time, both within the United States and internationally, we cannot provide assurance that our technology does not infringe any patents or patent applications held by third parties. We have, from time to time, been notified of, or have otherwise been made aware of, claims that we may be infringing upon patents or other proprietary intellectual property owned by others. If it appears necessary or desirable, we may seek licenses under such patents or proprietary intellectual property. Although patent holders commonly offer such licenses, licenses under such patents or intellectual property may not be offered or the terms of any offered licenses may not be reasonable.

Any claims, with or without merit, and regardless of whether we are successful on the merits, would be time-consuming, result in costly litigation and diversion of technical and management personnel, cause shipment delays or require us to develop non-infringing technology or to enter into royalty or licensing agreements. An adverse determination in a judicial or administrative proceeding and failure to obtain necessary licenses or develop alternate technologies could prevent us from manufacturing and selling our products, which would have a material adverse effect on our business, results of operations and financial condition.

If we lose key personnel or fail to integrate replacement personnel successfully, our ability to manage our business could be impaired.

Our future success depends upon the continued service of our key management, technical, sales, and other critical personnel. Our officers and other key personnel are employees-at-will, and we cannot provide assurance that we will be able to retain them. Key personnel have left our company in the past, and there likely will be additional departures of key personnel from time to time in the future. The loss of any key employee could result in significant disruptions to our operations, including adversely affecting the timeliness of product releases, the successful implementation and completion of company initiatives, and the results of our operations. Competition for these individuals is intense, and we may not be able to attract, assimilate or retain highly qualified personnel. Competition for qualified personnel in our industry and the San Francisco Bay Area, as well as other geographic markets in which we recruit, is intense and characterized by increasing salaries, which may increase our operating expenses or hinder our ability to recruit qualified candidates. In addition, the integration of replacement personnel could be time consuming, may cause additional disruptions to our operations, and may be unsuccessful.

Efforts to acquire additional companies or product lines may divert our managerial resources away from our business operations, and if we complete additional acquisitions, we may incur or assume additional liabilities or experience integration problems.

As part of our growth strategy, we seek to acquire businesses or product lines for various reasons, including adding new products, adding new customers, increasing penetration with existing customers, adding new manufacturing capabilities or expanding into new geographic markets. Our ability to successfully grow through acquisitions depends upon our ability to identify, negotiate, complete and integrate suitable acquisitions and to obtain any necessary financings. These efforts could divert the attention of our management and key personnel from our business operations. If we complete future acquisitions, we may also experience:

- difficulties integrating any acquired products into our existing business;
- difficulties in integrating an acquired company’s technologies, services, employees, customers, partners, business operations and administrative and software management systems with ours;
- delays in realizing the benefits of the acquired products;
- diversion of our management’s time and attention from other business concerns;
- adverse customer reaction to the product acquisition; and
- increases in expenses.

Moreover, we cannot assure you that the anticipated benefits of any acquisition or investment would be realized or that we would not be exposed to unknown liabilities. In connection with these types of transactions, we may issue additional equity securities that would dilute the ownership interest of existing investors or earnings per share, use cash that we may need in the future to operate our business, incur debt on terms unfavorable to us or that we are unable to repay, incur large charges or substantial liabilities, encounter difficulties integrating diverse business cultures and become subject to adverse tax consequences, substantial depreciation or deferred compensation charges. These challenges related to acquisitions or investments could adversely affect our business, operating results and financial condition.

If we fail to accurately forecast demand for our product and component requirements for the manufacture of our product, we could incur additional costs or experience manufacturing delays and may experience lost sales or significant inventory carrying costs.

We use quarterly and annual forecasts based primarily on our anticipated product orders to plan our manufacturing efforts and determine our requirements for components and materials. It is very important that we accurately predict both the demand for our product and the lead times required to obtain or manufacture the necessary components, materials, and fully assembled products. Lead times for components and fully assembled products vary significantly and depend on numerous factors, including the specific supplier, the size of the order, contract terms and current market demand for such products. If we overestimate the demand for our product, we may have excess inventory, which would increase our costs. If we underestimate demand for our product and consequently, our components, materials and fully assembled products requirements, we may have inadequate inventory, which could interrupt our manufacturing, delay delivery of our product to our customers and result in the loss of customer sales. Any of these occurrences would negatively impact our business and operating results.

We depend on sole source or limited source suppliers.

We rely on third parties to manufacture substantially all of the components used in our products, including optics, laser diodes and crystals. We have some long term or volume purchase agreements with our suppliers and currently purchase components and fully-assembled products on a purchase order basis. Some of our suppliers and manufacturers are sole or limited source suppliers. In addition, some of these suppliers are relatively small private companies whose operations may be disrupted or discontinued at any time. There are risks associated with the use of independent manufacturers, including the following:

- the impact of COVID-19 on global supply chains and market stability;
- unavailability of shortages or limitations on the ability to obtain supplies of components and products in the quantities that we require, or that satisfy the environmental requirements to which we are subject;
- delays in delivery or failure of suppliers to deliver critical components and products on the dates we require;
- failure of suppliers to manufacture and assemble components and products to our specifications, and potentially reduced quality; and
- inability to obtain components and products in a timely manner or at acceptable prices due to global supply chain constraints or other factors.

Our business and operating results may suffer from the lack of alternative sources of supply for critical sole and limited source components and fully-assembled products. The process of qualifying suppliers is complex, requires extensive testing with our products, and may be lengthy, particularly as new products are introduced. New suppliers would have to be educated in our production processes. In addition, the use of alternate components may require design alterations to our products and additional product testing under FDA and relevant foreign regulatory agency guidelines, which may delay sales and increase product costs. Any failures by our vendors to adequately supply limited and sole source components or products may impair our ability to offer our existing products, delay the submission of new products for regulatory approval and market introduction, materially harm our business and financial condition and cause our stock price to decline. Establishing our own capabilities to manufacture these components or products would be expensive and could significantly decrease our profit margins. Our business, results of operations and financial condition would be adversely affected if we are unable to continue to obtain components or fully-assembled products in the quantity and quality desired and at the prices we have budgeted.

If our facilities were to experience catastrophic loss, our operations would be seriously harmed.

Our facilities could be subject to catastrophic loss such as fire, flood, unpredictable power outages, or earthquake. All of our research and development activities, manufacturing, our corporate headquarters and other critical business operations are located near major earthquake faults in Mountain View, California. California can experience earthquakes, catastrophic wildfires, and intermittent power outages. Any such loss at any of our facilities caused by fires, flooding, power outages, or earthquakes could disrupt our operations, delay production, shipments and revenue and result in large expense to repair and replace our facilities.

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

We rely on information technology systems to keep financial records and corporate records, communicate with staff and external parties and operate other critical functions, including sales and manufacturing processes. Our information technology systems are potentially vulnerable to disruption due to breakdown or malicious intrusion and computer viruses. If we were to experience a prolonged system disruption in our information technology systems, it could negatively impact the coordination of our sales, planning and manufacturing activities, which could adversely affect our business. In addition, to maximize our information technology efficiency, we have physically consolidated our primary corporate data and computer operations. This concentration, however, exposes us to a greater risk of disruption to our internal information technology systems. Although we maintain offsite back-ups of our data, if operations at our facilities were disrupted, it may cause a material disruption in our business if we are not capable of restoring function on an acceptable time frame.

In addition, our information technology systems are potentially vulnerable to cyber-attacks or other data security breaches-whether by employees or others-which may expose sensitive data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property or could lead to the public exposure of sensitive and confidential information of our employees, customers, suppliers and others, any of which could have a material adverse effect on our business, financial condition and results of operations.

While we have implemented a number of protective measures, including firewalls, antivirus and malware detection tools, patches, log monitors, routine back-ups, system audits, routine password modifications and disaster recovery procedures, such measures may not be adequate or implemented properly to prevent or fully address the adverse effect of such events, and in some cases, we may be unaware of an incident or its magnitude and effects. If we are unable to prevent such security breaches or privacy violations or implement satisfactory remedial measures, our operations could be disrupted, and we may suffer loss of reputation, financial loss and other regulatory penalties because of lost or misappropriated information. In addition, these breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above.

If we fail to maintain our relationships with health care providers, customers may not buy our products and our revenue and profitability may decline. At the same time, relationships with these individuals and entities are the subject of heightened scrutiny and may present the potential for healthcare compliance risks.

We market our products to numerous health care providers, including physicians, hospitals, ambulatory surgery centers, government affiliated groups and group purchasing organizations. We have developed and strive to maintain close relationships with members of each of these groups who assist in product research and development and advise us on how to satisfy the full range of surgeon and patient needs. We rely on these groups to recommend our products to their patients and to other members of their organizations. The failure of our existing products and any new products we may introduce to retain the support of these various groups could have a material adverse effect on our business, financial condition and results of operations. In addition, our interactions, communications, and financial relationships with these individuals and entities present potential healthcare compliance risks.

We are subject to government regulations which may cause us to delay or withdraw the introduction of new products or new applications for our products.

The medical devices that we market and manufacture are subject to extensive regulation by the FDA and by foreign and state governments. Under the FD&C Act and the related regulations, the FDA regulates the design, development, clinical testing, manufacture, labeling, sale, distribution and promotion of medical devices. Before a new device can be introduced into the market, the product must be shown to meet regulatory requirements established by the FD&C Act and implemented by the FDA. Unless otherwise exempt, a device manufacturer must obtain marketing “clearance” through the 510(k) premarket notification process, or “approval” through the lengthier premarket approval application (“PMA”) process. Not all devices are eligible for the 510(k) clearance process. Depending upon the type, complexity and novelty of the device and the nature of the disease or disorder to be treated, the PMA process can take several years, require extensive clinical testing and result in significant expenditures. Even if regulatory clearance or approval is obtained, later discovery of previously unknown safety issues may result in restrictions on the product, including withdrawal of the product from the market. Other countries also have extensive regulations regarding clinical trials and testing prior to new product introductions. Our failure to obtain government approvals or any delays in receipt of such approvals would have a material adverse effect on our business, results of operations and financial condition.

The FDA imposes a broad range of additional requirements on medical device companies. Our products must be produced in compliance with the Quality System Regulation (“QSR”) and our manufacturing facilities are subject to establishment registration and device listing requirements from the FDA, and similar requirements from certain state authorities, and ongoing periodic inspections by the FDA, including unannounced inspections for compliance with applicable requirements. We are subject to monitoring, recordkeeping, and reporting obligations for medical device adverse events and malfunctions; notification of our products’ defects or failure to comply with the FDA’s laser regulations; and reporting of recalls, corrections, or removals of our products. The FDA also imposes requirements for the labeling of our products, and places limitations on claims we are permitted to make about our products in promotional labeling. The Federal Trade

Commission has jurisdiction over the advertising of all our products, which are non-restricted devices, and exercises oversight in coordination with the FDA.

Noncompliance with the applicable requirements can result in, among other things, regulatory citations (including "483 Observations") and Warning Letters, fines, injunctions, civil penalties, recall or seizure of products, total or partial suspension of production, withdrawal of marketing approvals, and criminal prosecution. The FDA also has the authority to request repair, replacement or refund of the cost of any device we manufacture or distribute. Any of these actions by the FDA would materially and adversely affect our ability to continue operating our business and the results of our operations. Such enforcement action can also result in negative publicity.

In addition, we are also subject to varying product standards, packaging requirements, labeling requirements, tariff regulations, duties and tax requirements. As a result of our sales in Europe, we are required to have all medical device products "CE" marked, an international symbol affixed to all our medical device products demonstrating compliance with the European Medical Device Directives and/or Medical Device Regulations ("MDR") and all applicable standards. While currently all our released medical device products are CE marked, continued certification is based on the successful review of our quality system by our European Registrar during their periodic audits. Any loss of certification would have a material adverse effect on our business, results of operations and financial condition. There are several major regulatory changes occurring in the regulation of medical devices in the EU. The revision of the quality system regulation (ISO 13485:2016) has been released that substantially increased the requirements for a medical device quality system. The MDR has replaced the medical device directives (93/42/EEC), and it substantially changes the way that medical devices are brought to market in the EU and how they maintain compliance throughout the product's life cycle. Due to the UK's exit from EU ("Brexit"), different rules will apply in Great Britain (England, Wales and Scotland), Northern Ireland and the EU after the Brexit transition period, which began January 1, 2021. Similarly, Switzerland has changed its relationship with the EU and in May 2022, will require medical device manufacturers such as Iridex to contract with a Swiss Authorized Representative. Additionally, the new revision 4 of the clinical evaluation report guidance document (MEDDEV 2.7.1) severely restricts the use of substantial equivalence for new products, resulting in the need for formal clinical trial data for most many products. These changes will increase the cost for compliance and for product development, and they lengthen product introduction cycles. Failure to comply with these changes can have an adverse effect on our ability to release new products in a timely manner.

Any clinical trials necessary that we may undertake for regulatory approval or marketing reasons will be an expensive, lengthy, costly, and uncertain process, and could result in delays in new product introductions or even an inability to release a product.

We may be required to undertake clinical trials often required to obtain regulatory approvals or may choose to undertake such trials for marketing or other reasons. Clinical trials for products such as ours are complex and expensive and their outcomes are uncertain. Any clinical trials that we may undertake would require the investment of significant financial and administrative resources. Moreover, the results of clinical trials are uncertain, and inconclusive or negative results may not support, or may impair, the sale and adoption of our products. We may suffer significant setbacks in clinical trials, even after earlier clinical trials showed promising results. Any of our products could produce undesirable side effects that could cause us or regulatory authorities to interrupt, delay or halt clinical trials of a product candidate. We, the FDA, or another regulatory authority could suspend or terminate clinical trials at any time if they or we believed the trial participants faced unacceptable health risks.

If we fail to comply with the FDA's quality system regulation and laser performance standards, our manufacturing operations could be halted, and our business would suffer.

We are currently required to demonstrate and maintain compliance with the FDA's QSR. The QSR is a complex regulatory scheme that covers the methods and documentation of the design, testing, control, manufacturing, labeling, quality assurance, packaging, storage and shipping of our products. Because our products involve the use of lasers, our products also are covered by a performance standard for lasers set forth in FDA regulations. The laser performance standard imposes specific record-keeping, reporting, product testing and product labeling requirements. These requirements include affixing warning labels to laser products, as well as incorporating certain safety features in the design of laser products. The FDA enforces the QSR and laser performance standards through periodic unannounced inspections. We have been, and anticipate in the future being, subject to such inspections. Our failure to take satisfactory corrective action in response to an adverse QSR inspection or our failure to comply with applicable laser performance standards could result in enforcement actions, including a public warning letter, a shutdown of our manufacturing operations, a recall of our products, civil or criminal penalties, or other sanctions, which would cause our sales and business to suffer.

If we modify one of our FDA cleared devices, we may need to submit a new 510(k), or potentially a PMA, and if clearance or approval is not obtained, it would prevent us from selling our modified products or cause us to redesign our products.

Any modifications to an FDA-cleared device that would significantly affect its safety or effectiveness or that would constitute a major change in its intended use would require a new 510(k) clearance or possibly a PMA. We may not be able to obtain additional 510(k) clearances or premarket approvals for new products or for modifications to, or additional indications for, our existing products in a timely fashion, or at all. Delays in obtaining future clearances would adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would harm our revenues and future profitability. We have made modifications to our devices in the past and may make additional modifications in the future that we believe do not or will not require additional clearances or approvals. If the FDA disagrees, and requires new clearances or approvals for the modifications, we may be required to recall and to stop marketing the modified devices, which could harm our operating results and require us to redesign our products.

Our products may be misused, which could harm our reputation and our business.

We market and sell our products for use by highly skilled physicians with specialized training and experience in the treatment of eye-related disorders. We, and our distributors, generally offer but do not require purchasers or operators of our products to attend training sessions, nor do we supervise the procedures performed with our products. The physicians who operate our products are responsible for their use and the treatment regime for each individual patient. In addition, non-physicians, particularly in countries outside of the United States, or poorly trained or inexperienced physicians, may make use of our products. Our efforts to market our MicroPulse systems as a fovea-friendly alternative to traditional continuous wavelength systems or alternative treatment methods may result in users failing to implement adequate safety precautions and thereby increase the risks associated with the misuse of our product. The lack of training and the purchase and use of our products by non-physicians or poorly trained or inexperienced physicians may result in product misuse and adverse treatment outcomes, which could harm our reputation and expose us to costly product liability litigation, or otherwise cause our business to suffer.

Inability of customers to obtain credit or material increases in interest rates may harm our sales.

Some of our products are sold to health care providers in general practice. Many of these health care providers purchase our products with funds they secure through various financing arrangements with third-party financial institutions, including credit facilities and short-term loans. If availability of credit becomes more limited, or interest rates increase, these financing arrangements may be harder to obtain or become more expensive for our customers, which may decrease demand for our products. Any reduction in the sales of our products would cause our business to suffer.

Our products could be subject to recalls even after receiving FDA approval or clearance. A recall would harm our reputation and adversely affect our operating results.

The FDA and similar governmental authorities in other countries in which we market and sell our products have the authority to require the recall of our products in the event of material deficiencies or defects in the design or manufacture of our products, or in other cases we may determine that we will recall a product because we have determined that the product is violative, in order to avoid further enforcement action and protect the public health.

A government mandated recall, or a voluntary recall by us, could occur as a result of actual or potential component failures, adverse event reports, manufacturing errors or design defects, including defects in labeling. Furthermore, we may from time to time initiate a recall of a component or set of components comprising a portion of our laser systems, which could increase customer returns, warranty claims and associated reserve levels. A recall could divert management’s attention, cause us to incur significant expenses, harm our reputation with customers and negatively affect our future sales and financial results.

For example, on February 23, 2018, we initiated a worldwide voluntary recall of a specific laser accessory called the TruFocus LIO Premiere® (“LIO”). The LIO is a head-mounted indirect ophthalmoscope that connects to our laser console and is used to view and perform laser treatment on a patient’s retina. This recall was prompted after we received reports of three adverse events from one physician in the United States, resulting in focal cataracts and iris burns occurring during procedures in which the TruFocus LIO Premiere was used. We identified several potential root causes for the adverse events, including use error. On March 22, 2019, we provided the FDA with a request for termination of Recall Number Z-1075-2018. We submitted a follow up request for termination on September 29, 2021. Our termination request is pending.

We obtained FDA clearance for an updated TruFocus LIO Premiere® device. The updated device includes expanded user instructions and minor design changes. Use of the updated LIO may result in adverse events, including those observed with the prior LIO device. If physician use of our updated LIO results in serious adverse events, we may have to initiate another recall or utilize additional resources to further evaluate the design of the LIO device. Furthermore, in light of the recall, we cannot provide any assurance that the updated LIO, will achieve market acceptance. We will be required to devote significant resources to launch and market the updated LIO and cannot provide any assurance that these activities will generate revenue as anticipated. If our revenue grows more slowly than we expect because of a delay in or a lack of market acceptance for our updated LIO, our business and financials will be adversely affected.

If product liability claims are successfully asserted against us, we may incur substantial liabilities that may adversely affect our business or results of operations.

We may be subject to product liability claims from time to time. Our products are highly complex and the risk of significant patient injury is more likely with products and procedures involving the eye. Use of our products incorrectly can result in temporary or permanent loss in vision, burns, scarring, blind spots or other injuries of the eye and we may periodically become subject to product liability lawsuits as a result. We believe we maintain adequate levels of product liability insurance to cover such claims subject to certain deductibles. However, product liability insurance is expensive and we might not be able to obtain product liability insurance in the future on acceptable terms or in sufficient amounts to protect us, if at all. A successful claim brought against us in excess of our insurance coverage could have a material adverse effect on our business, results of operations and financial condition.

Significant developments resulting from recent and potential changes in U.S. trade policies could have a material adverse effect on us.

Certain of our materials may be subject to the effects of various trade agreements, treaties and tariffs. The prior U.S. presidential administration has imposed tariffs on various goods from various countries, including China, Canada and the European Union ("EU"). As a result, Canada, the EU, China and other countries responded with retaliatory tariffs on certain United States exports. We cannot predict the effect these and potential additional tariffs will have on our business, including in the context of escalating trade tensions. Further tariffs, additional taxes, or trade barriers, both domestically and internationally, may affect our selling and/or manufacturing costs and margins, the competitiveness of our products, or our ability to sell products or purchase necessary equipment and supplies, and consequently affect our business, results of operations, or financial conditions. To the extent that trade tariffs and other restrictions imposed by the United States increase the price of, or limit the amount of, raw materials and finished goods imported into the United States, the costs of our raw materials may be adversely affected and the demand from our customers for products and services may be diminished, which could adversely affect our revenues and profitability.

In addition, these potential developments and any market perceptions concerning these and related issues and the attendant regulatory uncertainty regarding, for example, the posture of governments with respect to international trade, could have a material adverse effect on global trade and economic growth which, in turn can adversely affect our business. Furthermore, changes in United States trade policy have resulted and could result in additional reactions from United States trading partners and other countries, including adopting responsive trade policies that make it more difficult or costly for us to export our products to those countries. We sell a significant majority of our products into countries outside the United States and we purchase a significant portion of equipment and supplies from suppliers outside the United States. These measures could also result in increased costs for goods imported into the United States or may cause us to adjust our worldwide supply chain. Any of these effects could require us to increase prices to our customers which may reduce demand, or, if we are unable to increase prices, may result in lowering our margin on products sold.

We cannot predict future trade policy or the terms of any renegotiated trade agreements and their impacts on our business. The adoption and expansion of trade restrictions, the occurrence of a trade war, or other governmental action related to tariffs or trade agreements or policies has the potential to adversely impact demand for our products, our costs, our customers, our suppliers, and the United States economy, which in turn could adversely impact our business, financial condition and results of operations.

Changes in U.S. tax laws could have a material adverse effect on our business, cash flow, results of operations or financial conditions.

The comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act") was enacted in the United States on December 22, 2017 and includes, among other items, a reduction in the federal corporate income tax rate from 35% to 21%, certain interest expense deduction limitations and changes in the timing of certain taxable income. We are required to recognize the effect of the tax law changes in the period of enactment, such as re-measuring our U.S. deferred tax assets and liabilities and reassessing the net realizability of our deferred tax assets and liabilities.

On December 22, 2017, the SEC staff issued Staff Accounting Bulletin No. 118 ("SAB 118") which provides guidance on accounting for the tax effects of the Tax Act. We have completed our analysis and accounting with respect the Tax Act, and identified no additional changes from amounts previously recorded. However, changes in law, interpretations, and facts may result in adjustments to these amounts. Based on our net operating loss carryovers and valuation allowance, there is no impact to its consolidated financial statements as a result of the accounting for the tax effects of the Tax Act.

Subsequent legislations, guidance, regulations or audits that differ from our prior assumptions and interpretations, or other factors which were not anticipated at the time we estimated our tax provision could have a material adverse effect on our business, cash flow, results of operations or financial condition.

We are subject to federal, state and foreign laws governing our business practices which, if violated, could result in substantial penalties. Additionally, challenges to or investigation into our practices could cause adverse publicity and be costly to respond to and thus could harm our business.

The Dodd-Frank Wall Street Reform and Consumer Protection Act requires us to track and disclose the source of certain metals used in manufacturing which may stem from minerals (so called "conflict minerals") which originate in the Democratic Republic of the Congo or adjoining regions. These metals include tantalum, tin, gold and tungsten. These metals are central to the technology industry and are present in some of our products as component parts. In most cases no acceptable alternative material exists which has the necessary properties. It is not possible to determine the source of the metals by analysis but instead a good faith description of the source of the intermediate components and raw materials must be obtained. The components which incorporate those metals may originate from many sources and we purchase fabricated products from manufacturers who may have a long and difficult-to-trace supply chain. As the spot price of these materials varies, producers of the metal intermediates can be expected to change the mix of sources used, and components and assemblies which we buy may have a mix of sources as their origin. We are required to carry out a diligent effort to determine and disclose the source of these materials. There can be no assurance we can obtain this information from intermediate producers not willing or not able to provide this information or further identify their sources of supply or to notify us if these sources change. These metals are subject to price fluctuations and shortages which can affect our ability to obtain the manufactured materials we rely on at favorable terms or from consistent sources. These changes could have an adverse impact on our ability to manufacture and market our devices and products.

Our ability to raise capital in the future may be limited, and future sales and issuances of securities could negatively affect our stock price and dilute the ownership interest of our existing investors.

Our business and operations may consume resources faster than we anticipate. We may need in the future to raise additional funds through future equity or debt financings to meet our operational needs and capital requirements for product development, clinical trials and commercialization and may subsequently require additional fundraising. Additional financing may not be available on favorable terms, if at all. If adequate funds are not available on acceptable terms, we may be unable to invest in future growth opportunities, which could seriously harm our business and operating results. Future sales or issuances of securities by us could decrease the value of our common stock, dilute stockholders' voting power and reduce future potential earnings per share.

To raise capital, we may sell common stock, convertible securities or other equity-linked securities in one or more transactions at prices and in a manner we determine from time to time. If we sell additional equity securities, our existing stockholders may be materially diluted. Additionally, new investors could gain rights, preferences and privileges senior to those of existing holders of our common stock. We may also issue debt securities, which may impose restrictive covenants on our operations or otherwise adversely affect the holdings or the rights of our stockholders.

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

Divestitures of some of our businesses or product lines may materially and adversely affect our financial condition, results of operations or cash flows and require us to raise additional capital to replace revenue from those business units or product lines.

We evaluate the performance and strategic fit of all of our businesses and may sell businesses or product lines. Divestitures involve risks, including difficulties in the separation of operations, services, products and personnel, the diversion of management's attention from other business concerns, the disruption of our business, the potential loss of key employees and the retention of uncertain environmental or other contingent liabilities related to the divested business. In addition, divestitures may result in significant asset impairment charges, including those related to goodwill and other intangible assets, and the loss of revenue which could have a material adverse effect on our financial condition and results of operations. In addition, we may need to raise additional capital to replace the revenue generated from the business or product line that is divested and we can provide no assurance that such capital will be available or available on terms that are acceptable to us. We cannot assure you that we will be successful in managing these or any other significant risks that we encounter in divesting a business or product line, and any divestiture we undertake could materially and adversely affect our business, financial condition, results of operations and cash flows, and may also result in a diversion of management attention, operational difficulties and losses.

If we fail to comply with environmental requirements, our business, financial condition, operating results and reputation could be adversely affected.

Our products and operations are subject to various federal, state, local and foreign environmental laws and regulations, including those governing the use, storage, handling, exposure to, and disposal of hazardous materials and a large and growing body of international standards which govern the design, manufacture, materials content and sourcing, testing, certification, packaging, installation, use and disposal of our products. We must continually keep abreast of these standards and requirements and integrate compliance to these with the development and regulatory documentation for our products. Failure to meet these standards could limit the ability to market our products in those regions which require compliance with such standards or subject us to fines and penalties. Examples of such standards include laws governing the hazardous material content of our devices and products, such as the EU Directive 2015/863 which is known as "RoHS 3" and that relates to Restrictions on the Use of Certain Hazardous Substances and the EU Directive 2012/19/EU on Waste Electrical and Electronic Equipment. Similar laws and regulations have been passed or are pending in several other jurisdictions and may be enacted in other regions, including in the United States, and we are, or may in the future be, subject to these laws and regulations.

Our failure to comply with past, present and future similar laws could result in reduced sales of our devices and products, inventory write-offs, reputational damage, penalties and other sanctions, any of which could harm our business and financial condition. We also expect that our devices and products will be affected by new environmental laws and regulations on an ongoing basis. New environmental laws and regulations will likely result in additional costs and may increase penalties associated with violations or require us to change the content of our devices and products or how they are manufactured, which could have a material adverse effect on our business, operating results and financial condition.

Risks Relating to Ownership of Our Common Stock

Our stock price has been and may continue to be volatile and an investment in our common stock could suffer a decline in value.

The trading price of our common stock has been subject to wide fluctuations in response to a variety of factors, some of which are beyond our control, including changes in foreign currency exchange rates, quarterly variations in our operating results, announcements by us or our competitors of new products or of significant clinical achievements, changes in market valuations of other similar companies in our industry and general market conditions, including deteriorating market conditions due to investor concerns regarding inflation and hostilities between Russia and Ukraine. During the fourth quarter of fiscal year 2021, the trading price of our common stock fluctuated from a low of $5.62 per share to a high of $9.37 per share. During the fiscal year 2021, the trading price of our common stock fluctuated from a low of $2.18 per share to a high of $9.37 per share. There can be no assurance that our common stock trading price will not suffer declines. Our common stock may experience an imbalance between supply and demand resulting from low trading volumes and therefore broad market fluctuations could have a significant impact on the market price of our common stock regardless of our performance.

Because we do not intend to pay dividends, stockholders will benefit from an investment in our common stock only if it appreciates in value.

We expect to retain any earnings for use to further develop our business, and do not expect to declare cash dividends on our common stock in the foreseeable future. The declaration and payment of any such dividends in the future depends upon our earnings, financial condition, capital needs and other factors deemed relevant by the board of directors, and may be restricted by future agreements with lenders. As a result, the success of an investment in our common stock will depend entirely upon any future appreciation. There is no guarantee that our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

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

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us, our market and our competitors. If no or few securities or industry analysts cover our company, the trading price for our stock could be negatively impacted. If one or more of the analysts who covers us downgrades our stock or publishes incorrect or unfavorable research about our business, our stock price could decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which could cause our stock price or trading volume to decline.

Ownership of our common stock is concentrated among a few investors, which may affect the ability of a third party to acquire control of us. Substantial sales by such investors could cause our stock price to decline.

Our directors, executive officers, current five percent or greater stockholders and affiliated entities together beneficially own a significant portion of our common stock outstanding. Having such a concentration of ownership may have the effect of making it more difficult for a third party to acquire, or of discouraging a third party from seeking to acquire, a majority of our outstanding common stock or control of our board of directors through a proxy solicitation.

As a public company, we are obligated to develop and maintain proper and effective internal control over financial reporting. We may not complete our analysis of our internal control over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We are required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. This assessment must include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. We may experience difficulty in meeting these reporting requirements in a timely manner, particularly if material weaknesses or significant deficiencies were to persist. Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 while we are a "smaller reporting company" as defined in the Exchange Act. If we are unable to comply with the requirements of Section 404 in a timely manner, the market price of our stock could decline and we could be subject to sanctions or investigations by the Nasdaq Stock Market, the SEC or other regulatory authorities, which could require additional financial and management resources.

Any failure to develop or maintain effective controls, or any difficulties encountered in their implementation or improvement, could harm our operating results or cause us to fail to meet our reporting obligations. Any failure to implement and maintain effective internal controls also could adversely affect the results of periodic management evaluations regarding the effectiveness of our internal control over financial reporting. Ineffective disclosure controls and procedures or internal control over financial reporting could also cause investors to lose confidence in our reported financial and other information, which could likely have a negative effect on the trading price of our common stock.

Implementing any appropriate changes to our internal controls may require specific compliance training of our directors, officers and employees, entail substantial costs in order to modify our existing accounting systems, and take a significant period of time to complete. Such changes may not, however, be effective in maintaining the adequacy of our internal controls, and any failure to maintain that adequacy, or consequent inability to produce accurate financial statements on a timely basis, could increase our operating costs and could materially impair our ability to operate our business. In the event that we are not able to demonstrate compliance with Section 404 of the Sarbanes-Oxley Act in a timely manner, that our internal controls are perceived as inadequate or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results and our stock price could decline.

Our charter documents, anti-takeover provisions of Delaware law, and contractual provisions could delay or prevent an acquisition or sale of our company.

Our certificate of incorporation empowers the board of directors to establish and issue a class of preferred stock, and to determine the rights, preferences and privileges of the preferred stock. These provisions give the board of directors the ability to deter, discourage or make more difficult a change in control of our company, even if such a change in control could be deemed in the interest of our stockholders or if such a change in control would provide our stockholders with a substantial premium for their shares over the then-prevailing market price for the common stock. Our certificate of incorporation and bylaws contain other provisions that could have an anti-takeover effect, including the following:

- the authorized number of directors may be changed only by resolution of our board of directors;
- only our board of directors is authorized to fill vacant directorships, including newly created seats;
- special meetings of our stockholders may be called only by our board of directors, the chairman of the board, chief executive officer or president, thus prohibiting a stockholder from calling a special meeting;
- stockholders must give advance notice to nominate directors or propose other business; and
- stockholders are not permitted to cumulate votes in the election of directors.

In addition, we are generally subject to the anti-takeover provisions of Section 203 of the Delaware General Corporation Law, which regulates corporate acquisitions. These provisions could discourage potential acquisition proposals and could delay or prevent a change in control transaction. They could also have the effect of discouraging others from making tender offers for our common stock or prevent changes in our management.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We lease a 37,166 square feet facility in Mountain View, California pursuant to a Triple Net Lease dated April 26, 2017 that was scheduled to expire in February 2022. On April 30, 2021, the First Amendment to the Triple Net Lease ("First Amendment") was executed, among other things, to reduce the portion of the premises leased by the Company to approximately 29,830 square feet and extend the lease term through August 31, 2024.

This facility is being substantially utilized for all of our manufacturing, research and development efforts and also serves as our corporate headquarters. Management believes that these facilities are adequate for our current needs and that suitable additional space or an alternative space would be available as needed in the future on commercially reasonable terms.

Item 3. Legal Proceedings

From time to time, we may be involved in legal proceedings arising in the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, we currently believe that the final outcome of these ordinary course matters will not have a material adverse effect on our business, operating results, financial condition or cash flows. Regardless of the outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors. We are not currently party to any material legal proceedings.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

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

Market Information for Common Equity

Our common stock is currently quoted on the Nasdaq Global Market under the symbol "IRIX".

As of March 3, 2022, there were approximately 33 holders of record (not in street name) of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of our stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

Dividend Policy

We have never paid cash dividends on our common stock. We currently intend to retain any earnings for use in our business and do not anticipate paying cash dividends in the foreseeable future.

Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

Not applicable.

Item 6. Selected Financial Data

As a "smaller reporting company," as defined in Rule 12b-2 of the Exchange Act, we are not required to provide the information called for by this Item.

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

Overview

IRIDEX Corporation is an ophthalmic medical technology company focused on the development and commercialization of breakthrough products and procedures used to treat sight-threatening eye conditions, including glaucoma and retinal diseases. Certain of our laser products are powered by our proprietary MicroPulse technology, which is a method of delivering laser energy using a mode which chops the continuous wave laser beam into short, microsecond-long laser pulses. Our products consist of laser consoles, delivery devices and consumable instrumentation, including laser probes.

Our laser consoles consist of the following product lines:

- **Glaucoma** – This product line includes our Cyclo G6® laser system used for the treatment of glaucoma;
- **Medical Retina** – Our medical retina product line includes our IQ 532® and IQ 577® laser photocoagulation systems, which are used for the treatment of diabetic macular edema and other retinal diseases, and our PASCAL Synthesis Photocoagulator for the treatment of retinal diseases; and
- **Surgical Retina** – Our surgical retina line of products includes our OcuLight® TX, OcuLight SL, OcuLight SLx, OcuLight GL and OcuLight GLx laser photocoagulation systems. These systems are often used in vitrectomy procedures, which are used to treat proliferative diabetic retinopathy, macular holes, retinal tears and detachments.

Our business generates recurring revenues through sales of consumable products, predominantly single-use laser probe devices and other instrumentation, as well as repair, servicing and extended service contracts for our laser systems. Our laser probes consist of the following product lines:

- **Glaucoma** – Probes used in our glaucoma product line include our patented MicroPulse P3® Probe, G-Probe® and G-Probe Illuminate®; and
- **Surgical Retina** – Our surgical retina probes include our EndoProbe® family of products used in vitrectomy procedures.

Ophthalmologists typically use our laser systems in hospital ORs and ambulatory surgical centers ("ASCs"), as well as their offices and clinics. In ORs and ASCs, ophthalmologists use our laser systems with either an indirect laser ophthalmoscope or a consumable, single use MicroPulse P3 Probe, G-Probe, G-Probe Illuminate or EndoProbe.

In 2021 and 2020, our products were sold in the United States and Germany predominantly through a direct sales force and internationally (aside from Germany) primarily through Topcon and other independent distributors. Total revenues in 2021 and 2020 were $53.9 million and $36.3 million, respectively. We generated net losses of $5.2 million and $6.3 million in 2021 and 2020, respectively.

Cost of revenues consists primarily of the cost of components and sub-systems, assembling, packaging, shipping and testing components at our facility, direct labor and associated overhead, warranty, royalty and amortization of intangible assets and depot service costs.

Research and development expenses consist primarily of personnel costs, materials to support new product development and research support provided to clinicians at medical institutions developing new applications which utilize our products and regulatory expenses. Research and development costs have been expensed as incurred.

Sales and marketing expenses consist primarily of costs of personnel, sales commissions, travel expenses, advertising and promotional expenses.

General and administrative expenses consist primarily of costs of personnel, legal, accounting and other public company costs, insurance and other expenses not allocated to other departments.

Impact of COVID-19 to our Business

The COVID-19 pandemic continues to create significant uncertainty in global markets, which has disrupted and harmed, and may continue to disrupt and harm, the Company's business, financial condition, and results of operations. The extent of the impact of COVID-19 on the Company's operational and financial performance will depend on certain developments, including but not limited to the duration and spread of outbreak, duration of local, state and federal issued public health orders, impact on our customers and our sales cycles, impact on our employees and impact on regional and worldwide economies and markets in general, all of which are uncertain and cannot be predicted.

We expect our results of operations to be impacted for so long as the COVID-19 pandemic continues.

For more information on risks associated with the COVID-19 outbreak, see the section titled "Risk Factors" in Item 1A of Part I.

Results of Operations - 2021 and 2020

Our fiscal year ends on the Saturday closest to December 31. Fiscal 2021 ended on January 1, 2022 and fiscal 2020 ended on January 2, 2021. Fiscal years 2021 and 2020 included 52 weeks and 53 weeks of operations, respectively.

The following table sets forth certain operating data as a percentage of revenues for the periods indicated.

	FY 2021 January 1, 2022	FY 2020 January 2, 2021
Revenues	100.0%	100.0%
Cost of revenues	57.6%	57.2%
Gross margin	42.4%	42.8%
Operating expenses:		
Research and development	12.7%	9.0%
Sales and marketing	27.2%	33.7%
General and administrative	16.4%	18.2%
Total operating expenses	56.3%	60.9%
Loss from operations	(13.9%)	(18.1%)
Other income, net	4.3%	0.8%
Loss from operations before provision for income taxes	(9.6%)	(17.3%)
Provision for income taxes	0.1%	0.1%
Net loss	(9.7%)	(17.4%)

Comparison of 2021 and 2020

Revenues.

(in thousands)	FY 2021	FY 2020	Change in $	Change in %
Cyclo G6	$ 13,950	$ 11,273	$ 2,677	23.7%
Retina	31,106	18,087	13,019	72.0%
Other	8,847	6,987	1,860	26.6%
Total revenues	$ 53,903	$ 36,347	$ 17,556	48.3%

Our total revenues increased by $17.6 million or 48.3% from $36.3 million in 2020 to $53.9 million in 2021. The increase is primarily due to the increase in sales of our retina products, Cyclo G6 products and other revenues compared to prior year when our business was severely impacted by the COVID-19 pandemic. Revenues from retina products increased by 72.0% driven by an increase in sales of our Iridex retina products in both domestic and international markets compared to prior year when capital equipment sales were especially impacted by the COVID-19 pandemic, and an increase due to the inclusion of PASCAL product revenue from our acquisition of TMLS assets, particularly in the international markets. Revenues from G6 products increased by 23.7%, driven primarily by an increase in Cyclo G6 probes sales in both domestic and international markets and increase in Cyclo G6 systems sales in international market. Other revenues, comprised of service, royalty, freight, legacy G probes and revenue related to exclusive distribution rights, increased 26.6% primarily due to an increase in service revenue and the revenue related to exclusive distribution rights.

While we believe that demand for our products remains and our outlook has improved, the overall capital expenditure landscape within hospitals, surgi-centers and physician offices is still being impacted by the general level of uncertainty brought on by COVID-19 and the spread of other variants. Until this pandemic subsides, we anticipate capital expenditures may continue to be deferred.

Gross Profit.

Gross profit increased by $7.3 million or 46.7% from $15.6 million in 2020 to $22.8 million in 2021. Gross margin decreased by 0.4% from 42.8% in 2020 to 42.4% in 2021. The decrease in gross margin was primarily attributable to unfavorable geographic and product mix, partially offset by a decrease in manufacturing overhead rate as a result of fixed overhead expenditures being absorbed over a higher sales volume.

Gross margins are expected to continue to fluctuate primarily due to changes in the relative proportions of domestic and international sales, the product mix of sales, manufacturing variances, total unit volume changes that lead to greater or lesser production efficiencies and sales returns.

Research and Development.

R&D expenses increased by $3.6 million or 109.3% from $3.3 million in 2020 to $6.9 million in 2021. The increase in spending was primarily attributable to an increased level of spending on the development of laser systems and the inclusion of R&D expense from our acquisition of the PASCAL Business (as defined in Note 3 of the Notes to Consolidated Financial Statements).

Sales and Marketing.

Sales and marketing expenses increased by $2.4 million or 19.6%, from $12.2 million in 2020 to $14.6 million in 2021. The increase was primarily attributable to an increase in personnel costs due to an increase in headcount, higher commission expense because of higher sales and higher travel expenses compared to prior year when the COVID-19 pandemic greatly reduced our business activity.

General and Administrative.

General and administrative expenses increased by $2.2 million or 33.8% from $6.6 million in 2020 to $8.9 million in 2021. The increase was primarily attributable to an increase in personnel costs due to higher bonus accrual and the increase in legal and consulting expenses associated with the acquisition of the PASCAL Business and the execution of the Distribution Agreement with Topcon.

Other Income, Net.

Other income, net amounted to $2.3 million in 2021 and $0.3 million in 2020. Other income, net, consisted primarily of interest income or expense and foreign currency gain or loss. We recognized a $2.5 million gain on forgiveness of the PPP Loan (as defined in Note 11 of the Notes to Consolidated Financial Statements) as other income during the fiscal year 2021.

Income Taxes.

We recorded a provision for income taxes of $40 thousand for the year ended January 1, 2022 compared to $26 thousand for the year ended January 2, 2021. The effective tax rate for the year ended January 1, 2022 was negative 0.77% compared to an effective tax rate of negative 0.41% for the year ended January 2, 2021. The income tax valuation allowance was $21.3 million at the end of 2021 compared to $18.8 million at the end of 2020.

Liquidity and Capital Resources

Liquidity is our ability to generate sufficient cash flows from operating activities to meet our obligations and commitments. In addition, liquidity includes the ability to obtain appropriate financing or to raise capital.

Comparison of 2021 and 2020

As of January 1, 2022, we had cash and cash equivalents of $23.9 million and working capital of $29.7 million compared to cash and cash equivalents of $11.6 million and working capital of $16.7 million as of January 2, 2021.

Net cash provided by operating activities was $8.2 million in 2021 compared to net cash used in operating activities of $3.2 million in 2020. The increase in net cash used in operating activities, expressed in direct cash flow terms, was primarily due to the payment received for the exclusive distribution rights and increase in cash receipts from customers, partially offset by higher vendor payments and higher payroll because of higher headcount.

During 2021, net cash used in investing activities was $5.6 million, which consisted primarily of the purchase of the PASCAL Business for $5.3 million. Net cash used in investing activities during 2020 was $0.1 million, which consisted of capital expenditures.

During 2021, net cash provided by financing activities was $9.5 million, primarily from the net proceeds arising from the issuance of common stock and proceeds from stock option exercises, partially offset by payroll taxes related to the net share settlement of equity awards. Net cash provided by financing activities during 2020 was $2.5 million, primarily from the proceeds from the PPP Loan, pursuant to the Payroll Protection Program established under the Coronavirus Aid, Relief, and Economic Security Act.

We have historically funded our operations primarily through sales of our products to customers, and through common stock and borrowing arrangements. As of January 1, 2022, our principal sources of liquidity consisted of cash and cash equivalents of $23.9 million. We have incurred net losses over the last several years, and as of January 1, 2022, have an accumulated deficit of approximately $62.2 million. We expect to continue to incur operating losses and negative cash flows from operations through December 31, 2022.

We believe our existing cash and cash equivalents will be sufficient to meet our anticipated cash needs over the next 12 months. Our future capital requirements will depend on many factors, including our growth rate, the timing and extent of our spending to support research and development activities, the timing and cost of establishing additional sales and marketing capabilities, the introduction of new and enhanced products and our costs to implement new manufacturing technologies. In

the event that additional financing is required from outside sources, we may not be able to raise it on terms acceptable to us or at all. Any debt financing obtained by us in the future could also involve restrictive covenants relating to our capital-raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities, including potential acquisitions. Additionally, if we raise additional funds through further issuances of equity, our existing stockholders could suffer significant dilution in their percentage ownership of our company, and any new equity securities we issue could have rights, preferences and privileges senior to those of holders of our common stock. If we are unable to obtain adequate financing or financing on terms satisfactory to us, when we require it, our ability to continue to grow or support our business and to respond to business challenges could be significantly limited.

Critical Accounting Policies

Revenue Recognition.

Our revenues arise from the sale of laser consoles, delivery devices, consumables, service, and support activities. We also derive revenue from royalties from third parties which are typically based on licensees' net sales of products that utilize our technology. Our revenue is recognized in accordance with Accounting Standards Codification ("ASC") 606, "Revenue from Contracts with Customers."

We have the following revenue transaction types: (1) Product Sale Only, (2) Laser Advantage Program ("LAP"), (3) Service Contracts, (4) System Repairs (outside of warranty), (5) Royalty Revenue and (6) Exclusive Distribution Rights.

(1) Product Sale Only: Our products consist of laser consoles, delivery devices and consumable instrumentation, including laser probes. Our products are currently sold for use by ophthalmologists specializing in the treatment of glaucoma and retinal diseases. Inside the United States and Germany the products are sold directly to the end users. In other countries outside of the United States and Germany, we utilize independent, third-party distributors to market and sell our products. There is no continuing obligation after shipment is made to these distributors.

We recognize revenue from product sale at a point in time. When a system or disposables are sold without any additional deliverables, we recognize revenue using the five-step model: (1) identifying the contract with the customer, (2) identifying the performance obligations in the contract, (3) determining expected transaction price, (4) allocating the transaction price to the distinct performance obligations in the contract, and (5) recognizing revenue when (or as) the performance obligations are satisfied.

(2) LAP Program: We entered into LAP contracts with customers. Under the LAP program, the system is given away free of charge and title is transferred after the customer purchases the minimum required number of boxes of probes (classified as disposables). Customers with older machines have the ability to trade in their old machines for the most current laser equipment offered in the program (Cyclo G6 Laser) and receive a discount on the program's minimum purchase requirements. Under ASC 606, this non-cash consideration must be included in the transaction price. However, we have determined that there is no value associated with the old machines and the trade-in is essentially offered to encourage customers to purchase more consumables under the program.

We recognize revenue from product sales under the LAP program at a point in time. We allocate the transaction price of the distinct performance obligations in the contract by determining stand-alone selling price using historical pricing net of any variable consideration or discounts to specifically allocate to a particular performance obligation.

(3) Service Contracts: We offer a standard two-year warranty on all system sales. We also offer a service contract which is sold to customers in incremental, one-year periods which begin subsequent to the expiration of the standard two-year warranty. The customer can opt to purchase the service contract at the time of the system sale or after the initial system sale.

We recognize revenue from service contracts ratably over the service period. Revenue recognition for the sale of a service contract is largely dependent on the timing of the sale as follows:

a. Service Contract Sale in Conjunction with System Sale: If the customer opts to purchase a service contract at the time of the system sale, we allocate the transaction price of the distinct performance obligations in the contract by determining stand-alone selling price using historical pricing net of any variable consideration or discounts to specifically allocate to a particular performance obligation.

b. Service Contract Sale Subsequent to System Sale: If the customer opts to purchase a service contract after the initial system sale, we determine the amount of time that has elapsed since the initial system sale. If the service contract is purchased within 60 days of the initial sale, we consider this sale to be an additional element of the original sale and allocates the transaction price of the distinct performance obligations in

the contract by determining stand-alone selling price using historical pricing net of any variable consideration or discounts to specifically allocate to a particular performance obligation. If the service contract is purchased subsequent to 60 days after the initial sale, the sale of the service contract is deemed a separate contract and is deferred at the selling price and recognized ratably over the extended warranty period as the performance obligation is satisfied.

(4) System Repairs (outside of warranty): Customers will occasionally request repairs from us subsequent to the expiration of the standard warranty and outside of a service contract.

We recognize revenue from system repairs (outside of warranty) at a point in time. When the customer requests repairs from us subsequent to the expiration of the standard warranty and outside of a service contract, these repair contracts are considered separate from the initial sale, and as such, revenue is recognized as the repair services are rendered and the performance obligation satisfied.

(5) Royalty Revenue: We have royalty agreements with two customers related to sale of our intellectual property. Under the terms of these agreements, the customer is to remit a percentage of sales to us.

Since these arrangements are for sales-based licenses of intellectual property, for which the guidance in paragraph ASC 606-10-55-65 applies, we recognize revenue only as the subsequent sale occurs. However, we note that such sales being reported by the licensee with a quarter in arrears, such revenue is recognized at the time it is reported and paid by the licensee given that any estimated variable consideration would have to be fully constrained due to the unpredictability of such estimate and the unavoidable risk that it may lead to significant revenue reversals.

(6) Exclusive Distribution Rights: In March 2021, we entered into a distribution agreement with Topcon, pursuant to which we granted Topcon exclusive right to distribute our retina and glaucoma products in certain geographies outside the United States. The exclusivity arrangement with Topcon obligates us to provide training, customer support and exclusive territorial rights to Topcon for certain international regions, for a period of 10 years, commencing upon regulatory approval to transfer existing (non-exclusive) distribution rights from the current distributors in those regions to Topcon. The agreement further stipulates that $2.0 million of arrangement fee is held back and will not be paid in the event that regulatory approval for the Japan region is not obtained within nine months from the date of execution. We have the right to terminate the exclusive distribution rights granted to Topcon for any of the regions at any point in time during the 10-year exclusivity term for a termination fee that is based on a multiple of 1.2 times the revenue generated by us in 2019 for the respective region. We determined that the exclusivity rights, training and customer support represents a single combined performance obligation for each region, to be recognized as exclusivity fee revenue on a straight-line basis over the 10-year period for each region, commencing on the date that regulatory approval is obtained for each region, based on the Standalone Selling Price (“SSP”) for such combined performance obligation for each region. The estimated fair value of the exclusive distribution rights for all regions combined totaled approximately $14.8 million. Of this amount, we fully constrained the arrangement fee allocated to Belarus (approximately $0.2 million recorded as customer deposit under Other current liabilities) because obtaining the necessary regulatory approvals and termination of existing distributor relationship is not feasible. As of January 1, 2022, $0.6 million in revenue related to the exclusive distribution rights was recorded for the fiscal year then ended.

In January 2022, we received approximately $1.8 million from Topcon, representing the $2.0 million previously held back, net of the approximately $0.2 million that we constrained for Belarus.

We elected the practical expedient allowing us to not recognize as a contract asset the commission paid to our salesforce on the sale of our products as an incremental cost of obtaining a contract with a customer but rather recognize such commission as expense when incurred as the amortization period of the asset that we would have otherwise recognized is one year or less.

We recognized an asset from the costs incurred to fulfill a contract. These costs relate directly and must be incurred to satisfy performance obligations on certain specific contract with a customer. These costs are expected to be recovered over time and will be amortized on a systematic basis that is consistent with the recognition of revenue to which it relates. As of January 1, 2022, recognized deferred costs incurred to fulfill a contract with a customer amounted to $0.3 million, included in Prepaid expenses and other current assets and Other long-term assets in our consolidated balance sheets. There was no amortization during fiscal year 2021.

Inventories.

Inventories are stated at the lower of cost or net realizable value and include on-hand inventory physically held at our facility, sales demo inventory and service loaner inventory. Cost is determined on a standard cost basis which approximates

actual cost on a first-in, first-out (“FIFO”) method. Lower of cost or net realizable value is evaluated by considering obsolescence, excessive levels of inventory, deterioration and other factors. Adjustments to reduce the cost of inventory to its net realizable value, if required, are made for estimated excess, obsolete or impaired inventory and are charged to cost of revenues. Once the cost of the inventory is reduced, a new lower-cost basis for that inventory is established, and subsequent changes in facts and circumstances do not result in the restoration or increase in that newly established cost basis. Factors influencing these adjustments include changes in demand, product life cycle and development plans, component cost trends, product pricing, physical deterioration and quality issues. Revisions to these adjustments would be required if these factors differ from our estimates.

Sales Returns Allowance and Allowance for Doubtful Accounts.

We estimate future product returns related to current period product revenue. We analyze historical returns, and changes in customer demand and acceptance of our products when evaluating the adequacy of the sales returns allowance. Significant management judgment and estimates must be made and used in connection with establishing the sales returns allowance in any accounting period. Material differences may result in the amount and timing of our revenue for any period if management made different judgments or utilized different estimates. Our provision for sales returns is recorded net of the associated costs.

Similarly, management must make estimates regarding the uncollectibility of accounts receivable. We are exposed to credit risk in the event of non-payment by customers to the extent of amounts recorded on the consolidated balance sheets. As sales increase the level of accounts receivable would likely also increase. In addition, in the event that customers were to delay their payments to us, the levels of accounts receivable would likely also increase. We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. The allowance for doubtful accounts is based on past payment history with the customer, analysis of the customer’s current financial condition, the aging of the accounts receivable balance, customer concentration and other known factors.

Warranty.

We provide reserves for the estimated cost of product warranties at the time revenue is recognized based on historical experience of known product failure rates and expected material and labor costs to provide warranty services. We generally provide a two-year warranty on our products. Additionally, from time to time, specific warranty accruals may be made if unforeseen technical problems arise. Alternatively, if estimates are determined to be greater than the actual amounts necessary, we may reverse a portion of such provisions in future periods. Our warranty policy is applicable to products which are considered defective in their performance or fail to meet the product specifications. Warranty costs are reflected in the consolidated statements of operations as cost of revenues.

Income Taxes.

We account for income taxes in accordance with ASC 740, “Income Taxes” (“ASC 740”), which requires that deferred tax assets and liabilities be recognized using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. Under ASC 740, the liability method is used in accounting for income taxes. Deferred tax assets and liabilities are determined based on the differences between financial reporting and the tax basis of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. ASC 740 also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that some or all of the deferred tax asset will not be realized. We annually evaluate the realizability of our deferred tax assets by assessing our valuation allowance and by adjusting the amount of such allowance, if necessary. The factors used to assess the likelihood of realization include our forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets. As of January 1, 2022, based on our recent history of losses and its forecasted losses, management believes on the more likely than not basis that a full valuation allowance is required. Accordingly, as of January 1, 2022, we provided a full valuation allowance on our federal and state deferred tax assets.

Accounting for Uncertainty in Income Taxes.

We account for uncertain tax positions in accordance with ASC 740. ASC 740 seeks to reduce the diversity in practice associated with certain aspects of measurement and recognition in accounting for income taxes. ASC 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax provision that an entity takes or expects to take in a tax return. Additionally, ASC 740 provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosures, and transition. Under ASC 740, an entity may only recognize or continue to recognize tax positions that meet a "more-likely-than-not" threshold. In accordance with our accounting policy, we recognize accrued interest and penalties related to unrecognized tax benefits as a component of income tax expense. There was no accrued interest and penalties during the year ended January 1, 2022.

Accounting for Stock-Based Compensation.

We account for stock-based compensation granted to employees and directors, including employees’ stock option awards and restricted stock units at grant date, based on the fair value of the award. Stock-based compensation is recognized as expense on a ratable basis over the requisite service period of the award.

We value options using the Black-Scholes option pricing model. Time-based restricted stock units are valued at the grant date fair value of the underlying common shares. Performance-based restricted stock units without market conditions

are valued at grant date fair value of the underlying common shares. Performance-based RSUs granted with market conditions and performance-based stock options with market conditions are valued using the Monte Carlo simulation model. The Black-Scholes option pricing model requires the use of highly subjective and complex assumptions which determine the fair value of stock-based awards, including the option's expected term and the price volatility of the underlying stock. The Monte Carlo simulation model incorporates assumptions for the holding period, risk-free interest rate, stock price volatility and dividend yield.

Leases.

We determine if an arrangement is a lease at inception. Operating leases are included in Operating lease right-of-use ("ROU") assets, net and Operating lease liabilities in our consolidated balance sheets. As of January 1, 2022, we were not a party to finance lease arrangements.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on information available at commencement date in determining the present value of lease payments. We use the implicit rate when readily determinable. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Under the available practical expedient, we account for the lease and non-lease components as a single lease component.

Foreign Currency

Assets and liabilities of foreign operation with non-U.S. Dollar functional currency are translated to U.S. Dollars using exchange rates in effect at the end of the period. Revenue and expenses are translated to U.S. Dollars using rates that approximate those in effect during the period. The resulting translation adjustments are included in our Consolidated Balance Sheets in the stockholders' equity section as a component of accumulated other comprehensive loss (loss).

Recently Adopted Accounting Standards.

In December 2019, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes" as part of its initiative to reduce complexity in the accounting standards. The standard eliminates certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The standard also clarifies and simplifies other aspects of the accounting for income taxes. The Company adopted ASU 2019-12 in fiscal year 2021 and the standard did not have a material impact on its consolidated financial statements.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

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

As a "smaller reporting company," as defined in Rule 12b-2 of the Exchange Act, we are not required to provide the information called for by this Item.

Item 8. Financial Statements and Supplementary Data.

Our consolidated balance sheets as of January 1, 2022 and January 2, 2021 and the consolidated statements of operations, comprehensive loss, stockholders' equity and cash flows for each of our fiscal years 2021 and 2020 together with the related notes and the report of our independent registered public accounting firm, are on the following pages. Additional required financial information is described in Item 15.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of IRIDEX Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of IRIDEX Corporation (a Delaware corporation) and its subsidiaries (the "Company") as of January 1, 2022 and January 2, 2021, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the two years in the period ended January 1, 2022, and 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 January 1, 2022 and January 2, 2021, and the results of its operations and its cash flows for each of the two years in the period ended January 1, 2022, 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 in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the 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 Matter

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 (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) 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.

Inventory Valuation - Adjustments for Excess or Obsolete Inventories

As described in Notes 2 and 6 to the consolidated financial statements, the Company has inventories with a carrying value of $7.6 million as of January 1, 2022. The Company's inventories are stated at the lower of cost or net realizable value. Cost is determined on a standard cost basis which approximates actual cost on a first-in, first-out ("FIFO") method. Lower of cost or net realizable value is evaluated by considering obsolescence, excessive levels of inventory, deterioration, and other factors. Adjustments to reduce the cost of inventory to its net realizable value, if required, are made for estimated excess, obsolescence or impaired inventory and are charged to cost of revenues. The Company's inventories include demonstration units ("demos") to facilitate the sale of products to prospective customers and loaners for existing customers to use while their product is under repair.

The principal considerations for our determination that performing procedures relating to net realizable value adjustments to inventories is a critical audit matter are the significant amount of judgment by management in developing the assumptions of the forecasted changes in demand, product life cycle and development plans, component cost trends, product pricing, physical deterioration and quality issues, which in turn led to significant auditor judgment, subjectivity, and effort in performing audit procedures and evaluating audit evidence relating to these factors. Additionally, for certain new product launches there may be limited historical data with which to evaluate forecasts.

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 obtaining an understanding of the Company's inventory reserve review process, including the assumptions and data underlying the excess and obsolete inventory valuation. The procedures also included, among others, testing management's process for developing the estimate of the adjustments for excess or obsolete inventories, testing the completeness and accuracy of the underlying data used in the estimate, and evaluating management's assumptions of forecasted product demand. Evaluating management's demand forecast for reasonableness involved considering historical sales by product, comparing prior period estimates to actual results, and determining whether the demand forecast used was consistent with evidence obtained in other areas of the audit.

/s/ BPM LLP

We have served as the Company's auditor since 2007.

San Jose, California

March 15, 2022

Iridex Corporation
CONSOLIDATED BALANCE SHEETS
(in thousands, except share and per share data)

	FY 2021 January 1, 2022	FY 2020 January 2, 2021
ASSETS		
Current assets:		
Cash and cash equivalents	$ 23,852	$ 11,626
Accounts receivable, net of allowance for doubtful accounts of $268 as of January 1, 2022 and $244 as of January 2, 2021	6,610	7,289
Receivable from related party	3,106	—
Inventories	7,614	5,714
Prepaid expenses and other current assets	1,071	730
Total current assets	42,253	25,359
Property and equipment, net	428	449
Intangible assets, net	2,205	68
Goodwill	965	533
Operating lease right-of-use assets, net	2,565	1,428
Other long-term assets	271	132
Total assets	$ 48,687	$ 27,969
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,772	$ 1,148
Payable to related party	627	—
Accrued compensation	3,192	1,965
Accrued expenses	1,575	990
Other current liabilities	1,098	816
Current portion of PPP loan	—	1,249
Accrued warranty	100	166
Deferred revenue	2,355	938
Operating lease liabilities	927	1,409
Total current liabilities	12,646	8,681
Long-term liabilities:		
PPP loan	—	1,248
Accrued warranty	58	81
Deferred revenue	10,930	289
Operating lease liabilities	1,729	282
Other long-term liabilities	25	22
Total liabilities	25,388	10,603
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Preferred stock, $0.01 par value, 2,000,000 shares authorized, no shares issued and outstanding	—	—
Common stock, $0.01 par value:		
Authorized: 30,000,000 shares;		
Issued and outstanding 15,876,171 and 13,899,683 shares as of January 1, 2022 and January 2, 2021, respectively	168	148
Additional paid-in capital	85,255	74,181
Accumulated other comprehensive income (loss)	45	(19)
Accumulated deficit	(62,169)	(56,944)
Total stockholders' equity	23,299	17,366
Total liabilities and stockholders' equity	$ 48,687	$ 27,969

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

Iridex Corporation
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Total revenues	$ 53,903	$ 36,347
Cost of revenues	31,072	20,789
Gross profit	22,831	15,558
Operating expenses:		
Research and development	6,868	3,282
Sales and marketing	14,637	12,239
General and administrative	8,859	6,620
Total operating expenses	30,364	22,141
Loss from operations	(7,533)	(6,583)
Other income, net	2,348	280
Loss from operations before provision for income taxes	(5,185)	(6,303)
Provision for income taxes	40	26
Net loss	$ (5,225)	$ (6,329)
Net loss per share:		
Basic	$ (0.34)	$ (0.46)
Diluted	$ (0.34)	$ (0.46)
Weighted average shares used in computing net loss per common share:		
Basic	15,421	13,842
Diluted	15,421	13,842

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

Iridex Corporation
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(in thousands)

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Net loss	$ (5,225)	$ (6,329)
Change in foreign currency translation adjustments	64	(99)
Comprehensive loss	$ (5,161)	$ (6,428)

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

Iridex Corporation
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands, except share data)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
	Shares	Amount				
FY 2019: Balances, December 28, 2019	13,785,233	$ 147	$ 73,093	$ 80	$ (50,615)	$ 22,705
Employee stock-based compensation expense			1,119			1,119
Release of restricted stock, including net share settlement	114,450	1	(31)			(30)
Other comprehensive income				(99)		(99)
Net loss					(6,329)	(6,329)
FY 2020: Balances, January 2, 2021	13,899,683	148	74,181	(19)	(56,944)	17,366
Issuance of common stock, net of issuance costs	1,618,122	16	9,862			9,878
Issuance of common stock under stock option plan	66,234	1	216			217
Employee stock-based compensation expense			1,628			1,628
Release of restricted stock, including net share settlement	292,132	3	(632)			(629)
Other comprehensive income				64		64
Net loss					(5,225)	(5,225)
FY 2021: Balances, January 1, 2022	15,876,171	$ 168	$ 85,255	$ 45	$ (62,169)	$ 23,299

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

Iridex Corporation
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Operating activities:		
Net loss	$ (5,225)	$ (6,329)
Adjustments to reconcile net loss to net cash used in operating activities:		
Gain on PPP loan forgiveness	(2,497)	—
Depreciation and amortization	803	504
Loss on disposal of property and equipment	3	17
Stock-based compensation	1,628	1,119
Provision for doubtful accounts	37	181
Changes in operating assets and liabilities:		
Accounts receivable	639	1,861
Receivable from related party	(3,106)	—
Inventories	268	2,382
Prepaid expenses and other current assets	(341)	(328)
Operating lease right-of-use assets	905	1,342
Other long-term assets	(143)	27
Accounts payable	1,625	(1,445)
Payable to related party	627	—
Accrued compensation	1,228	(434)
Accrued expenses	588	218
Accrued warranty	(89)	(289)
Deferred revenue	12,058	(583)
Operating lease liabilities	(1,076)	(1,524)
Other long-term liabilities	285	44
Net cash provided by (used in) operating activities	8,217	(3,237)
Investing activities:		
Acquisition of property and equipment	(213)	(97)
Cash paid for business combination, net	(5,343)	—
Proceeds from sale of property and equipment	—	4
Net cash used in investing activities	(5,556)	(93)
Financing activities:		
Proceeds from issuance of common stock, net of issuance costs	9,878	—
Proceeds for stock option exercise	217	—
Taxes paid related to net share settlements of equity awards	(629)	(30)
Proceeds from PPP loan	—	2,497
Net cash provided by financing activities	9,466	2,467
Effect of foreign exchange rate changes	99	(164)
Net increase (decrease) in cash and cash equivalents	12,226	(1,027)
Cash and cash equivalents, beginning of year	11,626	12,653
Cash and cash equivalents, end of year	$ 23,852	$ 11,626
Supplemental disclosure of cash flow information:		
Cash paid (received) during the year for:		
Income taxes	$ 15	$ (74)
Supplemental disclosure of non-cash activities:		
Transfer of inventory to property and equipment	118	129
ROU assets obtained with the modification of operating lease	$ 2,042	$ —

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

1. Organization

Description of Business.

Iridex Corporation ("Iridex," the "Company," "we," "us" or "our") is a leading worldwide provider of therapeutic based laser systems, delivery devices and consumable instrumentation used to treat sight-threatening eye diseases in ophthalmology. Our ophthalmology products are sold in the United States and Germany predominantly through a direct sales force and internationally (aside from Germany) primarily through independent distributors.

2. Summary of Significant Accounting Policies

Financial Statement Presentation.

The consolidated financial statements include the accounts of Iridex and our wholly owned subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Our fiscal year always ends on the Saturday closest to December 31. Fiscal 2021 ended on January 1, 2022 ("FY 2021") and Fiscal 2020 ended on January 2, 2021 ("FY 2020"). Fiscal years 2021 and 2020 included 52 weeks and 53 weeks of operations, respectively.

Use of Estimates.

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, and expenses and the related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates. In addition, any change in these estimates or their related assumptions could have an adverse effect on our operating results.

Cash and Cash Equivalents.

We consider all highly liquid debt instruments with insignificant interest rate risk and an original maturity of three months or less when purchased to be cash equivalents. Our cash equivalents consist primarily of cash deposits in money market funds that are available for withdrawal without restriction.

Sales Returns Allowance and Allowance for Doubtful Accounts.

When determining the transaction price, we estimate the variable consideration as the most likely amount to which we expect to be entitled, and we include the estimated amounts in the transaction price to the extent it is probable that a significant reversal of cumulative revenue will not occur when the uncertainty associated with the variable consideration is resolved. Material differences may result in the amount and timing of our revenue for any period if management made different judgments or utilized different estimates. Our provision for sales returns is recorded net of the associated costs. There was no provision for sales returns as of either January 1, 2022 and January 2, 2021.

Similarly management must make estimates regarding the uncollectibility of accounts receivable. We are exposed to credit risk in the event of non-payment by customers to the extent of amounts recorded on the consolidated balance sheets. As sales levels change, the level of accounts receivable would likely also change. In addition, in the event that customers were to delay their payments to us, the levels of accounts receivable would likely increase. We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. The allowance for doubtful accounts is based on past payment history with the customer, analysis of the customer's current financial condition, the aging of the accounts receivable balance, customer concentration and other known factors.

A reconciliation of the changes in our allowance for doubtful accounts balances for the years ended January 1, 2022 and January 2, 2021 are as follows (in thousands):

Description	Balance at Beginning of the period	Additions	(Deductions)	Balance at End of the period
Allowance for doubtful accounts Years ended				
January 1, 2022	244	37	(13)	268
January 2, 2021	187	181	(124)	244

Inventories.

Inventories are stated at the lower of cost or net realizable value and include on-hand inventory physically held at our facility, sales demo inventory and service loaner inventory. Cost is determined on a standard cost basis which approximates actual cost on a first-in, first-out ("FIFO") method. Lower of cost or net realizable value is evaluated by considering obsolescence, excessive levels of inventory, deterioration and other factors. Adjustments to reduce the cost of inventory to its net realizable value, if required, are made for estimated excess, obsolescence or impaired inventory and are charged to cost of revenues. Once the cost of the inventory is reduced, a new lower-cost basis for that inventory is established, and subsequent changes in facts and circumstances do not result in the restoration or increase in that newly established cost basis. Factors influencing these adjustments include changes in demand, product life cycle and development plans, component cost trends, product pricing, physical deterioration and quality issues. Revisions to these adjustments would be required if these factors differ from our estimates.

As part of our normal business, we generally utilize various finished goods inventory as either sales demos to facilitate the sale of our products to prospective customers, or as loaners that we allow our existing customers to use while we repair their products. We are amortizing these demos and loaners over an estimated useful life of four years. The amortization of the demos is charged to sales and marketing expense while the amortization on the loaners is charged to cost of revenues. The gross value of demos and loaners was $2.0 million and $1.9 million and the accumulated amortization was $1.7 million and $1.7 million as of January 1, 2022 and January 2, 2021, respectively. The net book value of demos and loaners is charged to cost of revenues when such demos or loaners are sold.

Property and Equipment.

Property and equipment are stated at cost less accumulated depreciation and amortization. Depreciation and amortization are calculated on a straight–line basis over the estimated useful lives of the assets, which is generally three years. Leasehold improvements are amortized over the lesser of their estimated useful lives or the lease term. Repairs and maintenance costs are expensed as incurred.

Leases.

We determine if an arrangement is a lease at inception. Operating leases are included in Operating lease right-of-use ("ROU") assets, net and Operating lease liabilities in our consolidated balance sheets. As of January 1, 2022, the Company was not a party to finance lease arrangements.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As most of our leases do not provide an implicit rate, we use our incremental borrowing rate based on information available at commencement date in determining the present value of lease payments. We use the implicit rate when readily determinable. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that we will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Under the available practical expedient, we account for the lease and non-lease components as a single lease component.

Valuation of Goodwill and Intangible Assets.

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in a business combination. The Company reviews goodwill for impairment on an annual basis or whenever events or changes in circumstances indicate the carrying value may not be recoverable. The Company performs an annual impairment test by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. In addition, income tax effects from any tax deductible goodwill carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. The Company has determined that it has a single reporting unit for purposes of performing its goodwill impairment test. As the Company uses the market approach to assess impairment, its common stock price is an important component of the fair value calculation. If the Company's stock price continues to experience significant price and volume fluctuations, this will impact the fair value of the reporting unit and can lead to potential impairment in future periods. The Company performed its annual impairment test during the second quarter of fiscal 2021 and determined that its goodwill was not impaired. As of January 1, 2022, we had not identified any factors that indicated there was an impairment of our goodwill and determined that no additional impairment analysis was then required.

Intangible assets with definite lives are amortized over the useful life of the asset. We review our amortizing intangible assets for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable. An asset is considered impaired if its carrying amount exceeds the future non-discounted net cash flow the asset is expected to generate. If an asset is considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the asset exceeds its fair value. In such circumstances, we conduct an impairment analysis in accordance with Accounting Standards Codification ("ASC") 350, "Intangibles – Goodwill and Other" ("ASC 350").

Revenue Recognition.

Our revenues arise from the sale of laser consoles, delivery devices, consumables, service, and support activities. We also derive revenue from royalties from third parties which are typically based on licensees' net sales of products that utilize our technology. Our revenue is recognized in accordance with ASC 606, "Revenue from Contracts with Customers."

The Company has the following revenue transaction types: (1) Product Sale Only, (2) Laser Advantage Program ("LAP"), (3) Service Contracts, (4) System Repairs (outside of warranty), (5) Royalty Revenue and (6) Exclusive Distribution Rights.

(1) Product Sale Only: The Company's products consist of laser consoles, delivery devices and consumable instrumentation, including laser probes. The Company's products are currently sold for use by ophthalmologists specializing in the treatment of glaucoma and retinal diseases. Inside the United States and Germany the products are sold directly to the end users. In other countries outside of the United States and Germany, the Company utilizes independent, third-party distributors to market and sell the Company's products. There is no continuing obligation after shipment is made to these distributors.

The Company recognizes revenue from product sale at a point in time. When a system or disposables are sold without any additional deliverables, the Company recognizes revenue using the five-step model: (1) identifying the contract with the customer, (2) identifying the performance obligations in the contract, (3) determining expected transaction price, (4) allocating the transaction price to the distinct performance obligations in the contract, and (5) recognizing revenue when (or as) the performance obligations are satisfied.

(2) LAP Program: The Company entered into LAP contracts with customers. Under the LAP program, the system is given away free of charge and title is transferred after the customer purchases the minimum required number of boxes of probes (classified as disposables). Customers with older machines have the ability to trade in their old machines for the most current laser equipment offered in the program (Cyclo G6 Laser) and receive a discount on the program's minimum purchase requirements. Under ASC 606, this non-cash consideration must be included in the transaction price. However, the Company has determined that there is no value associated with the old machines and the trade in is essentially offered to encourage customers to purchase more consumables under the program.

The Company recognizes revenue from product sales under the LAP program at a point in time. The Company allocates the transaction price of the distinct performance obligations in the contract by determining stand-alone selling price using historical pricing net of any variable consideration or discounts to specifically allocate to a particular performance obligation.

(3) Service Contracts: The Company offers a standard two-year warranty on all system sales. The Company also offers a service contract which is sold to customers in incremental, one-year periods which begin subsequent to the expiration of the standard two-year warranty. The customer can opt to purchase the service contract at the time of the system sale or after the initial system sale.

The Company recognizes revenue from service contracts ratably over the service period. Revenue recognition for the sale of a service contract is largely dependent on the timing of the sale as follows:

a. Service Contract Sale in Conjunction with System Sale: If the customer opts to purchase a service contract at the time of the system sale, the Company allocates the transaction price of the distinct performance obligations in the contract by determining stand-alone selling price using historical pricing net of any variable consideration or discounts to specifically allocate to a particular performance obligation.

b. Service Contract Sale Subsequent to System Sale: If the customer opts to purchase a service contract after the initial system sale, the Company determines the amount of time that has elapsed since the initial system sale. If the service contract is purchased within 60 days of the initial sale, the Company considers this sale to be an additional element of the original sale and allocates the transaction price of the distinct performance obligations in the contract by determining stand-alone selling price using historical pricing net of any variable consideration or discounts to specifically allocate to a particular performance obligation. If the service contract is purchased subsequent to 60 days after the initial sale, the sale of the service contract is deemed a separate contract and is deferred at the selling price and recognized ratably over the extended warranty period as the performance obligation is satisfied.

(4) System Repairs (outside of warranty): Customers will occasionally request repairs from the Company subsequent to the expiration of the standard warranty and outside of a service contract.

The Company recognizes revenue from system repairs (outside of warranty) at a point in time. When the customer requests repairs from the Company subsequent to the expiration of the standard warranty and outside of a service contract, these repair contracts are considered separate from the initial sale, and as such, revenue is recognized as the repair services are rendered and the performance obligation satisfied.

(5) Royalty Revenue: The Company has royalty agreements with two customers related to sale of the Company's intellectual property. Under the terms of these agreements, the customer is to remit a percentage of sales to the Company.

Since these arrangements are for sales-based licenses of intellectual property, for which the guidance in paragraph ASC 606-10-55-65 applies, the Company recognizes revenue only as the subsequent sale occurs. However, the Company notes that such sales being reported by the licensee with a quarter in arrear, such revenue is recognized at the time it is reported and paid by the licensee given that any estimated variable consideration would have to be fully constrained due to the unpredictability of such estimate and the unavoidable risk that it may lead to significant revenue reversals.

(6) Exclusive Distribution Rights: In March 2021, the Company entered into a distribution agreement with Topcon, pursuant to which the Company granted Topcon the exclusive right to distribute the Company's retina and glaucoma products in certain geographies outside the United States. The exclusivity arrangement with Topcon obligates the Company to provide training, customer support, and exclusive territorial rights to Topcon for certain international regions, for a period of 10 years, commencing upon regulatory approval to transfer existing (non-exclusive) distribution rights from the current distributors in those regions to Topcon. The agreement further stipulates that $2.0 million of arrangement fee is held back and will not be paid in the event that regulatory approval for the Japan region is not obtained within nine months from the date of execution of the agreement. The Company has the right to terminate the exclusive distribution rights granted to Topcon for any of the regions at any point in time during the 10-year exclusivity term for a termination fee that is based on a multiple of 1.2 times the revenue generated by the Company in 2019 for the respective region. Management has determined that the exclusivity rights, training, and customer support represents a single combined performance obligation for each region, to be recognized as exclusivity fee revenue on a straight-line basis over the 10-year period for each region, commencing on the date that regulatory approval is obtained for each region, based on the SSP for such combined performance obligation for each region. The estimated fair value of the exclusive distribution rights for all regions combined totaled approximately $14.8 million. Of this amount, management has fully-constrained the arrangement fee allocated to Belarus (approximately $0.2 million, recorded as customer deposit under other current liabilities) because obtaining the necessary regulatory approvals and termination of existing distributor relationship is not feasible. As of January 1, 2022, $0.6 million in revenue related to the exclusive distribution rights was recorded for the fiscal year then ended.

In January 2022, the Company received approximately $1.8 million from Topcon, representing the $2.0 million previously held back, net of the approximately $0.2 million that the Company constrained for Belarus.

The Company elected the practical expedient allowing it to not recognize as a contract asset the commission paid to its salesforce on the sale of its products as an incremental cost of obtaining a contract with a customer but rather recognize such commission as expense when incurred as the amortization period of the asset that the Company would have otherwise recognized is one year or less.

The Company recognized an asset from the costs incurred to fulfill a contract. These costs relate directly and must be incurred to satisfy performance obligations on certain specific contract with a customer. These costs are expected to be recovered over time and will be amortized on a systematic basis that is consistent with the recognition of revenue to which it relates. As of January 1, 2022, recognized deferred costs incurred to fulfill a contract with a customer amounted to $0.3 million, included in Prepaid expenses and other current assets and Other long-term assets in the Company's consolidated balance sheets. There was no amortization during fiscal year 2021.

Taxes Collected from Customers and Remitted to Governmental Authorities.

Taxes collected from customers and remitted to governmental authorities are recognized on a net basis in the accompanying consolidated statements of operations as well as accrued expenses to the degree which is appropriate.

Deferred Revenue.

Deferred revenue represents contract liabilities. Revenue related to extended service contracts is deferred and recognized on a straight-line basis over the period of the applicable service period. Costs associated with these service arrangements are recognized as incurred.

A reconciliation of the changes in our deferred revenue balances for the years ended January 1, 2022 and January 2, 2021 are as follows (in thousands):

FY 2019: Balance as of December 28, 2019	$	1,810
Additions to deferral		1,610
Revenue recognized		(2,190)
Deductions from reserves		(3)
FY 2020: Balance as of January 2, 2021		1,227
Additions to deferral		14,503
Revenue recognized		(2,445)
FY 2021: Balance as of January 1, 2022	$	13,285

During each of the twelve months ended January 1, 2022 and January 2, 2021, approximately $0.9 million and $1.3 million were recognized pertaining to amounts deferred as of January 2, 2021 and December 28, 2019, respectively.

Warranty.

We provide reserves for the estimated cost of product warranties at the time revenue is recognized based on historical experience of known product failure rates and expected material and labor costs to provide warranty services. We generally provide a two-year warranty on our products. The Company's warranty policy is applicable to products which are considered defective in their performance or fail to meet the product specifications. Additionally, from time to time, specific warranty accruals may be made if unforeseen technical problems arise. If estimates are determined to be greater than the actual amounts necessary, we may reverse a portion of such provisions in future periods. Warranty costs are reflected in the consolidated statements of operations as costs of revenues.

A reconciliation of the changes in our warranty liability for the years ended January 1, 2022 and January 2, 2021 are as follows (in thousands):

FY 2019: Balance as of December 28, 2019	$	536
Accruals for product warranties		128
Cost of warranty claims		(108)
Adjustment to pre-existing warranties		(309)
FY 2020: Balance as of January 2, 2021		247
Accruals for product warranties		105
Cost of warranty claims		(158)
Adjustment to pre-existing warranties		(36)
FY 2021: Balance as of January 1, 2022	$	158

Shipping and Handling Costs.

Our shipping and handling costs billed to customers are included in revenues and the associated expense is recorded in cost of revenues for all periods presented. Shipping and handling costs billed to customers amounted to $0.3 million and $0.2 million during fiscal years 2021 and 2020, respectively.

Research and Development.

Research and development expenditures are charged to operations as incurred.

Advertising.

Advertising and promotion costs are expensed as they are incurred; such costs were approximately $0.2 million in 2021 and $0.1 million in 2020 and are included in sales and marketing expenses in the accompanying consolidated statements of operations.

Income Taxes.

We account for income taxes in accordance with ASC 740, “Income Taxes” (“ASC 740”), which requires that deferred tax assets and liabilities be recognized using enacted tax rates for the effect of temporary differences between the book and tax bases of recorded assets and liabilities. Under ASC 740, the liability method is used in accounting for income taxes. Deferred tax assets and liabilities are determined based on the differences between financial reporting and the tax basis of assets and liabilities, and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. ASC 740 also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that some or all of the deferred tax asset will not be realized. We annually evaluate the realizability of our deferred tax assets by assessing our valuation allowance and by adjusting the amount of such allowance, if necessary. The factors used to assess the likelihood of realization include our forecast of future taxable income and available tax planning strategies that could be implemented to realize the net deferred tax assets. As of January 1, 2022, based on the Company's recent history of losses and its forecasted losses, management believes on the more likely than not basis that a full valuation allowance is required. Accordingly, as of January 1, 2022, the Company provided a full valuation allowance on its federal and states deferred tax assets.

Accounting for Uncertainty in Income Taxes.

We account for uncertain tax positions in accordance with ASC 740. ASC 740 seeks to reduce the diversity in practice associated with certain aspects of measurement and recognition in accounting for income taxes. ASC 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax provision that an entity takes or expects to take in a tax return. Additionally, ASC 740 provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosures, and transition. Under ASC 740, an entity may only recognize or continue to recognize tax positions that meet a "more-likely-than-not" threshold. In accordance with our accounting policy, we recognize accrued interest and penalties related to unrecognized tax benefits as a component of income tax expense. There were no accrued interest and penalties during the years ended January 1, 2022 and January 2, 2021.

Accounting for Stock-Based Compensation.

We account for stock-based compensation granted to employees and directors, including employees stock option awards and restricted stock units in accordance with ASC 718, “Compensation – Stock Compensation” (“ASC 718”). Accordingly, stock-based compensation cost is measured at grant date, based on the fair value of the award. Stock-based compensation is recognized as expense on a ratable basis over the requisite service period of the award.

We value options using the Black-Scholes option pricing model. Time-based restricted stock units are valued at the grant date fair value of the underlying common shares. Performance-based restricted stock units without market conditions are valued at grant date fair value of the underlying common shares. Performance-based RSUs granted with market conditions and performance-based stock options with market conditions are valued using the Monte Carlo simulation model. The Black-Scholes option pricing model requires the use of highly subjective and complex assumptions which determine the fair value of stock-based awards, including the option’s expected term and the price volatility of the underlying stock. The Monte Carlo simulation model incorporates assumptions for the holding period, risk-free interest rate, stock price volatility and dividend yield.

Concentration of Credit Risk and Other Risks and Uncertainties.

Our cash and cash equivalents are deposited in demand and money market accounts. Deposits held with banks may exceed the amount of insurance provided on such deposits. Generally, these deposits may be redeemed upon demand and therefore, bear minimal risk.

We market our products to distributors and end-users throughout the world. Sales to international distributors are generally made on open credit terms and letters of credit. Management performs ongoing credit evaluations of our customers and maintains an allowance for potential credit losses. Historically, we have not experienced any significant losses related to individual customers or a group of customers in any particular geographic area. For the year ended January 1, 2022, one customer, Topcon, accounted for greater than 10% of total revenues, representing 21%. For the year ended January 2, 2021, no single customer accounted for greater than 10% of total revenues. As of January 1, 2022, two customers, including Topcon, accounted for over 10% of our accounts receivable, representing 31% and 11%, respectively. As of January 2, 2021, one customer accounted for more than 10% of accounts receivable balance, representing 13%.

Our products require approvals from the Food and Drug Administration and international regulatory agencies prior to commercialized sales. Our future products may not receive required approvals. If we were denied such approvals, or if such

approvals were delayed, it would have a material adverse impact on our business, results of operations and financial condition.

Reliance on Certain Suppliers.

Certain components and services used to manufacture and develop our products are presently available from only one or a limited number of suppliers or vendors. The loss of any of these suppliers or vendors would potentially require a significant level of hardware and/or software development efforts to incorporate the products or services into our products.

Net Income (Loss) per Share.

Basic net income (loss) per share is based upon the weighted average number of common shares outstanding during the period. Diluted net income per share is based upon the weighted average number of common shares outstanding and dilutive common stock equivalents outstanding during the period. Common stock equivalents consist of incremental common shares issuable upon the exercise of stock options and release (vesting) of restricted stock units and awards and are calculated under the treasury stock method. Common stock equivalent shares from unexercised stock options and unvested restricted stock units are excluded from the computation for periods in which we incur a net loss or if the exercise price of such options is greater than the average market price of our common stock for the period as their effect would be anti-dilutive. See Note 18 - Computation of Basic and Diluted Net Loss Per Common Share.

Reclassifications

Certain reclassifications have been made to the prior year consolidated financial statements included in these consolidated financial statements to conform to the current year presentation. The reclassifications had no impact on previously reported net loss, accumulated deficit, total assets, or total liabilities.

Foreign Currency

Assets and liabilities of foreign operation with non-U.S. Dollar functional currency are translated to U.S. Dollars using exchange rates in effect at the end of the period. Revenue and expenses are translated to U.S. Dollars using rates that approximate those in effect during the period. The resulting translation adjustments are included in the Company's Consolidated Balance Sheets in the stockholders' equity section as a component of accumulated other comprehensive loss (loss).

Recently Adopted Accounting Standards.

In December 2019, the FASB issued ASU 2019-12, "Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes" as part of its initiative to reduce complexity in the accounting standards. The standard eliminates certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The standard also clarifies and simplifies other aspects of the accounting for income taxes. The Company adopted ASU 2019-12 in fiscal year 2021 and the standard did not have a material impact on its consolidated financial statements.

3. Significant Transactions

On March 2, 2021, the Company entered into a series of strategic transactions with Topcon, headquartered in Tokyo, Japan, in which (i) the Company purchased substantially all of the tangible and intangible assets of Topcon Medical Laser Systems, Inc. ("TMLS") related to laser products previously manufactured and sold by TMLS, including the Pattern Scanning Laser ("PASCAL") products, under the tradename "PASCAL" (altogether, the "PASCAL Business"); (ii) Topcon acquired an equity interest in the Company, comprised of the issuance of 1,618,122 shares of the Company's common stock at $6.18 per share (as determined based on the average of the Nasdaq Official Closing Price of the Company's common stock for the five trading days immediately preceding March 2, 2021); (iii) the Company granted Topcon the exclusive right to distribute certain of its products (including the PASCAL products) in certain international regions (the "Exclusive Distribution Rights") and (iv) Topcon and the Company entered into the Manufacturing Services Agreement regarding transition of regulatory authorizations relating to, and manufacturing and supply of, the PASCAL products for a specified post-closing transition period. The transaction is expected to result in net proceeds to the Company of approximately $19.5 million (of which $17.5 million was received on March 10, 2021 with the remaining $2.0 million received on January 31, 2022. The net proceeds have been allocated on a fair value basis as follows (in thousands):

1) Issuance of common stock (before issuance costs)	$	10,000
2) Grant of exclusive distribution rights		14,800
3) Purchase of tangible and intangible assets		(5,343)
Net Proceeds	$	19,457

The purchase of tangible and intangible assets has been recognized as an acquisition of a business with the relative fair value of the net consideration allocated to the tangible and intangible assets based on their preliminary estimated fair values as of the acquisition date.

Refer to Note 2. Summary of Significant Accounting Policies for the recognition of revenue under ASC 606 for the grant of exclusive distribution rights.

Acquisition of substantially all of TMLS' assets including the rights to the PASCAL product.

On March 10, 2021, the Company completed the purchase of substantially all of the tangible and intangible assets of TMLS, which was an established leader in manufacturing and selling laser products under the tradename "PASCAL." The acquisition has been recognized as an acquisition of a business and the purchase price (approximately $5.3 million) has been preliminarily allocated to tangible and identified intangible assets acquired based on their estimated fair values. As additional information becomes available, the Company may further revise the preliminary purchase price allocation during the remainder of the measurement period (which will not exceed 12 months from March 10, 2021). Any such revisions or changes may be material.

The following table presents the preliminary allocation of the total purchase price:

	Estimated Fair Value (in thousands)
Inventory	$ 2,319
Computers and Software	102
Manufacturing and Office Equipment	112
Other tangible assets	78
Developed Technology	900
In-process Research and Development (IPR&D)	1,000
Trade names and Trademarks	300
Customer Relationships	100
Goodwill	432
Total	**$ 5,343**

Developed technology relates to PASCAL products, a pattern scanning laser used for retinal treatments, and was valued using the multi-period excess earnings method under the income approach. This method reflects the present value of the projected cash flows that are expected to be generated by the developed technology less charges representing the contribution of other assets to those cash flows. The economic useful life is estimated to be seven years, as determined based on the technology cycle related to the developed technology, and the estimated cash flows over the forecast period.

IPR&D pertains to an upcoming release of PASCAL products and has been valued using the multi-period excess earnings method under the income approach.

Trade names and Trademarks pertain to the "PASCAL" trade name, and the fair value was determined by applying the relief-from-royalty method under the income approach. The economic useful life is estimated to be nine years, based on the expected life of the trade name and the cash flows anticipated over the forecast period.

Customer relationships represent the fair value of future projected revenue that will be derived from sales of products to existing customers of the PASCAL Business, with an estimated useful life of seven years.

Goodwill is primarily attributable to the assembled workforce and anticipated synergies and economies of scale expected from the integration of the PASCAL Business. Substantially all goodwill is deductible for tax purposes.

4. Related Party - Topcon

Topcon holds 10.2% voting interest in the Company, which qualifies it to be a principal owner considered a related party, even though it currently does not have significant influence over the Company's operations.

Topcon resells certain of our products as our exclusive distributor in certain international regions. At the same time, the Company also purchases certain raw materials from Topcon. During fiscal year 2021, the Company's revenues related to Topcon amounted to approximately $11.1 million, including $0.6 million recognized exclusive distribution rights revenue. The Company's purchases from Topcon during fiscal year 2021 amounted to $1.1 million. As of January 1, 2022, the amounts receivable from and payable to Topcon were $3.1 million and $0.6 million, respectively.

5. Fair Value Measurement

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between (1) market participant assumptions developed based on market data obtained from independent sources (observable inputs) and (2) an entity's own assumptions about market participant assumptions developed based on the best information available in the circumstances (unobservable inputs). The fair value hierarchy consists of three broad levels, which gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). The three levels of the fair value hierarchy are described below:

- Level 1: Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities.
- Level 2: Directly or indirectly observable inputs as of the reporting date through correlation with market data, including quoted prices for similar assets and liabilities in active markets and quoted prices in markets that are not active. Level 2 also includes assets and liabilities that are valued using models or other pricing methodologies that do not require significant judgment since the input assumptions used in the models, such as interest rates and volatility factors, are corroborated by readily observable data from actively quoted markets for substantially the full term of the financial instrument.
- Level 3: Unobservable inputs that are supported by little or no market activity and reflect the use of significant management judgment. These values are generally determined using pricing models for which the assumptions utilize management's estimates of market participant assumptions.

In determining fair value, we utilize valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs to the extent possible as well as considers counterparty credit risk in our assessment of fair value.

The carrying amounts of our financial assets and liabilities, including cash and cash equivalents, accounts receivable, accounts payable, and accrued expenses as of January 1, 2022 and January 2, 2021, approximate fair value because of the short maturity of these instruments. The carrying amount of the Company's PPP Loan as of January 2, 2021, approximates its fair value based on the specified interest rate.

As of January 1, 2022 and January 2, 2021, financial assets and liabilities measured and recognized at fair value on a recurring basis and classified under the appropriate level of the fair value hierarchy as described above was as follows (in thousands):

	As of January 1, 2022				As of January 2, 2021			
	Fair Value Measurements				Fair Value Measurements			
(in thousands)	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Assets:								
Money market funds	$ 23,359	$ —	$ —	$ 23,359	$ 11,051	$ —	$ —	$ 11,051

The Company's Level 1 financial assets are money market funds whose fair values are based on quoted market prices. The Company does not have any Level 2 and Level 3 financial assets or liabilities.

6. Inventories

The components of our inventories are as follows (in thousands):

	FY 2021 January 1, 2022	FY 2020 January 2, 2021
Raw materials	$ 3,937	$ 2,236
Work in process	201	548
Finished goods	3,476	2,930
Total inventories	$ 7,614	$ 5,714

7. Property and Equipment

The components of our property and equipment are as follows (in thousands):

	FY 2021 January 1, 2022	FY 2020 January 2, 2021
Equipment	$ 11,360	$ 10,760
Leasehold improvements	2,454	2,464
Less: accumulated depreciation and amortization	(13,386)	(12,775)
Property and equipment, net	$ 428	$ 449

Depreciation expense related to property and equipment was $640 thousand and $488 thousand for the fiscal years 2021 and 2020, respectively.

8. Goodwill

The carrying value of goodwill was $965 thousand and $533 thousand as of January 1, 2022 and January 2, 2021, respectively.

In March 2021, the Company recorded approximately $0.4 million goodwill in connection with its purchase of the PASCAL Business.

Goodwill represents the excess of the purchase price over the fair value of the net tangible and identifiable intangible assets acquired in a business combination. The Company reviews goodwill for impairment on an annual basis or whenever events or changes in circumstances indicate the carrying value may not be recoverable. The Company performs an annual impairment test by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceed the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. In addition, income tax effects from any tax-deductible goodwill carrying amount of the reporting unit should be considered when measuring the goodwill impairment loss, if applicable. The Company has determined that it has a single reporting unit for purposes of performing its goodwill impairment test. As the Company uses the market approach to assess impairment, its common stock price is an important component of the fair value calculation. If the Company's stock price continues to experience significant price and volume fluctuations, this will impact the fair value of the reporting unit and can lead to potential impairment in future periods. The Company performed its annual impairment test during the second quarter of fiscal year 2021 and determined that its goodwill was not impaired. The determination of whether any potential impairment of goodwill exists is based upon an impairment test performed in accordance with ASC 350. There was no impairment of goodwill recognized during fiscal years 2021 and 2020.

9. Intangible Assets

The components of our purchased intangible assets as of January 1, 2022 are as follows (in thousands):

	Useful Lives	FY 2021 Annual Amortization	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Useful Lives Remaining
Customer relations	15 Years	$ 28	$ 340	$ 200	$ 140	5.08 Years
Developed technology	7 Years	107	900	107	793	6.17 Years
Trade names	9 Years	28	300	28	272	8.17 Years
In-process R&D	7 Years	—	1,000	—	1,000	Not applicable
Patents	Varies	—	600	600	—	Varies
		$ 163	$ 3,140	$ 935	$ 2,205	

The components of our purchased intangible assets as of January 2, 2021 are as follows (in thousands):

	Useful Lives	FY 2020 Annual Amortization	Gross Carrying Value	Accumulated Amortization	Net Carrying Value	Useful Lives Remaining
Customer relations	15 Years	$ 16	$ 240	$ 172	$ 68	4.25 Years
Patents	Varies	—	600	600	—	Varies
		$ 16	$ 840	$ 772	$ 68	

Aggregate amortization expense for fiscal years 2021 and 2020 were $163 thousand and $16 thousand, respectively. The amortization of developed technology was charged to research and development expense and the customer relations and trade names were charged to sales and marketing expense.

Estimated future amortization expense for purchased intangible assets is as follows (in thousands):

Fiscal Year:	
2022	$ 192
2023	192
2024	192
2025	180
2026	176
Thereafter	273
Total	$ 1,205

10. Accrued Expenses and Other Current Liabilities

The components of our accrued expenses and other current liabilities are as follows (in thousands):

	FY 2021 January 1, 2022	FY 2020 January 2, 2021
Legal and professional fees	$ 379	$ 326
Sales and marketing expenses	238	116
Temporary help and consulting	215	36
Royalties payable	97	89
Accrued rent	—	169
Tax payable	73	—
Other accrued expenses	573	254
Total accrued expenses	$ 1,575	$ 990

	FY 2021 January 1, 2022	FY 2020 January 2, 2021
Customer deposits	$ 1,098	$ 802
Other miscellaneous	—	14
Total other current liabilities	$ 1,098	$ 816

11. Paycheck Protection Program (“PPP”) Loan

On April 23, 2020, the Company qualified for and received a loan pursuant to the PPP, a program implemented by the U.S. Small Business Administration (the “SBA”) under the Coronavirus Aid, Relief, and Economic Security Act, from a qualified lender (the “PPP Lender”), for an aggregate principal amount of approximately $2.5 million (the "PPP Loan"). The PPP Loan bears interest at a fixed rate of 1.0% per annum, with the first six months of interest deferred, has a term of two years, and is unsecured and guaranteed by the U.S. Small Business Administration. The principal amount of the PPP Loan is subject to forgiveness under the Paycheck Protection Program upon the Company’s request to the extent that the PPP Loan proceeds are used to pay expenses permitted by the Paycheck Protection Program, including payroll costs, covered rent and mortgage obligations, and covered utility payments incurred by the Company. On September 22, 2020, the Company submitted the PPP Loan forgiveness application for the entire amount of approximately $2.5 million. To the extent that all or part of the PPP Loan is not forgiven, the Company would have been required to pay interest on the PPP Loan at a rate of

1.0% per annum. The terms of the PPP Loan provide for customary events of default including, among other things, payment defaults, breach of representations, and insolvency events.

In June 2021, the Company was notified by Silicon Valley Bank that its PPP Loan, including accrued interest, has been fully forgiven by the SBA. We recognized a $2.5 million gain on PPP Loan forgiveness, included in Other income, net in the consolidated statements of operations for the fiscal year ended January 1, 2022.

12. Commitments and Contingencies

Operating Lease Commitments.

We lease our operating facilities in Mountain View, California, under a non-cancelable operating lease through February 28, 2022. On April 30, 2021, we amended our lease to reduce the portion of the premises leased by the Company and extend the lease term through August 31, 2024. There are no further options or rights to extend the term of this lease.

Our operating lease commitments consist of facility and office equipment leases. Operating lease expense for fiscal years 2021 and 2020 was approximately $1.1 million and $1.3 million, respectively. The weighted average discount rate used in calculating the present value of lease payments was 4.8%. As of January 1, 2022, the weighted average remaining lease term for our operating leases was 2.6 years.

The following represents maturities of operating lease liabilities as of January 1, 2022 (in thousands):

Fiscal Year	Operating Lease Payments
2022	$ 1,031
2023	1,084
2024	711
2025	—
2026	—
Total lease payments	2,826
Less: Imputed interest	(170)
Total future minimum lease payments	$ 2,656

Purchase Commitments.

Our purchase commitments consist primarily of non-cancellable purchase orders with vendors to manufacture certain components and ophthalmic instruments. Future minimum payments for our purchase commitments as of January 1, 2022 were approximately $18.0 million.

License Agreements.

We are obligated to pay royalties equivalent to 1% to 5% of sales on certain products under certain license agreements with termination dates through the end of 2033. Royalty expense, charged to cost of revenues, was approximately $0.4 million and $0.3 million for fiscal years 2021 and 2020, respectively.

Indemnification Arrangements.

We enter into standard indemnification arrangements in our ordinary course of business. Pursuant to these arrangements, we indemnify, hold harmless, and agree to reimburse the indemnified parties for losses suffered or incurred by the indemnified parties (generally our business partners or customers) in connection with any trade secret, copyright, patent or other intellectual property infringement claim by any third-party with respect to our products. The term of these indemnification agreements is generally perpetual any time after the execution of the agreement. The maximum potential amount of future payments we could be required to make under these agreements is not determinable. We have never incurred costs to defend lawsuits or settle claims related to these indemnification agreements. As a result, we believe the estimated fair value of these agreements is minimal.

We have entered into indemnification agreements with our directors and officers that may require us to indemnify our 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 a culpable nature. These agreements also require us to advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified and to make good faith determination whether or not it is practicable for us to obtain directors and officers insurance. We currently have directors and officers liability insurance.

Legal Proceedings.

From time to time, we may be involved in legal proceedings arising in the ordinary course of business. In general, management believes that ordinary course of business matters will not have a material adverse effect on our financial position

or results of operations and are adequately covered by our liability insurance. However, it is possible that cash flows or results of operations could be materially affected in any particular period by the unfavorable resolution of one of more of these contingencies or because of the diversion of management's attention and the incurrence of significant expenses.

13. Stockholders' Equity

2008 Equity Incentive Plan.

On June 11, 2008, the shareholders approved the adoption of the 2008 Equity Incentive Plan, (the "Incentive Plan"). There are no material changes in the Incentive Plan from the 1998 Plan. In 2014, 2017, 2018, 2019 and 2021, the stockholders approved an amendment to the Incentive Plan for purposes of complying with Section 162(m) of the Internal Revenue Code of 1986, as amended, to increase the share reserve under the Incentive Plan, and to make certain other amendments to the terms of the Incentive Plan. The maximum aggregate number of shares that may be awarded and sold under the Incentive Plan is 4,850,000 shares plus any shares subject to stock options or similar awards granted under the 1998 Plan that expire or otherwise terminate without having been exercised in full and shares issued pursuant to awards granted under the 1998 Stock Plan (the "1998 Plan") that are forfeited to us on or after February 23, 2008, which was the date the 1998 Plan expired.

The following table represents the shares activity and the total number of shares available for grant under the Incentive Plan:

	Shares Available for Grant
Balances as of December 28, 2019	1,107,523
Options granted	(523,650)
Restricted stock granted	(557,816)
Options cancelled or forfeited	257,662
Awards cancelled	194,303
Balances as of January 2, 2021	478,022
Additional shares reserved	1,000,000
Options granted	(348,363)
Restricted stock granted	(257,397)
Options cancelled or forfeited	159,048
Awards cancelled	91,071
Balances as of January 1, 2022	1,122,381

Awards (RSU, PSU, RSA) with a per share or unit purchase price lower than 100% of the fair market value of the Company's common stock on the date of grant under the 2008 Equity Incentive Plan, as amended, are counted against shares authorized under the plan as one and one-half shares of common stock for each share. When cancelled, these shares are added back to the Plan as one and one-half shares.

The following table shows stock-based compensation expenses by functional area in the consolidated statements of operations for 2021 and 2020 (in thousands):

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Cost of revenues	$ 328	$ 133
Research and development	87	(4)
Sales and marketing	518	429
General and administrative	695	561
Total stock-based compensation expense	$ 1,628	$ 1,119

Stock-based compensation expense capitalized to inventory was immaterial for 2021 and 2020.

As of January 1, 2022, there was $2.7 million of total unrecognized compensation cost related to non-vested share-based compensation arrangements under the Incentive Plan. The cost is expected to be recognized over a weighted-average period of 2.00 years.

Summary of Stock Options

The following table summarizes information regarding activity in our stock option plans during the fiscal years ended 2021 and 2020 (in thousands except share and per share data):

	Outstanding Options	
	Number of Shares	Weighted Average Exercise Price
Balances as of December 28, 2019	1,383,552	$ 6.11
Options granted	523,650	2.13
Options exercised	—	—
Options cancelled or forfeited	(257,662)	7.23
Balances as of January 2, 2021	1,649,540	$ 4.67
Options granted	348,363	6.65
Options exercised	(66,234)	3.27
Options cancelled or forfeited	(159,048)	5.14
Balances as of January 1, 2022	1,772,621	$ 5.07

The following table summarizes information with respect to stock options outstanding and exercisable as of January 1, 2022:

	Options Outstanding			Options Vested and Exercisable	
Range of Exercise Prices	Number of Shares Outstanding	Weighted Average Remaining Contractual Life (years)	Weighted Average Exercise Price	Number of Shares Exercisable	Weighted Average Exercise Price
$1.82 - $2.12	12,613	4.85	$ 2.00	5,146	$ 2.04
$2.13 - $2.13	360,473	5.67	$ 2.13	103,164	$ 2.13
$2.18 - $4.85	164,315	4.53	$ 2.99	89,575	$ 3.09
$4.92 - $4.92	600,000	6.38	$ 4.92	229,167	$ 4.92
$4.98 - $6.57	183,354	4.54	$ 5.75	106,659	$ 5.54
$6.58 - $6.58	242,263	6.59	$ 6.58	—	$ —
$6.76 - $11.16	174,141	2.80	$ 9.25	124,121	$ 9.88
$12.85 - $12.85	15,000	1.82	$ 12.85	15,000	$ 12.85
$14.61 - $14.61	20,000	2.18	$ 14.61	20,000	$ 14.61
$16.29 - $16.29	462	1.57	$ 16.29	462	$ 16.29
$1.82 - $16.29	1,772,621	5.45	$ 5.07	693,294	$ 5.69

The determination of the fair value of options granted is computed using the Black-Scholes option pricing model with the following weighted average assumptions:

	Employee Stock Option Plan	
	FY 2021	FY 2020
Average risk free interest rate	0.89%	0.25%
Expected life (in years)	4.45 years	4.55 years
Dividend yield	—	—
Average volatility	73.9%	62.4%

The weighted average grant date fair value of options granted as calculated using the Black-Scholes option pricing was $3.81 and $1.06 per share for the fiscal years 2021 and 2020, respectively.

Option pricing models require the input of various subjective assumptions, including the option's expected life and the price volatility of the underlying stock. The expected stock price volatility is based on analysis of our stock price history over a period commensurate with the expected term of the options, trading volume of our stock, look-back volatilities and Company specific events that affected volatility in a prior period. The expected term of employee stock options represents the weighted average period the stock options are expected to remain outstanding and is based on the history of exercises and cancellations on all past option grants made, the contractual term, the vesting period and the expected remaining term of the outstanding options. The risk-free interest rate is based on the U.S. Treasury interest rates whose term is consistent with the expected life of the stock options. No dividend yield is included as we have not issued any dividends and does not anticipate issuing any dividends in the future.

Information regarding stock options outstanding, exercisable and expected to vest as of January 1, 2022 is summarized below:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value (thousands)
Options outstanding	1,772,621	$ 5.07	5.45	$ 2,796
Options vested and expected to vest	1,603,903	$ 5.08	5.34	$ 2,565
Options exercisable	693,294	$ 5.69	4.24	$ 1,035

The aggregate intrinsic value in the table above represents the total pretax intrinsic value (the difference between our closing stock price on the last trading day of fiscal 2021 and the exercise price, multiplied by the number of in-the-money options) that would have been received by the option holders had all option holders exercised their options on January 1, 2022. This amount is subject to change due to changes to the fair market value of our common stock. The total intrinsic value of options exercised for fiscal years 2021 and 2020 were approximately $251 thousand and $0 thousand, respectively.

Restricted Stock Units

Effective for the 2018 fiscal year and thereafter, each non-employee member of the Board of Directors receives an annual equity award of either restricted stock or RSU, at the election of such Board member, in each case equal to $40 thousand worth of our common stock (determined at the fair market value of the shares at the time such award is granted) under our Incentive Plan. The Lead Independent Director or the Chairman of the Board of Directors receives an additional annual equity award of either restricted stock or RSU, equal to $10 thousand worth of our common stock. Each equity award vests in full on the earlier of the one-year anniversary of the date of grant or the Company's next annual meeting of stockholders, provided that the non-employee member continues to serve on the Board through such date.

Summary of Restricted Stock Units

We recognize the estimated compensation expense of restricted stock units, net of estimated forfeitures, over the vesting term. The estimated compensation expense is based on the fair value of our common stock on the date of grant.

Information regarding the restricted stock units outstanding, vested and expected to vest as of January 1, 2022 is summarized below:

	Number of Shares	Weighted Average Remaining Contractual Life (years)	Aggregate Intrinsic Value (thousands)
Restricted stock units outstanding	253,761	1.08	$ 1,550
Restricted stock units vested and expected to vest	221,439	1.02	$ 1,353

The intrinsic value of the restricted stock units is calculated based on the closing price of our shares as quoted on the Nasdaq Global Market on the last trading day of the fiscal year, December 31, 2021, of $6.11.

The majority of the restricted stock units that were released in fiscal year 2021 were net-share settled such that we withheld shares with value equivalent to the employees' minimum statutory obligation for the applicable income and other employment taxes, and remitted the cash to the appropriate taxing authorities. The total shares withheld were based on the value of the restricted stock units on their release date as determined by our closing stock price. These net-share settlements had the effect of share repurchases as they reduced and retired the number of shares that would have otherwise been issued as a result of the release and did not represent an expense to us. For the fiscal year ended January 1, 2022, 381,974 shares of restricted stock units were released with an intrinsic value of approximately $2.7 million. We withheld 89,842 shares to satisfy approximately $629 thousand of employees' minimum tax obligation on the released restricted stock units.

Information regarding the RSU activity during the years ended January 1, 2022 and January 2, 2021 is summarized below:

	Number of Shares	Weighted Average Grant Date Fair Value
Outstanding as of December 28, 2019	411,133	$ 7.19
Restricted stock units granted	371,877	$ 1.90
Restricted stock units released	(128,624)	$ 2.14
Restricted stock units forfeited	(129,535)	$ 5.48
Outstanding as of January 2, 2021	524,851	$ 5.10
Restricted stock units granted	171,598	$ 6.78
Restricted stock units released	(381,974)	$ 7.07
Restricted stock units forfeited	(60,714)	$ 4.16
Outstanding as of January 1, 2022	253,761	$ 3.50

During the year ended January 1, 2022, the Company awarded 171,598 restricted stock units at a weighted average grant date fair value of $6.78 per share. Of this amount, 5,000 performance-based shares that are subject to service and performance vesting conditions with a weighted average grant date fair value of $8.34 per share.

During fiscal year 2021, 56,900 stock awards were modified to clarify the performance condition. The total incremental expense for these modifications resulted in an additional stock-based compensation expense of $0.4 million recorded within cost of sales and operating expenses on the consolidated statement of operations for the fiscal year 2021.

14. Employee Benefit Plan

We have a plan known as the Iridex Corporation Profit Sharing/401(k) Plan to provide retirement benefits through the deferred salary deductions for substantially all U.S. employees. Employees may contribute up to 15% of their annual compensation to the plan, limited to a maximum amount set by the Internal Revenue Service. The plan also provides for Company contributions at the discretion of the Company. In 2021, the Company made $201 thousand worth of total matching contributions. The Company did not make matching contribution during 2020.

15. Income Taxes

Loss from operations before provision for income taxes was comprised of the following:

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
United States	$ (5,233)	$ (6,486)
Foreign	48	183
Total	$ (5,185)	$ (6,303)

The provision for income taxes includes:

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Current:		
Federal	$ —	$ —
State	20	12
Foreign	18	11
	38	23
Deferred:		
Federal	1	1
State	1	2
	2	3
Provision for income taxes	$ 40	$ 26

Our effective tax rate differs from the statutory federal income tax rate as shown in the following schedule:

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Income tax provision at statutory rate	21.0%	21.0%
State income taxes, net of federal benefit	7.6%	0.9%
Permanent differences	17.1%	(2.8)%
Research and development credits	2.3%	0.4%
Change in valuation allowance	(47.4)%	(23.3)%
Foreign rate differential	(0.2)%	0.4%
Other	(1.2)%	3.0%
Effective tax rate	(0.8)%	(0.4)%

The tax effect of temporary differences and carryforwards that give rise to significant portions of the net deferred tax assets are presented below (in thousands):

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Net operating losses	$ 13,751	$ 11,769
Research and development credits	3,582	3,273
Accruals and reserves	2,637	2,382
Deferred revenue	82	81
Property and equipment	361	307
Intangible assets	268	328
Stock compensation	574	658
Net deferred tax asset	21,255	18,798
Valuation allowance	(21,280)	(18,820)
Net deferred tax liabilities	$ (25)	$ (22)

Our accounting for deferred taxes involves the evaluation of a number of factors concerning the realizability of our deferred tax assets. Assessing the realizability of deferred tax assets is dependent upon several factors, including the likelihood and amount, if any, of future taxable income in relevant jurisdictions during the periods in which those temporary differences become deductible. Our management forecasts taxable income by considering all available positive and negative evidence including our history of operating income or losses and our financial plans and estimates which are used to manage the business. These assumptions require significant judgment about future taxable income. The amount of deferred tax assets considered realizable is subject to adjustment in future periods if estimates of future taxable income are reduced.

As of January 1, 2022, based on the Company's recent history of losses and its forecasted losses, management believes on the more likely than not basis that a full valuation allowance is required. Accordingly, in the fourth quarter of fiscal year 2021, the Company provided a full valuation allowance on its federal and state deferred tax assets. As of January 1, 2022, the Company had federal and state net operating loss (“NOL”) carry forwards of $55.4 million and $26.2 million, respectively. The federal NOL will begin to expire in 2033 and the state NOL will begin to expire in 2022.

The Company has federal and state research credit carry forwards of approximately $2.2 million and $3.1 million, respectively. The federal research credit will begin to expire in 2027 and the state research credit can be carried forward indefinitely. In the event of a change in ownership as defined by IRC sections 382 and 383, the usage of the above mentioned NOLs and credits may be limited.

The Company accounts for uncertain tax positions in accordance with ASC 740, “Income Taxes.” ASC 740 seeks to reduce the diversity in practice associated with certain aspects of measurement and recognition in accounting for income taxes. ASC 740 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax provision that an entity takes or expects to take in a tax return. Additionally, ASC 740 provides guidance on de-recognition, classification, interest and penalties, accounting in interim periods, disclosures, and transition. Under ASC 740, an entity may only recognize or continue to recognize tax positions that meet a "more likely than not" threshold. In accordance with our accounting policy, we recognize accrued interests and penalties related to unrecognized tax benefits as a component of income tax expense. There is no accrued interest and penalty during the year ended January 1, 2022.

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in thousands):

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Balance at the beginning of the year	$ 1,220	$ 1,192
Additions based upon tax positions related to the current year	88	28
Balance at the end of the year	$ 1,308	$ 1,220

If the ending balance of $1.3 million of unrecognized tax benefits at January 1, 2022 were recognized, $0 of the recognition would affect the income tax rate. The Company does not anticipate any material change in our unrecognized tax benefits over the next twelve months. The unrecognized tax benefits may change during the next year for items that arise in the ordinary course of business.

The Company files U.S. federal and state returns. The tax years 2012 to 2021 remain open in several jurisdictions, none of which have individual significance.

16. Loan and Security Agreement

In November 2016, the Company entered into a Loan and Security Agreement (“Loan Agreement”) with Silicon Valley Bank providing for up to $15.0 million secured revolving loan facility (“Revolving Loan Facility”), with availability subject to an accounts receivable borrowing base formula. Borrowings under the Revolving Loan Facility accrue interest at a per annum rate equal to the Wall Street Journal Prime Rate as in effect from time to time, plus 1.5%. The Loan Agreement does not include any financial covenants. The Loan Agreement expired in November 2, 2019 and was amended (First Amendment to the Loan Agreement) to extend through January 1, 2020.

In January 2020, the Company reduced the credit line to match its expected borrowing base, which is reflected in the Second Amendment to the Loan Agreement providing for up to $8.0 million Revolving Loan Facility through January 1, 2021. The Third Amendment to the Loan Agreement was executed in December 2020 to extend the term through April 1, 2022.

As of January 1, 2022 and January 2, 2021, there were no amounts outstanding.

17. Business Segments and Geographical Information

We operate in one segment, ophthalmology. Substantially all of our long-term assets are located in the U.S. We develop, manufacture and market medical devices. Our revenues arise from the sale of consoles, delivery devices, consumables, service and support activities.

Revenue information shown by product is as follows (in thousands):

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Cyclo G6	$ 13,950	$ 11,272
Retina	31,106	18,088
Other(1)	8,847	6,987
Total revenues	$ 53,903	$ 36,347

(1) Other includes service contract revenues of $1,386 and $1,263 recognized during fiscal years 2021 and 2020, respectively. Also includes $615 recognized revenue related to the exclusive distribution rights during fiscal year 2021. Other also includes revenues from paid service, royalty, freight and legacy G probes.

Revenue information shown by geographic region is as follows (in thousands):

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
United States	$ 25,561	$ 19,312
Europe	13,573	8,006
Asia/Pacific Rim	12,226	7,062
Americas, excluding the U.S.	2,543	1,967
	$ 53,903	$ 36,347

Revenues are attributed to countries based on location of end customers. Other than the United States, Japan accounted for more than 10% of the Company's revenues during fiscal year 2021, representing 13.5%. The United States accounted for 47.4% of revenues in 2021. For fiscal year 2020 no individual country accounted for more than 10% of our sales, except for the United States, which accounted for 53.1%.

18. Computation of Basic and Diluted Net Loss Per Common Share

A reconciliation of the numerator and denominator of basic and diluted net income per common share is provided as follows (in thousands, except per share amounts):

	FY 2021 Year Ended January 1, 2022	FY 2020 Year Ended January 2, 2021
Numerator:		
Net loss	$ (5,225)	$ (6,329)
Denominator:		
Weighted average shares of common stock (basic)	15,421	13,842
Weighted average shares of common stock (diluted)	15,421	13,842
Per share data:		
Basic net loss per share	$ (0.34)	$ (0.46)
Diluted net loss per share	$ (0.34)	$ (0.46)

As of January 1, 2022 and January 2, 2021, stock options, restricted stock units and restricted stock awards of 1,655,218 and 1,407,410 shares, respectively, were excluded from the computation of diluted weighted average shares outstanding because to do so would have been anti-dilutive.

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

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures.

Our management, with the participation of our Principal Executive Officer and Principal Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Exchange Act. In designing and evaluating our disclosure controls and procedures, management recognizes that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Additionally, in designing disclosure controls and procedures, our management was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Based on management's evaluation, our Principal Executive Officer and Principal Financial Officer concluded that, as of January 1, 2022, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Principal Executive Officer and Principal Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over the Company's financial reporting. There are inherent limitations in the effectiveness of any internal control, including the possibility of human error and the circumvention or overriding of controls. Accordingly, even any effective internal control can provide only reasonable assurance with respect to financial statement preparation. Further, because of changes in conditions, the effectiveness of any internal control may vary over time. Our management assessed the effectiveness of the company's internal control over financial reporting as of January 1, 2022. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control-Integrated Framework (2013).* Based on our assessment using those criteria, our management concluded that, as of January 1, 2022, our internal control over financial reporting is effective.

This Annual Report on Form 10-K does not include an attestation report of our independent registered public accounting firm regarding internal control over financial reporting. Management's report is not subject to attestation by our independent registered public accounting firm.

Changes in Internal Control over Financial Reporting.

There were no changes in our internal control over financial reporting that occurred during the fourth quarter of fiscal year 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting, as defined in Rule 13a-15(f) and 15(d)-15(f) under the Exchange Act.

Inherent Limitations on Effectiveness of Controls

Our management, including our Principal Executive Officer and Principal Financial Officer, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more persons or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. Other Information

Not applicable.

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

Not applicable.

PART III

Certain information required by Part III has been omitted from this Form 10-K. This information is instead incorporated herein by reference to our definitive Proxy Statement, which we will file within 120 days after the end of our fiscal year pursuant to Regulation 14A in time for our Annual Meeting of Stockholders to be held in 2022.

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this item will be contained in our definitive proxy statement to be filed with the SEC in connection with our 2022 Annual Meeting of Stockholders (the "Proxy Statement"), which is expected to be filed not later than 120 days after the end of our fiscal year ended January 1, 2022 and is incorporated in this report by reference.

Item 11. Executive Compensation

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

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

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services.

The information required by this item will be set forth in the Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed in Part II of this Annual Report on Form 10-K:

	Page in Form 10-K Report
1. Index to Financial Statements	
Report of Independent Registered Public Accounting Firm (PCAOB ID: 207)	43
Consolidated Balance Sheets as of January 1, 2022 and January 2, 2021	45
Consolidated Statements of Operations for the years ended January 1, 2022 and January 2, 2021	46
Consolidated Statements of Comprehensive Loss for the years ended January 1, 2022 and January 2, 2021	47
Consolidated Statements of Stockholders'Equity for the years ended January 1, 2022 and January 2, 2021	48
Consolidated Statements of Cash Flows for the years ended January 1, 2022 and January 2, 2021	49
Notes to Consolidated Financial Statements	50

2. Financial Statement Schedule

Schedules have been omitted because they are either not required, not applicable, or the required information is included in the consolidated financial statements or notes thereto.

3. Exhibits

Exhibit Index

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
3.1 (P)	Amended and Restated Certificate of Incorporation of Registrant.	SB-2	333-00320-LA		February 15, 1996	
3.2	Amended and Restated Bylaws of Registrant.	8-K	000-27598	3.1	April 1, 2019	
4.1	Investor Rights Agreement, dated as of August 31, 2007, by and among the Registrant, BlueLine Capital Partners, LP; BlueLine Capital Partners III, LP and BlueLine Capital Partners II, LP.	8-K	000-27598	4.2	September 7, 2007	
4.2	Amendment No. 1 to Investor Rights Agreement, dated as of March 31, 2009.	8-K	000-27598	4.1	April 6, 2009	
4.3	Description of Capital Stock.	10-K	000-27598	4.3	March 13, 2020	
10.1	Fourth Amendment to Lease Agreement dated February 9, 2016 by and between Zappettini Investment Co. and the Registrant.	10-K	000-27598	10.1	March 31, 2016	
10.2	Form of Indemnification Agreement with directors and officers.					X
10.3	Lease Agreement dated December 6, 1996 by and between Zappettini Investment Co. and the Registrant, as amended pursuant to Amendment No. 1 dated September 15, 2003 and Amendment No. 2 dated December 22, 2008.	10-K	000-27598	10.2	April 1, 2009	
10.3.1	Third Amendment to Lease Agreement dated August 4, 2014 by and between Zappettini Investment Co. and the Registrant.	10-Q	000-27598	10.1	November 3, 2014	
10.3.2	Fourth Amendment to Lease Agreement dated January 31, 2016 by and between ZIC 12112 Terra Bella LLC and the Registrant.	10-K	000-27598	10.1	March 31, 2016	

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.3.3	Triple Net Lease dated April 26, 2017 by and between ZIC 12112 Terra Bella LLC and the Registrant.	8-K	000-27598	10.1	May 1, 2017	
10.3.4	First Amendment to Triple Net Lease by and between ZIC 1212 Terra Bella LLC and the Registrant, executed on April 30, 2021.	10-Q	000-27598	10.1	August 12, 2021	
10.6*	2005 Employee Stock Purchase Plan.	DEF 14A	000-27598		April 30, 2004	
10.7*	2008 Equity Incentive Plan, as amended.	DEF 14A	000-27598		April 30, 2021	
10.8*	Form of 2008 Equity Incentive Plan Option Agreement.	S-8	333-155598	99.1	November 21, 2008	
10.9*	Form of Stand-Alone Stock Option Agreement.	SC TO-I	005-48169	99.(d)(5)	July 30, 2009	
10.10	Securities Purchase Agreement, dated August 31, 2007, by and among BlueLine Capital Partners, LP, BlueLine Capital Partners III, LP, BlueLine Capital Partners II, LP and the Registrant.	8-K	000-27598	10.1	September 7, 2007	
10.11*	Form of 2008 Equity Incentive Plan Restricted Stock Award Agreement.	10-Q	000-27598	10.1	August 4, 2011	
10.12*	Form of 2008 Equity Incentive Plan Restricted Stock Unit Award Agreement.	10-Q	000-27598	10.2	August 4, 2011	
10.13	Loan and Security Agreement, dated as of November 2, 2016, between IRIDEX Corporation and Silicon Valley Bank.	8-K	000-27598	10.1	November 3, 2016	
10.13.1	First Amendment to Loan and Security Agreement between IRIDEX Corporation and Silicon Valley Bank, executed on December 3, 2019.	10-K	000-27598	10.19.1	March 13, 2020	
10.13.2	Second Amendment to Loan and Security Agreement between IRIDEX Corporation and Silicon Valley Bank, executed on January 8, 2020.	10-K	000-27598	10.19.2	March 13, 2020	
10.13.3	Third Amendment to Loan and Security Agreement between IRIDEX Corporation and Silicon Valley Bank, executed on December 31, 2020.	10-K	000-27598	10.19.3	March 23, 2021	
10.14*	Offer Letter between the Company and Mr. Bruce effective as of May 20, 2019.	8-K/A	000-27598	10.1	June 14, 2019	
10.15*	Change in Control Severance Agreement dated as of October 25, 2019, between the Company and Mr. Bruce.	8-K	000-27598	10.1	October 28, 2019	
10.16*	Change in Control Severance Agreement dated as of October 25, 2019, between the Company and Mr. Mercer.	8-K	000-27598	10.2	October 28, 2019	
10.17	Asset Purchase Agreement dated as of March 2, 2021, among the Company, Topcon Medical Laser Systems, Inc. and Topcon America Corporation.	8-K/A	000-27598	10.1	March 4, 2021	

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Exhibit	Filing Date	
10.18	Distribution Agreement dated as of March 2, 2021, by and between the Company and Topcon Corporation.	8-K/A	000-27598	10.2	March 4, 2021	
10.19	Investment Agreement dated as of March 2, 2021, by and between the Company and Topcon America Corporation.	8-K/A	000-27598	10.3	March 4, 2021	
10.20	Registration Rights Agreement dated as of March 2, 2021, by and between the Company and Topcon America Corporation.	8-K/A	000-27598	10.4	March 4, 2021	
21.1 (P)	Subsidiaries of Registrant	SB-2	333-00320-LA		February 15, 1996	
23.1	Consent of BPM LLP, Independent Registered Public Accounting Firm.					X
24.1	Power of Attorney (included on signature page).					X
31.1	Certification of Principal Executive and Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
31.2	Certification of Principal Accounting Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.					X
32.1	Certification of Principal Executive and Financial Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
32.2	Certification of Principal Accounting Officer pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.					X
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because 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 (embedded within the Inline XBRL document).					

* Indicates a management contract or compensatory plan or arrangement.
(P) Print filing.

Trademark Acknowledgments

Iridex, the Iridex logo, IRIS Medical, MicroPulse, OcuLight, EndoProbe, MicroPulse P3, G-Probe, G-Probe Illuminate, TruFocus LIO Premiere, IQ 577, IQ532, Cyclo G6, and TxCell are our registered trademarks. All other trademarks or trade names appearing in this Annual Report on Form 10-K are the property of their respective owners.

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, in the City of Mountain View, State of California, on the 15th day of March 2022.

IRIDEX CORPORATION

By: /s/ David I. Bruce
David I. Bruce
President and Chief Executive Officer

/s/ Fuad Ahmad
Fuad Ahmad
Interim Chief Financial Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David I. Bruce and Fuad Ahmad, jointly and severally, their attorney-in-fact, each with full power of substitution, for him in any and all capacities, to sign on behalf of the undersigned any amendments to this Annual Report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, and each of the undersigned does hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1934, this report has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ David I. Bruce (David I. Bruce)	*President and Chief Executive Officer* *(Principal Executive Officer)*	March 15, 2022
/s/ Fuad Ahmad (Fuad Ahmad)	*Interim Chief Financial Officer* *(Principal Financial Officer)*	March 15, 2022
/s/ Scott Shuda (Scott Shuda)	*Chairman of the Board*	March 15, 2022
/s/ Nandini Devi (Nandini Devi)	*Director*	March 15, 2022
/s/ Robert Grove (Robert Grove)	*Director*	March 15, 2022
/s/ Kenneth E. Ludlum (Kenneth E. Ludlum)	*Director*	March 15, 2022

Exhibit 10.2

IRIDEX CORPORATION

INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("**Agreement**") is entered into effective as of [*insert date*], by and between IRIDEX Corporation, a Delaware corporation (the "**Company**") and [*insert name of indemnitee*] ("**Indemnitee**").

RECITALS

A. The Company and Indemnitee recognize the continued difficulty in obtaining liability insurance for its directors, officers, employees, agents and fiduciaries, the significant increases in the cost of such insurance and the general reductions in the coverage of such insurance.

B. The Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting directors, officers, employees, agents and fiduciaries to expensive litigation risks at the same time as the availability and coverage of director and officer liability insurance has been severely limited.

C. Indemnitee would like further liability protection through guaranty by the Company to cover any additional cost not paid by the director and officer liability insurance maintained by the Company through one or more third party insurance companies, and Indemnitee and other directors, officers, employees, agents and fiduciaries of the Company may not be willing to continue to serve in such capacities without additional protection.

D. The Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve the Company and, in part, in order to induce Indemnitee to continue to provide services to the Company, wishes to provide for the indemnification and advancing of expenses to Indemnitees to the maximum extent permitted by law.

E. In view of the considerations set forth above, the Company desires that Indemnitee be indemnified by the Company as set forth herein.

NOW, THEREFORE, the Company and Indemnitee hereby agree as follows:

1. Indemnification.

(a) Indemnification of Expenses. The Company shall indemnify to the fullest extent permitted by law if Indemnitee was or is or becomes a party to or witness or other participant in, or are threatened to be made a party to or witness or other participant in, any threatened, pending or completed action, suit, proceeding or alternative dispute resolution mechanism, or any hearing, inquiry or investigation that Indemnitee in good faith believe might lead to the institution of any such action, suit, proceeding or alternative dispute resolution mechanism, whether civil, criminal, administrative, investigative or other (hereinafter a "**Claim**") by reason of (or arising in part out of)

any event or occurrence related to the fact that Indemnitee is or was a director, officer, employee, agent or fiduciary of the Company, or any subsidiary of the Company, or is or was serving at the request of the Company as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action or inaction on the part of Indemnitee while serving in such capacity (hereinafter an "**Indemnifiable Event**") against any and all expenses (including attorneys' fees and all other costs, expenses and obligations incurred in connection with investigating, defending, being a witness in or participating in (including on appeal), or preparing to defend, be a witness in or participate in, any such action, suit, proceeding, alternative dispute resolution mechanism, hearing, inquiry or investigation), judgments, fines, penalties and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld) of such Claim and any federal, state, local or foreign taxes imposed on Indemnitees as a result of the actual or deemed receipt of any payments under this Agreement (collectively, hereinafter "**Expenses**"), including all interest, assessments and other charges paid or payable in connection with or in respect of such Expenses. Such payment of Expenses shall be made by the Company as soon as practicable but in any event no later than twenty days after written demand by Indemnitees therefor is presented to the Company.

(b) Reviewing Party. Notwithstanding the foregoing, (i) the obligations of the Company under Section 1(a) shall be subject to the condition that the Reviewing Party (as described in Section 10(e) hereof) shall not have determined (in a written opinion, in any case in which the Independent Legal Counsel referred to in Section 1(c) hereof is involved) that Indemnitee would not be permitted to be indemnified under applicable law, and (ii) the obligation of the Company to make an advance payment of Expenses to Indemnitee pursuant to Section 2(a) (an "**Expense Advance**") shall be subject to the condition that, if, when and to the extent that the Reviewing Party determines that Indemnitee would not be permitted to be so indemnified under applicable law, the Company shall be entitled to be reimbursed by Indemnitee (who hereby agree to reimburse the Company) for all such amounts theretofore paid; provided, however, that if Indemnitee has commenced or thereafter commences legal proceedings in a court of competent jurisdiction to secure a determination that Indemnitee should be indemnified under applicable law, any determination made by the Reviewing Party that Indemnitee would not be permitted to be indemnified under applicable law shall not be binding and Indemnitee shall not be required to reimburse the Company for any Expense Advance until a final judicial determination is made with respect thereto (as to which all rights of appeal therefrom have been exhausted or lapsed). The Indemnitee's obligation to reimburse the Company for any Expense Advance shall be unsecured and no interest shall be charged thereon. If there has not been a Change in Control (as defined in Section 10(c) hereof), the Reviewing Party shall be selected by the Board of Directors, and if there has been such a Change in Control, the Reviewing Party shall be the Independent Legal Counsel referred to in Section 1(c) hereof.

(c) Change in Control. The Company agrees that, if there is a Change in Control of the Company, then, with respect to all matters thereafter arising concerning the rights of Indemnitees to payments of Expenses and Expense Advances under this Agreement or any other agreement or under the Company's Certificate of Incorporation or Bylaws as now or hereafter in effect, Independent Legal Counsel (as defined in Section 10(d) hereof) shall be selected by

Indemnitees and approved by the Company (which approval shall not be unreasonably withheld). Such counsel, among other things, shall render its written opinion to the Company and Indemnitee as to whether and to what extent Indemnitee would be permitted to be indemnified under applicable law and the Company agrees to abide by such opinion. The Company agrees to pay the reasonable fees of the Independent Legal Counsel referred to above and to fully indemnify such counsel against any and all expenses (including attorneys' fees), claims, liabilities and damages arising out of or relating to this Agreement or its engagement pursuant hereto.

(d) Mandatory Payment of Expenses. Notwithstanding any other provision of this Agreement other than Section 9 hereof, to the extent that Indemnitee has been successful on the merits or otherwise, including, without limitation, the dismissal of an action without prejudice, in defense of any action, suit, proceeding, inquiry or investigation referred to in Section (1)(a) hereof or in the defense of any claim, issue or matter therein, Indemnitee shall be indemnified against all Expenses incurred by Indemnitee in connection therewith.

(e) Remedies of Indemnitee.

(i) Subject to Section 1(iv)(v), in the event that (i) a determination is made pursuant to Section 2 of this Agreement that Indemnitee is not entitled to indemnification under this Agreement, (ii) advancement of Expenses is not timely made pursuant to Section 2(a) or 1(iii)(iv) of this Agreement, (iii) no determination of entitlement to indemnification shall have been made pursuant to Section 2 of this Agreement within 90 days after the later of the receipt by the Company of the request for indemnification or the final disposition of the Claim, (iv) payment of indemnification pursuant to this Agreement is not made (A) within ten days after a determination has been made that Indemnitee is entitled to indemnification or (B) with respect to indemnification pursuant to Section 1(a) for Expenses incurred by Indemnitee as a witness in connection with an Indemnifiable Event, Section 1(d) and Section 1(e)(iv) of this Agreement, within 30 days after receipt by the Company of a written request therefor, or (v) the Company or any other person or entity takes or threatens to take any action to declare this Agreement void or unenforceable, or institutes any litigation or other action or proceeding designed to deny, or to recover from, Indemnitee the benefits provided or intended to be provided to Indemnitee hereunder, Indemnitee shall be entitled to an adjudication by a court of competent jurisdiction of his or her entitlement to such indemnification or advancement of Expenses. Alternatively, Indemnitee, at his or her option, may seek an award in arbitration with respect to his or her entitlement to such indemnification or advancement of Expenses, to be conducted by a single arbitrator pursuant to the Commercial Arbitration Rules of the American Arbitration Association. Indemnitee shall commence such proceeding seeking an adjudication or an award in arbitration within 180 days following the date on which Indemnitee first has the right to commence such proceeding pursuant to this Section 1(e)(i); provided, however, that the foregoing clause shall not apply in respect of a proceeding brought by Indemnitee to enforce his or her rights when that Indemnitee is a party to or a participant in and is successful (on the merits or otherwise) in defense of any Claim. The Company shall not oppose Indemnitee's right to seek any such adjudication or award in arbitration in accordance with this Agreement.

(ii) Neither (i) the failure of the Company, its Board of Directors, any committee or subgroup of the Board of Directors, Independent Counsel or stockholders to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct, nor (ii) an actual determination by the Company, its Board of Directors, any committee or subgroup of the Board of Directors, Independent Counsel or stockholders that Indemnitee has not met the applicable standard of conduct, shall create a presumption that Indemnitee has or has not met the applicable standard of conduct. In the event that a determination shall have been made pursuant to Section 1(b) of this Agreement that Indemnitee is not entitled to indemnification, any judicial proceeding or arbitration commenced pursuant to this Section 1(e) shall be conducted in all respects as a *de novo* trial, or arbitration, on the merits, and Indemnitee shall not be prejudiced by reason of that adverse determination. In any judicial proceeding or arbitration commenced pursuant to this Section 1(e), the Company shall, to the fullest extent not prohibited by law, have the burden of proving Indemnitee is not entitled to indemnification or advancement of Expenses, as the case may be.

(iii) To the fullest extent not prohibited by law, the Company shall be precluded from asserting in any judicial proceeding or arbitration commenced pursuant to this Section 1(e) that the procedures and presumptions of this Agreement are not valid, binding and enforceable and shall stipulate in any such court or before any such arbitrator that the Company is bound by all the provisions of this Agreement. If a determination shall have been made pursuant to Section 1(b) of this Agreement that Indemnitee is entitled to indemnification, the Company shall be bound by such determination in any judicial proceeding or arbitration commenced pursuant to this Section 1(e), absent (A) a misstatement by Indemnitee of a material fact, or an omission of a material fact necessary to make Indemnitee's statements not materially misleading, in connection with the request for indemnification, or (B) a prohibition of such indemnification under applicable law.

(iv) To the extent not prohibited by law, the Company shall indemnify Indemnitee against all Expenses that are incurred by Indemnitee in connection with any action for indemnification or advancement of Expenses from the Company under this Agreement or under any directors' and officers' liability insurance policies maintained by the Company to the extent Indemnitee is successful in such action, and, if requested by Indemnitee, shall (as soon as reasonably practicable, but in any event no later than 90 days, after receipt by the Company of a written request therefor) advance such Expenses to Indemnitee, subject to the provisions of Section 2(b).

(v) Notwithstanding anything in this Agreement to the contrary, no determination as to entitlement to indemnification shall be required to be made prior to the final disposition of the Claim.

2. Expenses; Indemnification Procedure.

(a) Advancement of Expenses. The Company shall advance all Expenses incurred by Indemnitee. The advances to be made hereunder shall be paid by the Company to

Indemnitee as soon as practicable but in any event no later than twenty days after written demand by Indemnitee therefor to the Company.

(b) Notice/Cooperation by Indemnitee. Indemnitee shall, as a condition precedent to Indemnitee's right to be indemnified under this Agreement, give the Company notice in writing as soon as practicable of any Claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notwithstanding the foregoing, the failure by Indemnitee to notify the Company will not relieve the Company from any liability which it may have to Indemnitee hereunder or otherwise than under this Agreement, and any delay in so notifying the Company shall not constitute a waiver by Indemnitee of any rights, except to the extent that such failure or delay materially prejudices the Company Notice to the Company shall be directed to the Chief Executive Officer of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power. Any costs or expenses (including attorneys' fees and disbursements) reasonably incurred by Indemnitee in providing such information or cooperation shall be borne by the Company, to the extent permitted by applicable law. Any delay in providing the requested information or cooperation will not relieve the Company from its obligations under this Agreement, except to the extent such failure is prejudicial.

(c) Presumptions; Burden of Proof. For purposes of this Agreement, the termination of any Claim by judgment, order, settlement (whether with or without court approval) or conviction, or upon a plea of nolo contendere, or its equivalent, shall not create a presumption that Indemnitee did not meet any particular standard of conduct or have any particular belief or that a court has determined that indemnification is not permitted by applicable law. In addition, neither the failure of the Reviewing Party to have made a determination as to whether Indemnitee has met any particular standard of conduct or had any particular belief, nor an actual determination by the Reviewing Party that Indemnitee has not met such standard of conduct or did not have such belief, prior to the commencement of legal proceedings by Indemnitee to secure a judicial determination that Indemnitee should be indemnified under applicable law, shall be a defense to Indemnitee's claim or create a presumption that Indemnitee has not met any particular standard of conduct or did not have any particular belief. In connection with any determination by the Reviewing Party or otherwise as to whether Indemnitee is entitled to be indemnified hereunder, the Reviewing Party shall, to the fullest extent not prohibited by law, presume that Indemnitee is entitled to indemnification under this Agreement, and the burden of proof shall, to the fullest extent not prohibited by law, be on the Company to establish that Indemnitee is not so entitled.

(d) Notice to Insurers. If, at the time of the receipt by the Company of a notice of a Claim pursuant to Section 2(b) hereof, the Company has liability insurance in effect which may cover such Claim, the Company shall give prompt notice of the commencement of such Claim to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of Indemnitee, all amounts payable as a result of such action, suit, proceeding, inquiry or investigation in accordance with the terms of such policies.

(e) Selection of Counsel. In the event the Company shall be obligated hereunder to pay the Expenses of any Claim, the Company shall be entitled to assume the defense of such Claim with counsel approved by Indemnitee, which approval shall not be unreasonably withheld, upon the delivery to Indemnitee of written notice of its election so to do. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same Claim; provided that, (i) Indemnitee shall have the right to employ Indemnitee's counsel in any such Claim at Indemnitee's expense and (ii) if (A) the employment of counsel by Indemnitee has been previously authorized by the Company, (B) Indemnitee shall have reasonably concluded that there is a conflict of interest between the Company and Indemnitee in the conduct of any such defense, or (C) the Company shall not continue to retain such counsel to defend such Claim, then the fees and expenses of Indemnitee's counsel shall be at the expense of the Company. The Company shall have the right to conduct such defense as it sees fit in its sole discretion, including the right to settle any claim against Indemnitee without the consent of the Indemnitee; provided that the Company shall not settle any Claim (or any part thereof) in a manner that imposes any penalty or liability on Indemnitee without Indemnitee's prior written consent, which shall not be unreasonably withheld. The Company shall not be entitled, without the consent of Indemnitee, to assume the defense of any claim brought by or in the right of the Company.

3. Additional Indemnification Rights; Nonexclusivity.

(a) Scope. The Company hereby agrees to indemnify Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In the event of any change after the date of this Agreement in any applicable law, statute or rule which expands the right of a Delaware corporation to indemnify a member of its Board of Directors or an officer, employee, agent or fiduciary, it is the intent of the parties hereto that Indemnitee shall enjoy by this Agreement the greater benefits afforded by such change. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify a member of its Board of Directors or an officer, employee, agent or fiduciary, such change, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement, shall have no effect on this Agreement or the parties' rights and obligations hereunder except as set forth in Section 8(a) hereof.

(b) Contribution. To the fullest extent permissible under applicable law, if the indemnification provided for in this Agreement is unavailable to Indemnitee, the Company, in lieu of indemnifying Indemnitee, shall contribute to the amounts incurred by Indemnitee, whether for Expenses, judgments, fines or amounts paid or to be paid in settlement, in connection with any claim relating to an indemnifiable event under this Agreement, in such proportion as is deemed fair and reasonable in light of all of the circumstances of such Claim in order to reflect (i) the relative benefits received by the Company and Indemnitee as a result of the events and transactions giving rise to such Claim; and (ii) the relative fault of Indemnitee and the Company (and its other directors, officers, employees and agents) in connection with such events and transactions.

(c) Nonexclusivity. The indemnification provided by this Agreement shall be in addition to any rights to which Indemnitee may be entitled under the Company's Certificate of Incorporation, its Bylaws, any vote of stockholders or disinterested directors, the Delaware General Corporation Law, or otherwise. The indemnification provided under this Agreement shall continue as to Indemnitee for any action Indemnitee took or did not take while serving in an indemnified capacity even though Indemnitee may have ceased to serve in such capacity.

4. No Duplication of Payments. The Company shall not be liable under this Agreement to make any payment in connection with any Claim made against Indemnitee to the extent Indemnitee has otherwise actually received payment (under any insurance policy, Certificate of Incorporation, Bylaw or otherwise) of the amounts otherwise indemnifiable hereunder.

5. Partial Indemnification. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of Expenses incurred in connection with any Claim, but not, however, for all of the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such Expenses to which Indemnitee is entitled.

6. Mutual Acknowledgement. Both the Company and Indemnitee acknowledge that in certain instances, Federal law or applicable public policy may prohibit the Company from indemnifying its directors, officers, employees, agents or fiduciaries under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

7. Liability Insurance. The Company shall, from time to time, make the good faith determination whether or not it is practicable for the Company to obtain and maintain a policy or policies of insurance with reputable insurance companies providing the officers and directors of the Company with coverage for losses from wrongful acts, or to ensure the Company's performance of its indemnification obligations under this Agreement. Among other considerations, the Company will weigh the costs of obtaining such insurance coverage against the protection afforded by such coverage. In all policies of directors' and officers' liability insurance, Indemnitee shall be named as an insured in such a manner as to provide Indemnitee the same rights and benefits as are accorded to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer; or of the Company's key employees, if Indemnitee is not an officer or director but is a key employee. Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain such insurance if the Company determines in good faith that such insurance is not reasonably available, if the premium costs for such insurance are disproportionate to the amount of coverage provided, if the coverage provided by such insurance is limited by exclusions so as to provide an insufficient benefit, or if Indemnitee is covered by similar insurance maintained by a subsidiary or parent of the Company.

8. Exceptions. Any other provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) Excluded Action or Omissions. To indemnify Indemnitee for Expenses resulting from acts, omissions or transactions for which Indemnitee is prohibited from receiving indemnification under this Agreement or applicable law;

(b) Claims Initiated by Indemnitee. To indemnify or advance expenses to Indemnitee with respect to Claims initiated or brought voluntarily by Indemnitee and not by way of defense, except (i) with respect to actions or proceedings brought to establish or enforce a right to indemnification under this Agreement or any other agreement or insurance policy or under the Company's Certificate of Incorporation or Bylaws now or hereafter in effect relating to Claims for Indemnifiable Events, (ii) in specific cases if the Board of Directors has approved the initiation or bringing of such Claim, or (iii) as otherwise required under Section 145 of the Delaware General Corporation Law, regardless of whether Indemnitee ultimately is determined to be entitled to such indemnification, advance expense payment or insurance recovery, as the case may be;

(c) Lack of Good Faith. To indemnify Indemnitee for any expenses incurred by Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by Indemnitee in such proceeding was not made in good faith or was frivolous; or

(d) Claims Under Section 16(b). To indemnify Indemnitee for expenses and the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute.

(e) Reimbursements. To indemnify Indemnitee for any reimbursement of the Company by Indemnitee of any bonus or other incentive-based or equity-based compensation or of any profits realized by Indemnitee from the sale of securities of the Company, as required in each case under the Securities Exchange Act of 1934, as amended (including any such reimbursements that arise from an accounting restatement of the Company pursuant to Section 304 of the Sarbanes-Oxley Act of 2002 (the "**Sarbanes-Oxley Act**"), or the payment to the Company of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 306 of the Sarbanes-Oxley Act), if Indemnitee is held liable therefor (including pursuant to any settlement arrangements).

9. Period of Limitations. No legal action shall be brought and no cause of action shall be asserted by or in the right of the Company against Indemnitee, Indemnitee's estate, spouse, heirs, executors or personal or legal representatives after the expiration of two years from the date of accrual of such cause of action, and any claim or cause of action of the Company shall be extinguished and deemed released unless asserted by the timely filing of a legal action within such two-year period; provided, however, that if any shorter period of limitations is otherwise applicable to any such cause of action, such shorter period shall govern.

10. Construction of Certain Phrases.

(a) For purposes of this Agreement, references to the "Company" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees, agents or fiduciaries, so that if Indemnitee is or was a director, officer, employee, agent or fiduciary of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee, agent or fiduciary of another corporation, partnership, joint venture, employee benefit plan, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(b) For purposes of this Agreement, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a director, officer, employee, agent or fiduciary of the Company which imposes duties on, or involves services by, such director, officer, employee, agent or fiduciary with respect to an employee benefit plan, its participants or its beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

(c) For purposes of this Agreement a "Change in Control" shall be deemed to have occurred if, on or after the date of this Agreement, (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended), other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company acting in such capacity or a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than 50% of the total voting power represented by the Company's then outstanding Voting Securities, (ii) during any period of two consecutive years, individuals who at the beginning of such period constitute the Board of Directors of the Company and any new director whose election by the Board of Directors or nomination for election by the Company's stockholders was approved by a vote of at least two thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, (iii) the stockholders of the Company approve a merger or consolidation of the Company with any other corporation other than a merger or consolidation which would result in the Voting Securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into Voting Securities of the surviving entity) at least 80% of the total voting power represented by the Voting Securities of the Company or such surviving entity outstanding immediately after such merger or consolidation, or the stockholders of the Company approve a plan of complete liquidation of the Company or an agreement for the sale or disposition

by the Company of (in one transaction or a series of related transactions) all or substantially all of the Company's assets, or (iv) any other event of a nature that would be required to be reported in response to Item 6(e) of Schedule 14A of Regulation 14A (or in response to any similar item on any similar schedule or form) promulgated under the Securities Exchange Act of 1934, as amended, whether or not the Company is then subject to such reporting requirement.

(d) For purposes of this Agreement, "Independent Legal Counsel" shall mean an attorney or firm of attorneys, selected in accordance with the provisions of Section 1(c) hereof, who shall not have otherwise performed services for the Company or Indemnitees within the last three years (other than with respect to matters concerning the rights of Indemnitees under this Agreement, or of other indemnitees under similar indemnity agreements).

(e) For purposes of this Agreement, a "Reviewing Party" shall mean any appropriate person or body consisting of a member or members of the Company's Board of Directors or any other person or body appointed by the Board of Directors who is not a party to the particular Claim for which Indemnitee are seeking indemnification, or Independent Legal Counsel.

(f) For purposes of this Agreement, "Voting Securities" shall mean any securities of the Company that vote generally in the election of directors.

11. Counterparts. This Agreement may be executed in one or more counterparts, each of which shall constitute an original.

12. Binding Effect; Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the parties hereto and their respective successors, assigns, including any direct or indirect successor by purchase, merger, consolidation or otherwise to all or substantially all of the business and/or assets of the Company, spouses, heirs, and personal and legal representatives. The Company shall require and cause any successor (whether direct or indirect by purchase, merger, consolidation or otherwise) to all, substantially all, or a substantial part, of the business and/or assets of the Company, by written agreement in form and substance satisfactory to Indemnitee, expressly to assume and agree to perform this Agreement in the same manner and to the same extent that the Company would be required to perform if no such succession had taken place. This Agreement shall continue in effect with respect to Claims relating to Indemnifiable Events regardless of whether Indemnitee continues to serve as a director, officer, employee, agent or fiduciary of the Company or of any other enterprise at the Company's request.

13. Attorneys' Fees. In the event that any action is instituted by Indemnitee under this Agreement or under any liability insurance policies maintained by the Company to enforce or interpret any of the terms hereof or thereof, Indemnitee shall be entitled to be paid all Expenses incurred by Indemnitee with respect to such action, regardless of whether Indemnitee is ultimately successful in such action, and shall be entitled to the advancement of Expenses with respect to such action, unless, as a part of such action, a court of competent jurisdiction over such action determines that each of the material assertions made by Indemnitee as a basis for such action was not made in good faith or was frivolous. In the event of an action instituted by or in the name of the Company under this Agreement to enforce or interpret any of the terms of this Agreement, Indemnitee shall be

entitled to be paid all Expenses incurred by Indemnitee in defense of such action (including costs and expenses incurred with respect to Indemnitee's counterclaims and cross-claims made in such action), and shall be entitled to the advancement of Expenses with respect to such action, unless, as a part of such action, a court having jurisdiction over such action determines that each of Indemnitee's material defenses to such action was made in bad faith or was frivolous.

14. Notice. All notices and other communications required or permitted hereunder shall be in writing, shall be effective when given, and shall in any event be deemed to be given (a) five (5) days after deposit with the U.S. Postal Service or other applicable postal service, if delivered by first class mail, postage prepaid, (b) upon delivery, if delivered by hand, (c) one business day after the business day of deposit with Federal Express or similar overnight courier, freight prepaid, or (d) one day after the business day of delivery by facsimile transmission, if delivered by facsimile transmission, with copy by first class mail, postage prepaid, and shall be addressed if to Indemnitee, at the Indemnitee's address as set forth beneath Indemnitee's signature to this Agreement and if to the Company at the address of its principal corporate offices (attention: Secretary) or at such other address as such party may designate by ten days' advance written notice to the other party hereto.

15. Consent to Jurisdiction. The Company and Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Delaware for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement and agree that any action instituted under this Agreement shall be commenced, prosecuted and continued only in the Court of Chancery of the State of Delaware in and for New Castle County, which shall be the exclusive and only proper forum for adjudicating such a claim.

16. Severability. The provisions of this Agreement shall be severable in the event that any of the provisions hereof (including any provision within a single section, paragraph or sentence) are held by a court of competent jurisdiction to be invalid, void or otherwise unenforceable, and the remaining provisions shall remain enforceable to the fullest extent permitted by law. Furthermore, to the fullest extent possible, the provisions of this Agreement (including, without limitations, each portion of this Agreement containing any provision held to be invalid, void or otherwise unenforceable, that is not itself invalid, void or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

17. Choice of Law. This Agreement shall be governed by and its provisions construed and enforced in accordance with the laws of the State of Delaware, as applied to contracts between Delaware residents, entered into and to be performed entirely within the State of Delaware, without regard to the conflict of laws principles thereof.

18. Subrogation. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights.

19. Duration. This Agreement shall continue until and terminate upon the later of (a) ten years after the date that Indemnitee shall have ceased to serve as a director or officer of the Company

or as a director, trustee, general partner, managing member, officer, employee, agent or fiduciary of any other enterprise, as applicable; or (b) one year after the final termination of any Claim, including any appeal, then pending in respect of which Indemnitee is granted rights of indemnification or advancement of Expenses hereunder and of any proceeding commenced by Indemnitee pursuant to Section 2(a) of this Agreement relating thereto.

20. Amendment and Termination. No amendment, modification, termination or cancellation of this Agreement shall be effective unless it is in writing signed by both the parties hereto. No amendment, alteration or repeal of this Agreement shall adversely affect any right of Indemnitee under this Agreement in respect of any action taken or omitted by such Indemnitee in relation to an Indemnifiable Event prior to such amendment, alteration or repeal. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

21. Integration and Entire Agreement. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto; provided, however, that this Agreement is a supplement to and in furtherance of the Company's Certificate of Incorporation, Bylaws and applicable law.

22. No Construction as Employment Agreement. Nothing contained in this Agreement shall be construed as giving Indemnitee any right to be retained in the employ of the Company or any of its subsidiaries.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

IRIDEX CORPORATION
a Delaware corporation

By _____
David I. Bruce
President and Chief Executive Officer

Address: 1212 Terra Bella
Mountain View, CA 94043

AGREED TO AND ACCEPTED BY:

_____
(signature)

_____
(print name)

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-3 (333-257807, 333-213094) and Form S-8 (333-257808, 333-233628, 333-226358, 333-219448, 333-197934, 333-183513, 333-161630, 333-155598, 333-147866, 333-135822, 333-127716, 333-117885, 333-107700, 333-97541, 333-67480, 333-45736, 333-86091, 333-57573, 333-32161) of our report dated March 10, 2022 relating to the consolidated financial statements of IRIDEX Corporation as of January 1, 2022, which appears in this Annual Report on Form 10-K.

/s/ BPM LLP

San Jose, California
March 15, 2022

EXHIBIT 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE AND FINANCIAL OFFICER
PURSUANT TO SECTION 13(a) or 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David I. Bruce, certify that:

1. I have reviewed this annual report on Form 10-K of IRIDEX Corporation;

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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any changes 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 and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 15, 2022

By: /s/ DAVID I. BRUCE
Name: David I. Bruce
Title: President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION OF PRINCIPAL ACCOUNTING OFFICER
PURSUANT TO SECTION 13(a) or 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934
AS ADOPTED PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Fuad Ahmad, certify that:

1. I have reviewed this annual report on Form 10-K of IRIDEX Corporation;

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 and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any changes 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 and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 15, 2022

By: /s/ FUAD AHMAD
Name: Fuad Ahmad
Title: Interim Chief Financial Officer
(Principal Financial Officer)

EXHIBIT 32.1

CERTIFICATION OF PRINCIPAL EXECUTIVE AND FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, David I. Bruce, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, certify that the Annual Report of IRIDEX Corporation on Form 10-K for the fiscal year ended January 1, 2022 (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of IRIDEX Corporation.

Date: March 15, 2022

By: /s/ DAVID I. BRUCE
Name: David I. Bruce
Title: President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 32.2

CERTIFICATION OF PRINCIPAL ACCOUNTING OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Fuad Ahmad, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, certify that the Annual Report of IRIDEX Corporation on Form 10-K for the fiscal year ended January 1, 2022 (i) fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and (ii) that information contained in such Annual Report on Form 10-K fairly presents, in all material respects, the financial condition and results of operations of IRIDEX Corporation.

Date: March 15, 2022

By: /s/ FUAD AHMAD
Name: Fuad Ahmad
Title: Interim Chief Financial Officer
(Principal Financial Officer)