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

SCHEDULE 14A

(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT
SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934
(Amendment No.____)

Filed by the Registrant ☑ Filed by a Party other than the Registrant ☐

Check the appropriate box:
☐ Preliminary Proxy Statement
☐ Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
☐ Definitive Proxy Statement
☑ Definitive Additional Materials
☐ Soliciting Material Pursuant to § 240.14a-12

ISOPLEXIS CORPORATION

(Name of Registrant as Specified in its Charter)

(Name of Person(s) Filing Proxy Statement if Other Than the Registrant)

Payment of Filing Fee (Check all boxes that apply)
☑ No fee required
☐ Fee paid previously with preliminary materials
☐ Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11

SUPPLEMENT NO. 2, DATED MARCH 2, 2023
(to the Joint Proxy Statement/Prospectus dated February 13, 2023)

These definitive additional materials are being filed to update and supplement the definitive joint proxy statement/prospectus (the "Joint Proxy Statement/Prospectus") filed by IsoPlexis Corporation, a Delaware corporation ("IsoPlexis"), with the U.S. Securities and Exchange Commission as a definitive proxy statement on Schedule 14A on February 13, 2023, and initially mailed to stockholders of IsoPlexis on or about February 14, 2023.

This supplement to the Joint Proxy Statement/Prospectus (this "Supplement") is being filed by IsoPlexis with the U.S. Securities and Exchange Commission to supplement certain information contained in the Joint Proxy Statement/Prospectus. Except as otherwise set forth below, the information set forth in the Joint Proxy Statement/Prospectus remains unchanged.

This Supplement should be read in conjunction with the Joint Proxy Statement/Prospectus. The information in this Supplement modifies and supersedes, in part, the information in the Joint Proxy Statement/Prospectus. If there is any inconsistency between any information in the Joint Proxy Statement/Prospectus and this Supplement, you should rely on the information in this Supplement.

This Supplement is not complete without, and may not be utilized except in connection with, the Joint Proxy Statement/Prospectus, including any supplements and amendments thereto.

You should read carefully and in their entirety this Supplement and the Joint Proxy Statement/Prospectus and all accompanying annexes and exhibits. In particular, you should review and consider carefully the matters discussed under the heading "Risk Factors" beginning on page 32 of the Joint Proxy Statement/Prospectus.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities to be issued in connection with the merger (as defined in the Joint Proxy Statement/Prospectus) or determined if the Joint Proxy Statement/Prospectus or this Supplement is accurate or complete. Any representation to the contrary is a criminal offense.

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, DC 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

OR

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

For the transition period from _____ to _____

Commission File Number 001-40894

IsoPlexis Corporation

(Exact name of Registrant as Specified in its Charter)

Delaware	**46-2179799**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**

35 NE Industrial Road, Branford, CT 06405
(Address of principal executive offices and zip code)

(203) 208-4111
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.001 per share	ISO	The NASDAQ Stock Market LLC

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

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

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit 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 definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

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

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

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

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant on June 30, 2022, the last business day of the registrant’s most recently completed second fiscal quarter was $13,180,510 based upon the closing sale price of the Company’s common stock as reported on the NASDAQ Stock Market for that date.

The registrant had outstanding 39,763,101 shares of Common Stock, par value $.001 per share, as of February 27, 2023.

DOCUMENTS INCORPORATED BY REFERENCE

None.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K ("Form 10-K") contains "forward-looking statements." These statements are made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies and other future conditions. Such forward-looking statements may include, without limitation, statements about future opportunities for us and our products and services, our future operations, financial or operating results, anticipated business levels, future earnings, planned activities, anticipated growth, market opportunities, strategies, competitions and other expectations and targets for future periods. In some cases, you can identify forward-looking statements because they contain words such as "anticipate," "believe," "estimate," "expect," "intend," "may," "predict," "project," "target," "potential," "seek," "will," "would," "could," "should," "continue," "contemplate," "plan," and other words and terms of similar meaning.

Forward-looking statements are subject to known and unknown risks and uncertainties, many of which may be beyond our control. We caution you that forward-looking statements are not guarantees of future performance or outcomes and that actual performance and outcomes may differ materially from those made in or suggested by the forward-looking statements contained in this Form 10-K. In addition, even if our results of operations, financial condition and cash flows, and the development of the markets in which we operate, are consistent with the forward-looking statements contained in this Form 10-K, those results or developments may not be indicative of results or developments in subsequent periods. New factors emerge from time to time that may cause our business not to develop as we expect, and it is not possible for us to predict all of them. Factors that could cause actual results and outcomes to differ from those reflected in forward-looking statements include, among others, the following:

- risks associated with our pending merger with Berkeley Lights, Inc. ("Berkeley Lights");
- estimates of our addressable market, market growth, future revenue, expenses, capital requirements and our needs for additional financing;
- the implementation of our business model and strategic plans for our products and technologies;
- competitive companies and technologies and our industry;
- our ability to manage and grow our business by expanding our sales to existing customers or introducing our products to new customers;
- our ability to develop and commercialize new products;
- our ability to establish and maintain intellectual property protection for our products or avoid or defend claims of infringement;
- the performance of third party suppliers;
- our ability to hire and retain key personnel and to manage our future growth effectively;
- our ability to obtain additional financing in future offerings;
- the volatility of the trading price of our common stock;
- our expectations regarding use of proceeds from our initial public offering;
- the potential effects of government regulation;
- the impact of COVID-19 on our business; and
- our expectations about market trends.

For a further discussion of these and other factors that could impact our future results, performance or transactions, see Item 1A “Risk Factors” of this Form 10-K and our other filings with the Securities and Exchange Commission (the “SEC”). Given these uncertainties, you should not place undue reliance on these forward-looking statements.

You should read this Form 10-K and the documents that we reference within it completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in this Form 10-K by these cautionary statements. Except as required by law, we undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise.

Unless the context otherwise requires, we use the terms “IsoPlexis,” the “Company,” “we,” “us” and “our” in this prospectus to refer to IsoPlexis Corporation and our consolidated subsidiaries.

Channels for Disclosure of Information

Investors and others should note that we may announce material information to the public through filings with the SEC, our website (www.isoplexis.com), press releases, public conference calls, public webcasts and our social media accounts (including https://www.linkedin.com/company/isoplexis-inc-/). We use these channels to communicate with our customers and the public about the Company, our products, our services and other matters. We encourage our investors, the media and others to review the information disclosed through such channels as such information could be deemed to be material information. The information on such channels, including on our website and our social media accounts, is not incorporated by reference in this Form 10-K and shall not be deemed to be incorporated by reference into any other filing under the Securities Act (as defined below) or the Exchange Act (as defined below), except as expressly set forth by specific reference in such a filing. Please note that this list of disclosure channels may be updated from time to time.

Part I

Item 1. Business

Overview

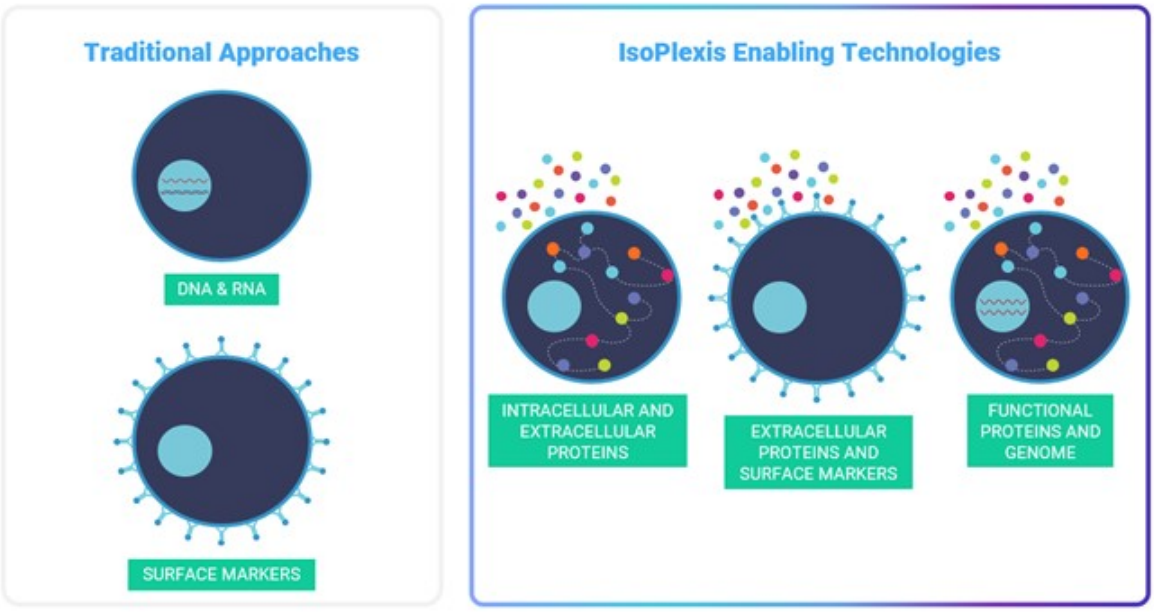
IsoPlexis is empowering labs to leverage the cells and proteome changing the course of human health. Our systems assess cell behavior, providing functional data that contributes to understanding mechanisms of disease progression, treatment resistance and therapeutic efficacy to advance human health. We are a life sciences company building solutions to accelerate the development of curative medicines and personalized therapeutics. Our award-winning single-cell proteomics systems reveal unique biological activity in small subsets of cells, allowing researchers to more directly assess *in vivo* biology and develop more precise and personalized therapies.

We are enabling deeper access to *in vivo* biology and driving durable and potentially transformational research on disease in a new era of advanced medicine. We believe our platform is the first to employ both proteomics, or the study of proteins and their functions, and single-cell biology in an effort to fully characterize and link cellular function to patient outcomes by revealing mechanisms underlying treatment response and disease progression. Our proteomics platform, which includes instruments, chip consumables and software, provides an end-to-end solution to reveal a more complete view of protein function both at a global and an individual cellular level, using the same instrument. Since our commercial launch in June of 2018, our platform has been adopted by all of the top 15 global biopharmaceutical companies by revenue and three-fourths of the National Cancer Institute (“NCI”) designated comprehensive cancer centers in the United States to help develop more durable therapeutics, overcome treatment resistance, and predict patient responses for advanced immunotherapies, cell therapies, gene therapies, vaccines, and regenerative medicines. While our initial focus has been on developing applications of our platform for cancer immunology and cell and gene therapy, we are now expanding our capabilities to include applications for infectious diseases, inflammatory conditions, and neurological diseases.

Bulk methods of proteomic analysis, which analyze proteins in bulk samples that could be made up of many different types of cells, can be helpful to identify differences between groups in samples such as plasma and cerebrospinal fluid (“CSF”). But because individual cells, even of the same cell type (such as tumor cells or immune cells) can act very differently, single-cell resolution is necessary to gain a better understanding of cell function. Single-cell biology provides deep insights into variations among each individual cell’s behavior, such as underlying disease activity and therapeutic response, and is becoming a valuable tool for life science research. Single-cell functional analysis provides additional insight that can be missed by traditional bulk proteomic analyses, which delivers average cell activity in the aggregate. For example, in cell therapy, where heterogeneous populations of immune cells are engineered to combat tumors, traditional bulk proteomic methods can detect average differences between products, while single-cell functional analysis can identify the unique immune cell subsets that contribute most significantly to effective treatment responses. At the same time, while the genome of single cells has been explored in depth, genomics alone has limitations on accurately predicting treatment resistance, which often results from tumor protein signaling adaptations rather than genetic aberrations. In oncology, while genomics has been used to reveal mutations that reside along druggable pathways, therapeutics targeting these pathways have only marginally improved patient outcomes, with almost universal and rapid development of drug resistance. We believe that our platform can capture a more complete view of the functional biological drivers of disease and therapeutic response.

We designed our platform to reveal functional protein biology and cellular signaling networks to accelerate the development of advanced medicines. The drivers of efficacy and toxicity are heavily impacted by cytokines, or extracellular functional proteins, through which certain individual cells send and receive signals. Additionally, disease progression and treatment resistance are heavily impacted by the intracellular signaling proteins, in particular phosphoproteins, which dictate the functional state of any cell. We believe that directly capturing the full range of intracellular and extracellular functional proteins is critical to analyzing the efficacy of therapies, identifying biomarkers suitable for druggable targets, and modifying therapeutics that are not generating the intended result. Our technology fills a critical knowledge gap by directly detecting the full range of intracellular and extracellular functional proteins within a sample, using the same instruments to connect bulk and single-cell functional cell analysis.

Figure 1. The figure below represents the evolution of single-cell biology from the study of the genomic blueprint of a cell—its DNA and RNA—through the functional representation of each cell's activity—its extracellular and intracellular proteins. This evolution towards the proteome is enabling greater application to translational medicine.



Our platform is an end-to-end solution comprised of our proprietary IsoLight and IsoSpark instruments, IsoCode and CodePlex chip consumables, and IsoSpeak software. Our IsoLight and IsoSpark instruments are designed to be automated benchtop proteomic hubs with integrated software that decreases the need for manual analysis steps. Our IsoCode chips utilize our core technology leveraging our proteomic barcoding to capture single-cell protein information. Our CodePlex chips leverage our core technology to assay multiplexed bulk proteins from very low volumes. Our IsoSpeak software interprets these data and is capable of rapidly returning comprehensive data figures, allowing users to quickly evaluate results, and advanced visualizations, which facilitate exploring complex data sets for additional insights. We believe that our platform overcomes many of the limitations of traditional proteomic workflows, which can be capital-intensive, time-consuming and laborious, require multiple instruments and many manual steps that increase the opportunity for error and variability, and may only be capable of analyzing small numbers of functional proteins at a time. Our platform supports multiple applications, including in cancer immunology, cell and gene therapy, infectious diseases, inflammatory conditions, and neurological diseases.

Figure 2. Our platform is comprised of instruments, chip consumables, and software.

IsoCode and CodePlex Chip Technology Overview

Chip Solutions	*Function*	*Applications*
Extracellular Protein Detection	Enables the discovery of better biomarkers, including rare cells that have the potential to drive therapeutic persistence, potency, and durability	**Translational medicine** • Cancer immunology • Inflammation • Cell therapies • Infectious disease • Targeted therapies
Intracellular Protein Detection	Measures cellular protein-to-protein interactions and adaptive resistance pathways to identify resistance earlier and enable earlier selection of potential treatments	**Discovery** • Combinatorial therapies • Kinase inhibitors • Targeted therapies • Cell therapies

Our current product offering supports a variety of applications that are broadly used for translational, preclinical and clinical development of advanced medicines, representing an initial $12 billion addressable market opportunity based on management estimates. This cumulative market spend accounts for an installed base of approximately 55,000 instruments, in line with mature protein and cell biology technologies such as flow cytometry and multiplexed proteomics. Our relevant end users span the range of biopharmaceutical companies and academic and research institutions worldwide, which in the aggregate cover approximately 5,500 advanced medicine programs in both preclinical and clinical stages. In addition to our currently targeted addressable market opportunity in advanced medicines, we have expanded our capabilities with intracellular protein detection IsoCode chip products, which are designed to improve discovery biology as a bridge to the earlier development of advanced medicines. These products have been used to identify mechanisms of therapeutic resistance in cancer cells, helping to provide mechanistic insights that can inform treatment decisions. We believe this represents an incremental $12 billion addressable market opportunity. Expanding our chip solution portfolio is a key factor in enabling us to expand our capabilities into applications for infectious diseases, inflammatory conditions, and neurological diseases.

As of December 31, 2022, we have placed 286 systems globally, including at each of the top 15 global biopharmaceutical companies by revenue and approximately three-fourths of the comprehensive cancer centers in the United States. As of December 31, 2022, we employed a commercial team of approximately 100 team members. We market and sell our platform, which is currently marketed to customers as research use only, through a direct sales channel in North America and specific regions in Europe. Additionally, we utilize thirteen distributor relationships to market and sell our products in Europe, North America, the Middle East and Asia-Pacific.

Our revenue to date has been driven primarily by sales of our instruments and chip consumables. Revenue for the years ended December 31, 2022 and 2021, was $16.8 million and $17.3 million, respectively. For the year ended December 31, 2022, our sales to end-markets of biopharmaceutical companies and academic and research institutions represented approximately 60% and 40% of our total sales, respectively. We generated net losses of $106.0 million and $81.6 million for the years ended December 31, 2022 and 2021, respectively.

Pending Acquisition by Berkeley Lights, Inc.

On December 21, 2022, we entered into an Agreement and Plan of Merger (the “Merger Agreement”) with Berkeley Lights and Iceland Merger Sub Inc., a Delaware corporation and a wholly owned subsidiary of Berkeley Lights (“Merger Sub”). Pursuant to the Merger Agreement and subject to the satisfaction or waiver of the conditions set forth therein, Merger Sub will be merged with and into IsoPlexis, with IsoPlexis continuing as the surviving corporation and a wholly-owned subsidiary of Berkeley Lights (the “Merger”). The consummation of the Merger is subject to customary closing conditions, including the approval by Berkeley Lights stockholders of the issuance of shares of Berkeley Lights common stock to IsoPlexis stockholders in connection with the Merger and the adoption of the Merger Agreement by IsoPlexis’ stockholders.

The IsoPlexis Advantage

We designed our platform to reveal functional protein biology and cellular signaling networks at single-cell and bulk resolution to accelerate the development of advanced medicines and improve patient outcomes by revealing treatment response and disease progression. As of December 31, 2022, use of our platform has generated approximately 55 predictive data sets and our technology has been referenced in approximately 110 publications. We believe that our platform offers several advantages over existing proteomic and cellular analysis technologies, including:

Direct single-cell analysis of functional proteins: We designed our platform to directly measure the functional proteins from each cell in a highly multiplexed manner. For example, our platform is capable of directly measuring the proteomic activity of each cell—such as T cells, macrophages, or cancer cells—providing highly correlative clinical and preclinical immune biomarkers. In contrast, while technologies such as RNA sequencing provide information useful for estimating cellular protein function, the correlation between such information and functional proteins is relatively low, making it difficult to translate the information from these technologies into insights for therapeutic applications. Similarly, flow cytometry cannot detect the highly multiplexed extracellular functional proteins from each cell that may directly correlate to *in vivo* response.

Multiple proteomic applications on a single system: We designed our technology to provide highly multiplexed information from bulk and single-cell extracellular proteome and the intracellular proteome, all on the same system. Our approach, which leverages a single system, is designed to increase efficiency and accessibility across many areas of advanced cellular analysis for a wide range of applications.

Rapid data analysis and insights: Gathering insights from current single-cell technologies can take months due to the limitations of current solutions in collecting and analyzing data. Our IsoSpeak software provides advanced automated data analysis with a push-button user interface that can be run with limited technological expertise and is capable of generating insights and comprehensive data figures within hours, that are in a format that would be suitable for inclusion in a research publication submission. By streamlining and accelerating the data collection process, we believe our platform could potentially help our customers get actionable results faster and shorten research timelines.

Ultra-low sample volume requirements: Many traditional bulk proteomic workflows require relatively large sample volume, which can be a challenge for customers since samples are often very limited. We designed our platform to maximize the utility of the limited sample volume that our customers obtain from their clinical trials or animal models. Our IsoCode and CodePlex chip consumables require sample volumes as small as 8 µL, allowing for multiplexed analysis of samples that are difficult to obtain, such as cerebrospinal fluid and tracheal samples.

Simplified workflow and minimal footprint: Many traditional bulk proteomic workflows and single-cell workflows are laborious and time consuming, requiring many manual steps across multiple instruments performed by skilled technicians. After a sample is loaded onto one of our chips, which is then inserted into our IsoLight or IsoSpark instrument, our platform automates all protein detection steps in a walk away fashion, saving time and laboratory resources and reducing opportunities for error or variability. Our automated ELISA, or a standard immunoassay, workflow reduces the need for specialized technicians to run experiments or interpret results and reduces overhead. Without our platform, similar workflows would require multiple instruments that would occupy a substantially larger combined footprint compared to the benchtop placement of our instruments, which have a total footprint of 28.5 inches (in the case of the IsoLight) or 18 inches (in the case of the IsoSpark). We believe ease of use of our fully automated benchtop instruments, combined with their minimal footprint, drives customers to adopt our platform at a lower system and labor cost.

Our Platform

Our platform is an end-to-end solution comprised of our proprietary IsoLight and IsoSpark instruments, IsoCode and CodePlex chip consumables, and IsoSpeak software, spanning multiple applications. Once a sample is loaded onto our proprietary “proteomic barcoded” IsoCode or CodePlex chips, highly sensitive software-enabled optics quantify the proteins associated with each single-cell through individualized antibody-based proteomic reactions.

Our platform leverages a series of chambers that capture single cells, where each separate chamber enables multiplexed protein detection reactions simultaneously in a parallelized fashion. The highly multiplexed number of functional proteins per cell quantified by our platform’s proteomic barcoding has led to correlative insights in cancer immunology, cell and gene therapy, infectious diseases, inflammatory conditions, and neurological diseases.

Our Instruments

Our IsoLight and IsoSpark instruments, both Red Dot Design Award winners, run our IsoCode and CodePlex chips, enabling high-throughput analysis of functional proteins from single cells and low sample volume bulk with a fully automated workflow. The IsoLight has a footprint of 28.5 inches while the IsoSpark is a compact 18 inches. Both instruments are comprised of four modules:

- an optical system to assess protein expression;

- a fluidic system to enable the automated ELISA workflow that allows the user to insert samples and retrieve answers with limited hands on time;
- a mechanical system to enable analysis of eight samples for single-cell analysis or 96 samples for bulk analysis in the IsoLight, or four samples for single-cell analysis or 48 samples for bulk analysis in the IsoSpark, simultaneously; and
- a thermal system to provide for the incubation of single cells to capture their proteomic reactions.

Our Chip Consumables

IsoCode chips: Our highly multiplexed chip solutions for single-cell functional proteomics

Our IsoCode single-cell chip solutions provide highly multiplexed applications to capture the functional extracellular and intracellular proteome.

Our single-cell extracellular protein detection chip solution, which we also refer to as our single-cell extracellular proteome solution, works through a series of steps:

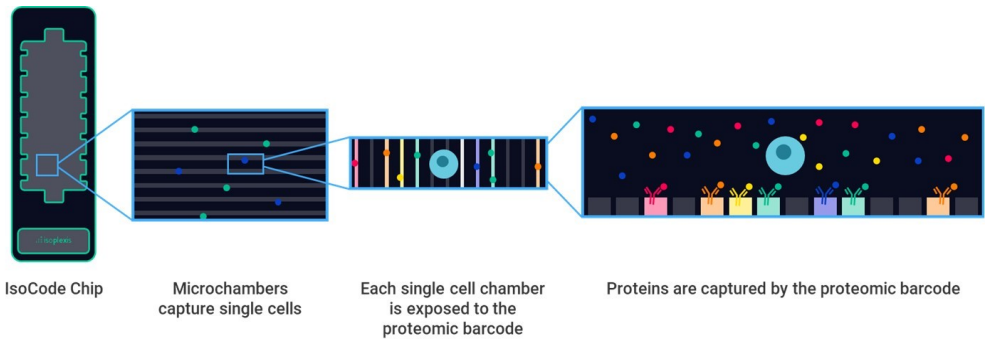
- first, the sample is prepared and retained in suspension;
- second, live cells are loaded onto the chip; and
- third, the live cells housed in the single-cell chambers secrete their extracellular proteins, which are captured by our proteomic barcode.

Similarly, our single-cell intracellular protein detection chip solution, which we also refer to as our single-cell intracellular proteome solution, works through a series of similar steps:

- first, the sample is prepared and retained in suspension;
- second, live cells are loaded onto the chip; and
- third, these live cells are lysed within each single-cell chamber to release their intracellular components, which are then captured by our proteomic barcode.

In each case, our IsoLight or IsoSpark then detects the expression of these proteins per cell and determines the protein profile of each single-cell.

Figure 3. The IsoCode chip solution workflow



CodePlex chips: Our multiplexed solutions for ultra-low volume bulk samples

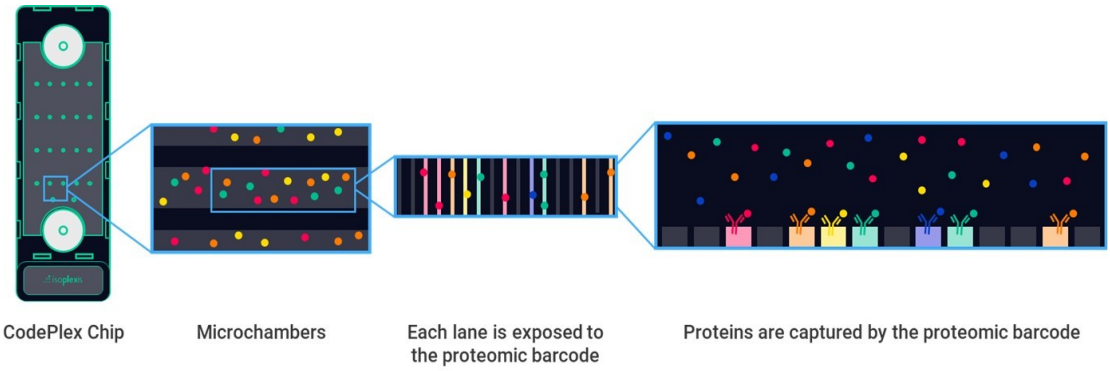
Our CodePlex chip solutions provide highly multiplexed applications to capture the functional extracellular and intracellular proteome from low volume of bulk protein samples, rather than from single cells. These extracellular and intracellular proteome solutions work through a series of steps:

- first, the protein sample is retained with minimal preparation or dilution;

- second, the protein sample is loaded into the chip through various ports to allow for multiple samples per chip; and
- third, each sample is retained in its respective chamber in which the proteins are captured by our proteomic barcode.

Our IsoLight or IsoSpark then detects the relative concentration of these proteins in bulk and determines the protein profile of each sample.

Figure 4. The CodePlex chip solution workflow



Our Software

Our IsoSpeak software, an Edison Award winner, takes complex high-dimensional data and automates analysis with an intuitive push-button user interface to deliver same-day single-cell and bulk proteome visualizations without the need for highly specialized informatics professionals. The software works by retaining the images of the proteins detected on the IsoLight or IsoSpark, analyzing the images for expression of those proteins using fluorescence, and then converting the information into actionable insights through various data visualizations.

Our Services

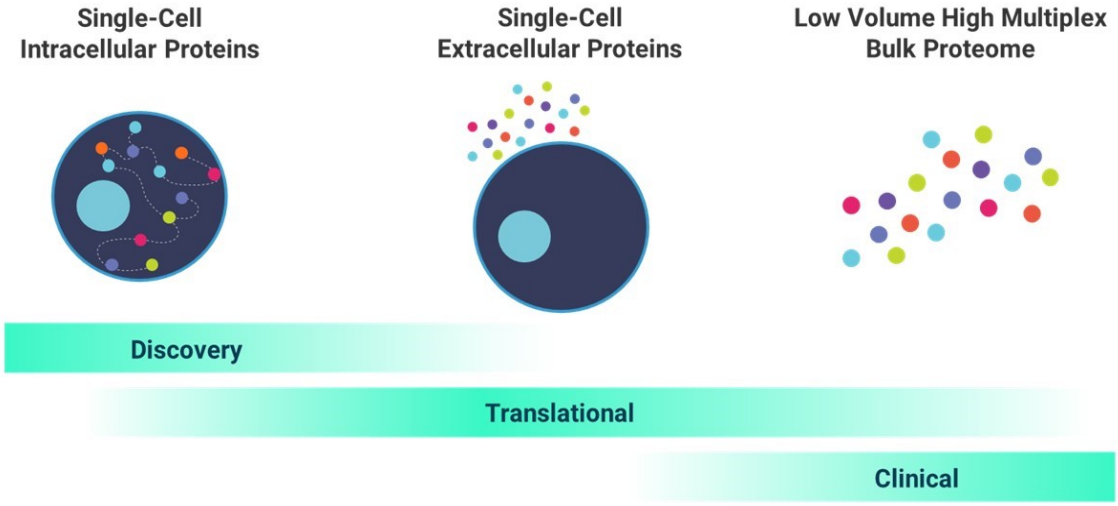
In addition to selling our products, we leverage our platform to provide research support and services to our customers. We process samples from certain of our customers using our platform and return to these customers the immune response data generated from their samples. We also provide post-warranty services to our customers who have purchased our instruments.

Our Applications across the Drug Development Continuum

Our IsoCode single-cell extracellular proteome solution measures the extracellular functional proteins from each cell in a highly multiplexed manner, allowing for complete single-cell functional characterization. This solution enables the comprehensive profiling of the extracellular function of a wide variety of immune cell types, resulting in the generation of correlative data sets in the fields of cancer immunology and cell and gene therapy, which have been our initial areas of focus. The differentiated information that has been obtained has been applied preclinically to evaluate immune and cell therapy candidates and processes. Additionally, it has generated key biomarkers of immune response in early clinical studies and forms the basis of our initial addressable market for advancing preclinical and clinical trials within advanced medicines. This chip solution has been leveraged by a number of high impact clinical studies published in reputable scientific journals such as *Cell* and *Blood*. See "—Customer Case Studies."

Our IsoCode single-cell intracellular proteome solution simultaneously measures multiple intracellular protein signaling networks at the single-cell level, allowing for detection of critical protein-protein interactions and signaling networks in rare cells and cell subsets. These various protein signaling networks form the basis of both functional and dysfunctional activity in a wide variety of cell types. Our single-cell intracellular proteome solution enables a better understanding of these signaling networks, which can then be applied to treat dysfunction in tumor cells and to facilitate activation of key immune cell types earlier in the therapeutic discovery process. The ability to target these signaling networks provides access to serve a discovery-focused market, enabling us to address opportunities in the fields of infectious diseases, inflammatory conditions, and neurological diseases.

Our CodePlex bulk extracellular proteome and intracellular proteome solutions provide means to achieve highly multiplexed, low sample volume proteomics. CodePlex requires up to 10 times less sample volume versus other comparable methods of analyses, opening up opportunities for precious sample analysis in preclinical and clinical studies. The CodePlex solution enables automated proteomic analyses on customers' benchtops within one IsoLight or IsoSpark system, eliminating the need for multi-instrument workflows that require technician expertise to run. Our CodePlex solution is used across multiple applications for assaying proteins from blood, cerebrospinal fluid, and tracheal samples in both preclinical and clinical studies in the fields of cancer immunology and cell and gene therapy. Further, we expect that our initial entry into the clinical diagnostics market will start with our CodePlex solution as it provides accessibility to end users through automation.



Customer Case Studies

Each of the case studies described below leveraged our IsoCode single-cell extracellular proteome solution by detecting immune cell protein responses within our IsoCode chip and detecting unique extracellular protein signatures from subsets of these immune cells that predicted or correlated with treatment response or disease progression. The unique extracellular protein signature in each case study was defined by the ability of the cells to produce multiple proteins simultaneously, which we refer to as a sample having polyfunctional strength, or PSI.

Analyzing treatment response and product potency in CAR-T cell therapy study

As published in *Blood*, in a 20 subject non-Hodgkin lymphoma study sponsored by Kite Pharma, researchers using our platform determined that the PSI of each CAR-T cell therapy product, prior to infusion, had a significant association with complete or partial patient response to anti-CD19 CAR-T therapy. Other pre-infusion metrics tested in this study using alternative methods were not predictive. Through this research, we were able to highlight the important role a functionally versatile subpopulation of CAR-T cells may play in the potency of anti-CD19 therapies. We believe product-based readouts like this one have the potential to enable more predictive and scalable manufacturing and product release of cell therapies globally.

Early indicators of response or relapse in CAR-T therapy optimization

As published in *Nature*, in a CD19 and CD22 bispecific CAR study, researchers using our platform showed that certain functional protein production was associated with early signs of response to CAR-T therapies or signs of relapse in patients with large B-cell lymphoma. The researchers found that functional protein production could be a meaningful attribute to predict the potency of cell therapies. We believe product-based readouts like this one have the potential to guide cell therapy manufacturing and optimization as a critical quality attribute.

Analyzing treatment response and product potency in TIL therapy study

As published in *Nature*, in a study of adoptive cell therapy using tumor-infiltrating lymphocytes ("TILs") for lung cancer, researchers using our platform determined that polyfunctionality of CD8 T cells was associated with the impact of

the infusion of TILs on immune response. Recognizing that PSI is a metric for efficacy of cell therapies, the researchers compared the ability of T cells to secrete functional proteins before and after TIL infusion and found that polyfunctionality increased after TIL treatments. Our platform's functional readouts have been shown to be critical for understanding the potency and durability of cell therapies.

Understanding progression of disease and inflammation to enable therapy development in a COVID-19 study

As published in *Cell*, in collaboration with Merck & Co. and the Institute for Systems Biology, researchers using our platform identified that the PSI of peripheral monocytes increased with COVID-19 severity, while CD4+ T cells, CD8+ T cells and NK cell percentages decreased, revealing which of these cells contributed to the pro-inflammatory environment in moderate to severe cases of COVID-19. Our platform's characterization of immune biomarkers at each stage of COVID-19 progression is helping researchers to identify and develop treatments and critical prognostic biomarkers, based on functional profiles of critical subsets of immune cells.

Additional studies have shown correlations between biomarkers identified using our platform and the ability to predict responses across different types of immunotherapy studies.

Our Market Opportunity

Our current product offering supports a variety of applications which are broadly used for translational, preclinical and clinical development of advanced medicines, representing an initial $12 billion addressable market opportunity based on management estimates. This cumulative market spend accounts for an installed base of approximately 55,000 instruments, in line with mature protein and cell biology technologies such as flow cytometry and multiplexed proteomics. Within this addressable market, our relevant end users span the range of biopharmaceutical companies and academic and research institutions worldwide, which cover approximately 5,500 advanced medicines programs in both preclinical and clinical stages.

In addition to our currently targeted addressable market opportunity in advanced medicines, we have recently expanded our capabilities with our intracellular protein detection IsoCode chip products, which are designed to improve discovery biology as a bridge to earlier development of advanced medicines. We believe this represents an incremental $12 billion addressable market opportunity. Additionally, we are pursuing a range of integrated applications around sequencing and proteomic analytes from single cells, which will enable further applications for discovery biology. Expanding our chip solution portfolio is a key factor in enabling us to expand our capabilities into applications for infectious diseases, inflammatory conditions, and neurological diseases. Furthermore, our long-term strategy is ultimately to add additional applications serving clinical diagnostics research that will allow us to serve additional markets we believe to be worth approximately $10 billion. We expect that our initial entry into the clinical diagnostics market will start with our CodePlex solution for quantitative low-volume bulk proteomics as it provides accessibility to end users through automation. We believe investments in these areas will provide access to a potential $34 billion total addressable market.

Our Growth Strategy

Our goal is to establish our platform as a leading proteomic workflow solution in the life sciences industry. In pursuit of that goal, the key elements of our growth strategy include:

Promoting our platform as the standard for single-cell proteomic analysis

We believe that our platform is a critical tool that provides new and accessible layers of biological data at the single-cell level, and the ability to capture the functional extracellular and intracellular proteome from single cells for the first time. We believe that our platform is well positioned to fundamentally advance therapeutic discovery and development. We intend to continue promoting our instruments, chip consumables, and software to drive awareness of the broad utility of our platform for development of advanced medicines and the discovery of biomarkers.

Expand the installed base of our IsoLight and IsoSpark instruments with new and existing customers

As of December 31, 2022, we have placed 286 systems worldwide within leading biopharmaceutical companies and academic and research institutions in North America, Europe and Asia-Pacific. Utilizing our multi-channel sales and distribution network, we intend to continue engaging with the global life sciences community to grow our installed base and expand the number of instruments within organizations that are already utilizing our technology to advance their research and therapeutic development. Outside of North America, we intend to leverage our distributor partnerships across four continents to expand our presence, with an emphasis on the China market.

Drive adoption of our existing applications

We founded our company to help solve critical challenges to accelerating advanced medicines and, since our inception, we have developed multiple applications spanning cancer immunology, cell and gene therapy, infectious diseases, inflammatory conditions, and neurological diseases. We intend to continue promoting our platform to help meet the urgent need to develop new therapeutics and accelerate development timelines across these applications. We intend to continue promoting the discoveries and data published by our customers, which we believe will further reinforce the value of our platform and drive additional adoption of our platform for use across these applications.

Develop new applications across multiple cell types, therapeutic classes, and indications

As we continue to deploy our platform, we intend to concurrently expand the breadth of applications for our technologies to encourage increased use of our platform across our addressable markets. At present, we believe we have the ability to reveal insights in functional proteomics in new therapeutic classes and indications, such as infectious diseases, inflammatory conditions, and neurological diseases. We continue to develop new methods to allow for the analysis of additional cell types on our platform, allowing IsoPlexis to expand into additional research areas. Our goal is to continue innovating and bringing new products to market as new areas of therapeutic development emerge.

Expand adoption of our platform into new geographical markets

We currently market and sell our technology with an in-house commercial team in the United States, China and Europe. We are also utilizing our distribution network to market and sell across multiple countries, including Australia, Belgium, Canada, China, Czech Republic, France, Germany, Italy, Israel, Japan, Portugal, Singapore, South Korea, Spain, Switzerland, and the United Kingdom. We intend to further expand our international presence by growing our distribution networks in Brazil, India, Mexico and beyond.

Integrate sequencing biology with proteomics

We intend to further develop our product roadmap to integrate sequencing and functional proteomic biology from single cells to enable novel applications in discovery biology through our newest product, Duomic. Currently, single-cell solutions are limited in their ability to detect genomic and transcriptomic information and functional proteins concurrently from single cells. Based on our core technology leveraging our proteomic barcoding, Duomic utilizes our existing instrumentation to give researchers the ability to simultaneously measure functional protein and gene expression levels from the same cell. We believe that the ability to modulate and modify genomic activity in cells and detect genomic impacts can be enhanced by verifying the proteomic, or functional, impacts concurrently from the same cell. Our technology’s ability to reveal this multi-omic connectivity across cellular pathways may be able to provide earlier therapeutic insights for developers of advanced medicines.

Our Commercial Organization

We launched our first product in June 2018 and have sold our products primarily to biopharmaceutical companies and academic and research institutions. Market adoption has accelerated since our initial commercial launch with 77 instruments sold in 2022 and 98 instruments in 2021. We have a global customer base with 207 systems placed in North America, 29 in EMEA and 50 in Asia-Pacific, in each case as of December 31, 2022.

We continue to invest in our commercial team of approximately 100 people as of December 31, 2022, including 25 sales representatives. Beyond our direct salesforce, we have relationships with thirteen distributors covering countries including Australia, Belgium, Canada, China, Czech Republic, France, Germany, Italy, Israel, Portugal, Japan, Singapore, South Korea, Spain, Switzerland, and the United Kingdom.

Continued investment in research and development is critical to the commercialization of our future products. Our deep product and application roadmap represents one of the key growth drivers of instrument and consumable sales. We intend to expand our intellectual property and research capabilities through internally developed efforts, in conjunction with strategic partners and by acquiring technology.

Our Product Development Approach

Our research and development teams, located in Branford, Connecticut, design and develop our proprietary products utilizing and combining expertise in single-cell biology, fluidics, optics, informatics, hardware and software engineering. Our collaborative approach across disciplines helps lead to advancements in technology development intended to provide

clarity on new layers of complex biology to advance curative medicines. To complement our growth strategy, both in the near term and long term, we plan to focus our research and development on:

New applications

We intend to focus our research and development efforts on developing new high value, highly differentiated applications that unlock new proteomically driven biology and drive the future of disease understanding and development of advanced medicines. Our focus in the near term includes new applications for infectious diseases, inflammatory conditions, and neurological diseases.

New panels and protocols

We intend to focus on developing new panels, protocols, and analyte targets for each application family to cover the full range of our customers' biological needs. Our research and development efforts in this area are centered on expanding our menu of test panels for single-cell extracellular proteomics, single-cell intracellular proteomics and low volume bulk proteomics to include, for example, T cell signaling panels for single-cell and low volume bulk analysis. Our focus in the near term also includes releasing protocols for additional types of immune cells, tumor cells and neural cells.

Integrating proteomics with sequencing-based technologies

We also intend to focus on integrating proteomics technologies with sequencing-based technologies to extend existing capacities in single-cell biology through our new multi-omic product, Duomic. Based on our core technology leveraging our proteomic barcoding, Duomic utilizes our existing instrumentation to give researchers the ability to simultaneously measure functional protein and gene expression levels from the same cell. We believe that this integration will enable a better understanding of the connections between the transcriptome and the proteome, and will have applications for cancer immunology, cell and gene therapy and neurological diseases.

Additionally, we also intend to focus on developing software that automates and streamlines advanced analytics, enabling immediate insights, and working with clinical partners to put in place validated tests that build a long-term path to clinical usage of our solutions.

Our research and development costs were $23.5 million and $21.0 million for the years ended December 31, 2022 and 2021, respectively. As of December 31, 2022, we employed 88 employees in research and development. We will continue investing in efforts to support the ongoing development of our instruments, chip consumables and software, as well as enhance the overall performance of our solutions.

Employees

As of December 31, 2022, we employed 290 employees. Of these employees, 88 were engaged in research and development activities, and we employed a commercial team of approximately 100 team members. 262 of these employees are located in the United States and 28 of these employees are located across Europe and Asia. None of our employees are represented by a labor union or are party to a collective bargaining agreement, and we have had no labor-related work stoppages.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants. The principal purposes of our equity incentive plans are to attract, retain and reward personnel through the granting of stock-based compensation awards, in order to increase stockholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

Scientific Advisory Board

We have assembled a highly qualified scientific advisory board composed of advisors who have deep expertise in the fields of nanotechnology, biomedical engineering and medicine. Our scientific advisory board is composed of Rong Fan, Ph.D. (our co-founder and chair of the scientific advisory board), James R. Heath, Ph.D., David Ho, M.D., Arnold Levine, Ph.D., Ross Levine, M.D., and Antoni Ribas, M.D., Ph.D.

Facilities

Our principal executive offices are located in Branford, Connecticut, where we lease approximately 24,932 square feet of office and manufacturing space. The lease for our principal executive offices is currently scheduled to terminate on

December 31, 2026. In addition to our principal executive offices, we lease additional offices and manufacturing space in Branford, Connecticut and additional offices in Kent, England and Shanghai, China.

We do not currently own any real property. We believe that our current facilities are adequate to meet our immediate needs and believe that we should be able to renew each of our leases without an adverse impact on our operations. In addition, we believe that if we require additional office space or manufacturing facilities, we will be able to obtain additional facilities on commercially reasonable terms.

Manufacturing and Suppliers

We manufacture our instruments and chip consumables in our manufacturing facilities in Branford, Connecticut and do not outsource any of our production manufacturing to third party contract manufacturers. Certain of our suppliers of certain critical components and materials are single source suppliers and we do not have supply agreements with certain suppliers of these critical components and materials beyond purchase orders. As part of our overall risk management strategy, we continue to evaluate and identify alternative suppliers for each of our components and materials.

Competition

We face significant competition in the life sciences technology market. We currently compete with many established technology companies in the flow cytometry, cellular analysis and single-cell -omics businesses. This includes companies that design, manufacture and market systems, consumables and software for, among other applications, genomics, transcriptomics, proteomics, metabolomics, single-cell analysis and immunology, and/or provide services related to the same. These companies include Becton, Dickinson and Company, Thermo Fisher Scientific Inc. and Bio-Rad Laboratories, Inc., each of which has products that compete to varying degrees with some but not all of our products. Growing understanding of the importance of single-cell information is leading to more companies offering services related to collecting such information. Our target customers may also elect to develop their workflows on legacy systems or using traditional methods, rather than implementing our platform, and they may also decide to stop using our platform. In addition, there are many large established players in the life sciences technology market that we do not currently compete with but that could develop systems, tools or other products that will compete with us in the future. These large established companies have substantially greater financial and other resources than us, including larger research and development staff or more established marketing and sales forces.

For further discussion of the risks we face relating to competition, see “Risk Factors—Risks Related to Our Business and Industry—*The life sciences technology market is highly competitive. If we fail to compete effectively, our business and results of operation will suffer*” in Item 1A. of this Form 10-K.

Government Regulation

Our products are currently marketed (and we currently intend to continue to market them) as research use only (“RUO”) and we sell them to biopharmaceutical companies and academic and research institutions that conduct research. The FDA defines RUO products as in-vitro diagnostic tests (“IVDs”) that are in the laboratory research phase of development and, if properly labeled, the FDA exempts RUO products from most FDA regulatory controls. RUO products must bear the statement: “For Research Use Only. Not for Use in Diagnostic Procedures.” RUO products cannot make any claims related to safety, effectiveness or diagnostic utility and they cannot be intended for human clinical diagnostic use. The FDA will evaluate the totality of the circumstances when determining if the product is intended for diagnostic purposes and, if the FDA were to determine, based on the totality of circumstances, that our products labeled and marketed for RUO are intended for diagnostic purposes, they would be considered medical devices and would require clearance or approval prior to commercialization. The FDA defines a medical device as an instrument, apparatus, implement, machine, contrivance, implant, in vitro reagent or other similar or related article, including any component part or accessory, which is (i) intended for use in the diagnosis of disease or other conditions, or in the cure, mitigation, treatment or prevention of disease, in man or other animals, or (ii) intended to affect the structure or any function of the body of man or other animals and which does not achieve any of its primary intended purposes through chemical action within or on the body of man or other animals and which is not dependent upon being metabolized for the achievement of any of its primary intended purposes. The development, testing, manufacturing, marketing, post-market surveillance, distribution, advertising and labeling of medical devices, which includes IVDs, are subject to regulation in the United States by the FDA under the Federal Food, Drug, and Cosmetic Act (“FDC Act”) and comparable state and international agencies. The FDA regulates, among other things, the research, design, development, preclinical and clinical testing, manufacturing, safety, effectiveness, packaging, labeling, storage, recordkeeping, pre-market clearance or approval, adverse event reporting, marketing, promotion, sales, distribution and import and export of medical devices. To be commercially distributed in the United

States, medical devices must receive from the FDA either clearance of a premarket notification, known as 510(k), or premarket approval pursuant to the FDC Act prior to marketing, unless subject to an exemption. Sales of devices for diagnostic purposes may also subject us to additional healthcare regulation. We continue to monitor the changing legal and regulatory landscape to ensure our compliance with any applicable rules, laws and regulations. For further discussion of the risks we face relating to regulation by the FDA and related regulatory agencies, see "Risk Factors—Risks Related to Government Regulation—*If our current or future products become subject to FDA or other related international regulation, the regulatory clearance or approval and the maintenance of continued and post-market regulatory compliance for such products will be expensive, time-consuming, and uncertain both in timing and in outcome*" in Item 1A. of this Form 10-K.

In the United States, various federal and state regulators, including governmental agencies like the Consumer Financial Protection Bureau and the Federal Trade Commission, have adopted, or are considering adopting, laws and regulations concerning personal information and data security. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, international or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. For example, the California Consumer Privacy Act ("CCPA"), which increases privacy rights for California residents and imposes obligations on companies that process their personal information, came into effect on January 1, 2020. Among other things, the CCPA requires covered companies to provide new disclosures to California consumers and provide such consumers new data protection and privacy rights, including the ability to opt-out of certain sales of personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches that result in the loss of personal information. This private right of action may increase the likelihood of, and risks associated with, data breach litigation. In November 2020, California voters passed the California Privacy Rights Act ("CPRA"), which became effective in most material respects beginning on January 1, 2023. The CPRA further expands the CCPA with additional data privacy compliance requirements and obligations and establishes a regulatory agency dedicated to enforcing the CCPA and CPRA. While we are not currently subject to the CCPA and CPRA, we may in the future be required to comply with such laws, which may increase our compliance costs and potential liability. Furthermore, the CCPA and CPRA could mark the beginning of a trend toward more stringent state privacy legislation in the United States, which could increase our potential liability and adversely affect our business.

In addition, the E.U. General Data Protection Regulation ("GDPR"), which became effective in May 2018, greatly increased the European Commission's jurisdictional reach of its data privacy and security laws and added a broad array of requirements for handling personal data. EU member states are tasked under the GDPR to enact, and have enacted, certain implementing legislation that adds to and/or further interprets the GDPR requirements and potentially extends our obligations and potential liability for failing to meet such obligations. The GDPR, together with national legislation, regulations and guidelines of the EU member states governing the processing of personal data, impose strict obligations and restrictions on the ability to collect, use, retain, protect, disclose, transfer and otherwise process personal data. In particular, the GDPR includes requirements to establish a legal basis for processing, higher standards for obtaining consent from individuals to process their personal data, more robust disclosures to individuals, a strengthened individual data rights regime, requirements to implement safeguards to protect the security and confidentiality of personal data, data breach notification obligations to appropriate data protection authorities or individuals, limitations on retention and secondary use of information and additional obligations when entities contract with third-party processors to process personal data. The GDPR authorizes fines for certain violations of up to 4% of global annual revenue or €20 million, whichever is greater. Following the withdrawal of the United Kingdom from the European Union, data privacy and security laws that are substantially similar to the GDPR are in effect in the United Kingdom, which carry similar risks and authorize similar fines for certain violations. The GDPR may increase our responsibility and liability in relation to personal data that we process where such processing is subject to the GDPR, and we may be required to put in place additional mechanisms to ensure compliance with the GDPR, including as implemented by individual countries. Compliance with the GDPR will be a rigorous and time-intensive process that may increase our cost of doing business or require us to change our business practices, and despite those efforts, there is a risk that we may be subject to fines and penalties, litigation, and reputational harm in connection with our European activities. We continue to monitor the changing legal and regulatory landscape to ensure our compliance with any applicable rules, laws and regulations.

For further discussion of the risks we face relating to data privacy and related regulations, see "Risk factors—General Risks—*We are currently subject to, and may in the future become subject to additional, U.S. federal and state laws and regulations imposing obligations on how we collect, store and process personal information. Our actual or perceived failure to comply with such obligations could harm our business. Ensuring compliance with such laws could also impair our efforts to maintain and expand our future customer base, and thereby decrease our revenue*" in Item 1A. of this Form 10-K.

Intellectual Property

Our ability to obtain and maintain intellectual property protection for our products and technology is fundamental to the long-term success of our business. We rely on a combination of intellectual property protection strategies, including copyrights, patents, trademarks, trade secrets, license agreements, confidentiality policies and procedures, nondisclosure agreements, invention assignment agreements and technical measures designed to protect the intellectual property and commercially valuable confidential information and data used in our business.

As of December 31, 2022, we owned 51 issued U.S. patents, 21 pending U.S. patent applications, two pending Patent Cooperation Treaty ("PCT") applications that have not entered national stage, 58 issued foreign patents and 32 pending foreign patent applications in various foreign jurisdictions, including the European Patent Office, Japan, China, and Hong Kong. Excluding any possible patent term adjustments or extensions and assuming payment of all appropriate maintenance, renewal, annuity or other governmental fees, our owned issued patents are expected to expire between 2028 and 2037 and our owned patent applications, if issued, are expected to expire between 2028 and 2043.

Various of our owned issued patents and patent applications relate to out automated proteomic systems, including our IsoLight and IsoSpark instruments, IsoSpeak software, and our IsoCode and CodePlex chip consumables. We also have patents and patent applications related to products or technologies that are under development or are on our development roadmap.

As of December 31, 2022, we exclusively licensed seven issued U.S. patents, four pending U.S. patent applications, seven issued foreign patents and ten pending foreign patent applications in various foreign jurisdictions. Excluding any possible patent term adjustments or extensions and assuming payment of all appropriate maintenance, renewal, annuity or other governmental fees, our exclusively in-licensed issued patents are expected to expire between 2028 and 2038 and our exclusively in-licensed patent applications, if issued, are expected to expire between 2028 and 2038. Our exclusively in-licensed issued patents and patent applications relate to our automated proteomic systems, including our IsoCode chip consumables.

We intend to pursue additional intellectual property protection to the extent we believe it would be beneficial and cost-effective. Our ability to stop third parties from making, using or commercializing any of our patented inventions will depend in part on our success in obtaining, defending and enforcing patent claims that cover our technology, inventions, and improvements. With respect to both our owned and in-licensed intellectual property, we cannot provide any assurance that any of our current or future patent applications will result in the issuance of patents in any particular jurisdiction, or that any of our current or future issued patents will effectively protect any of our products or technology from infringement or prevent others from commercializing infringing products or technology.

In addition to our reliance on patent protection for our inventions, products and technologies, we also seek to protect our brand through the procurement of trademark rights. We own registered trademarks and pending trademark applications for "IsoPlexis," "IsoLight," "IsoCode," "CodePlex," "IsoSpeak" and other product related brand names in the United States and certain foreign jurisdictions. Furthermore, we rely on trade secrets, know-how, unpatented technology and other proprietary information, to strengthen our competitive position. We currently maintain as trade secrets our software and certain other technologies, including assays. To mitigate the chance of trade secret misappropriation, we enter into nondisclosure and confidentiality agreements with parties who have access to our trade secrets, such as our employees, consultants, advisors and other third parties. We also enter into invention assignment agreements with our employees and consultants that obligate them to assign to us any inventions they have developed while working for us. We generally control access to our proprietary and confidential information through the use of internal and external controls. Although we take steps to protect our proprietary information and trade secrets, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology. As a result, we may not be able to meaningfully protect our trade secrets. Additionally, we use certain open source software in our products and services, including our IsoSpeak software, and anticipate using open source software in the future. The terms of various open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our services. For further discussion of the risks relating to intellectual property, see "Risk Factors—Risks Related to Our Intellectual Property" in Item 1A. of this Form 10-K.

License Agreements

Yale University

In April 2014, we entered into a license agreement (as amended and restated in July 2014 and November 2015, and as further amended in December 2016, January 2018 and July 2021, the "Yale Agreement") with Yale University ("Yale"). Pursuant to the Yale Agreement, we obtained an exclusive, royalty-bearing, sublicensable (subject to certain restrictions), worldwide license to certain patent rights and certain information related to (i) multiplexed detection to manufacture, use and commercialize products in all fields of use and (ii) high-throughput single-cell polyomics to manufacture, use and commercialize products in all fields of use except in the field of spatial biomolecular analysis. We also obtained a non-exclusive license to certain patent rights and certain information related to high-throughput single-cell polyomics to manufacture, use and commercialize products in the field of spatial biomolecular analysis. The license granted pursuant to the Yale Agreement is subject to certain rights retained by (i) the United States government under the Bayh-Dole Act and (ii) Yale (on behalf of itself and other non-profit academic and/or research institutions) to make, practice and use the licensed patent rights and licensed products for research, clinical, teaching and other non-commercial purposes. Such rights retained by the United States government and Yale are typical for a license from a U.S. university or research institution, and we believe such rights do not pose a material risk to our business. We may sublicense the licensed patent rights subject to certain conditions, including that any sublicense agreement must contain terms consistent with the terms of the Yale Agreement and we must pay Yale a low double-digit percentage of our sublicense income. Furthermore, in connection with the first two sublicense agreements we enter into, we are obligated to pay Yale certain milestone payments that may equal up to $15,000 in the aggregate.

In connection with entering into the Yale Agreement, we issued 7,772 shares of Series A redeemable convertible preferred stock to Yale valued at approximately $51,000 at the time of issuance. We then amended the Yale Agreement in January 2018 (the "January 2018 Amendment") to obtain an exclusive license to certain additional patent rights which include device, system and method of use claims directed to high-throughput single-cell polyomics to manufacture, use and commercialize products in all fields of use, which we subsequently amended in July 2021 to make the license exclusive in all fields except in the field of spatial biomolecular analysis only. Pursuant to the January 2018 Amendment, in consideration for the inclusion of these patent rights, we issued 3,374 shares of Series B-2 redeemable convertible preferred stock to Yale valued at approximately $100,000 at the time of issuance. In addition, we must pay Yale a customary annual license maintenance royalty ("LMR") in the low six-figure dollars, as well as low single-digit percentage earned royalties on worldwide cumulative net sales of licensed products, which royalties are subject to reduction upon the occurrence of certain events as specified in the Yale Agreement. The LMR is credited against earned royalties due by the Company in the same calendar year. As of December 31, 2022, we have incurred $0.1 million in royalty expense under the Yale Agreement.

Upon our IPO in October 2021, all of our outstanding shares of redeemable convertible preferred stock were automatically converted to shares of common stock. Accrued dividends payable in respect of the outstanding shares of redeemable convertible preferred stock were settled through the issuance of shares of common stock. Accordingly, Yale received 93,558 shares of common stock upon the closing of our IPO.

Under the terms of the Yale Agreement, we are required to use reasonable commercial efforts to develop and sell the licensed products, including incurring minimum annual expenses on research and development with respect to the licensed products, and we are restricted from developing, manufacturing or selling products that compete with the licensed products. Yale controls the filing, prosecution and maintenance of the licensed patent rights at our expense, subject to our ability to comment or approve certain related actions. We have the first right and obligation to institute a suit for infringement of the licensed patent rights and defend against any claim of invalidity or declaratory judgment action brought against the licensed patent rights. If we do not institute such suit or defend against such actions within a certain period of time, Yale has the right to convert the exclusive license granted under this license agreement to a non-exclusive license.

Unless terminated earlier, the Yale Agreement will continue, on a country-by-country basis, until the later of the expiration of the last to expire licensed patent right in a country or ten years after the date of first commercial sale of a licensed product in such country. The last to expire of the licensed issued patents under the Yale Agreement will expire in 2034 and the last to expire of the licensed patent applications under the Yale Agreement, if issued, will expire in 2038. Subject to an applicable cure period, Yale may terminate the Yale Agreement if we fail to comply with applicable payment obligations or upon a material breach of our obligations under the Yale Agreement, including our diligence obligations. Yale may also terminate the Yale Agreement if we fail to maintain adequate liability insurance or if we, directly or indirectly, challenge or oppose the validity, patentability or enforceability of any of the licensed patent rights, or if any of our sublicensees do so and we do not terminate the relevant sublicense agreement within a certain specified amount of

time. The Yale Agreement automatically terminates if we cease to carry on our business for a certain specified period of time or for certain specified insolvency-related events. We may terminate the Yale Agreement at any time by providing advance written notice. Subject to a cure period, we may terminate the Yale Agreement upon material, uncured breach by Yale. Either party may terminate the Yale Agreement, on a country-by-country basis, if neither party elects to undertake the defense of a suit alleging infringement for a certain period of time in a country.

California Institute of Technology

In March 2017, we entered into an exclusive license agreement (the "Caltech Agreement") with the California Institute of Technology ("Caltech"), pursuant to which we obtained an exclusive, royalty-bearing, sublicensable (subject to certain restrictions), worldwide license to certain patent rights related to methods and compositions for quantifying metabolites to manufacture, use and commercialize products in the field of detecting metabolites, including proteins and other analytes. The licenses granted pursuant to the Caltech Agreement are subject to certain rights retained by (i) the United States government under the Bayh-Dole Act and (ii) Caltech to make, import and use the licensed products for non-commercial purposes and to grant other non-profit institutions rights under the licensed patent rights and licensed technology for educational and research purposes. Such rights retained by the United States government and Caltech are typical for a license from a U.S. university or research institution, and we believe such rights do not pose a material risk to our business. We may sublicense the licensed patent rights and technology subject to certain conditions, including that any sublicense agreement must contain terms consistent with the terms of the Caltech Agreement, and we must pay Caltech a low double-digit percentage of our sublicense income.

In connection with entering into the Caltech Agreement, we issued 2,830 shares of Series B redeemable convertible preferred stock to Caltech valued at approximately $50,000 at the time of issuance. Upon our IPO in October 2021, all of our outstanding shares of redeemable convertible preferred stock were automatically converted to shares of common stock. Accrued dividends payable in respect of the outstanding shares of redeemable convertible preferred stock were settled through the issuance of shares of common stock. Accordingly, Caltech received 23,719 common shares upon the closing of our IPO. In addition, we must pay Caltech a royalty on the exclusively licensed patent rights at a low single-digit percentage of net revenues on a country-by-country and licensed product-by-licensed product basis (with an annual minimum royalty in the range of low to mid five-figure dollars), which obligation will continue until the expiration of all patent claims covering such licensed product in such country. For any country in which the exclusively licensed patent rights do not include any valid claims, we must pay Caltech a royalty on the non-exclusively licensed technology at a lower single-digit percentage of net revenues for a period of ten years from the first commercial sale. In the event that we fail to commercialize products that incorporate the licensed patents or technology, the annual minimum royalties due to Caltech will increase in accordance with the terms of the Caltech Agreement. We are also required to pay Caltech a mid-teen percentage of sublicensing revenue. As of December 31, 2022, we have incurred an immaterial amount in royalty expense pursuant to the Caltech Agreement. There are no potential future milestone payments under the Caltech Agreement.

Under the terms of the Caltech Agreement, we are required to use commercially reasonable efforts to commercialize the licensed products. In the event that we fail to commercialize the licensed products, the annual minimum royalty payment due to Caltech will increase in accordance with the Caltech Agreement. Caltech controls the prosecution and maintenance of the licensed patents and patent applications at our expense, subject to our ability to comment on certain related actions. Caltech also has the first right to institute a suit and defend against a declaratory judgment action pertaining to infringement or invalidity of the licensed patent rights.

Unless terminated earlier, the Caltech Agreement continues until the expiration of the last to expire licensed patent right, or as long as we are obligated to pay royalties under the Caltech Agreement. The last to expire of the licensed patent applications under the Caltech Agreement, if issued, will expire in 2036. Subject to an applicable cure period, Caltech may terminate the Caltech Agreement if we fail to comply with applicable payment obligations, fail to maintain adequate liability insurance or upon a material breach of our obligations under the Caltech Agreement, including our diligence obligations, our obligation to mark licensed products with applicable patent numbers, our exploitation of any licensed patent rights outside of the licensed field or our cessation of commercial activities in the licensed field. Caltech may also terminate the Caltech Agreement for certain specified insolvency-related events. We may terminate our license to any particular licensed patent or patent application at any time by providing advance written notice. Subject to a cure period, we may terminate the Caltech Agreement upon material, uncured breach by Caltech.

Corporate Information

IsoPlexis Corporation was incorporated in Delaware on March 1, 2013. Our principal executive office is located at 35 NE Industrial Rd., Branford, CT 06405 and our telephone number is (203) 208-4111. We completed our initial public

offering (our "IPO") in October 2021, and our common stock is listed on the Nasdaq Global Select Market ("Nasdaq") under the symbol "ISO."

Available Information

Additional information regarding IsoPlexis may be obtained at www.isoplexis.com and our investor relations website at https://investors.isoplexis.com. We have used, and intend to continue to use, our investor relations website as a means of disclosing material non-public information and for complying with our disclosure obligations under Regulation FD. Our website address is not intended to function as a hyperlink and the information available at these addresses is not incorporated by reference into this Form 10-K. We make our periodic and annual reports, together with amendments to these reports, available on our website, free of charge, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The SEC maintains a website as www.sec.gov that contains the reports and other information that we file electronically with the SEC.

In addition, our corporate governance guidelines, code of business conduct and ethics and the committee charters of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee are available through the investor relations section of our website at https://investors.isoplexis.com.

Item 1A. Risk Factors

Investing in our common stock involves a high degree of risk. You should consider and read carefully all of the risks and uncertainties described below, as well as the other information included in this Form 10-K, including our audited consolidated financial statements and related notes thereto appearing in this Form 10-K and in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations," before deciding whether to invest in our common stock. The occurrence of any of the events or developments described below, if they occur, or other events, developments or risks not presently known to us or that we currently believe to be immaterial, could materially and adversely affect our business, financial condition, results of operations and prospects. In such an event, the trading price of our common stock could decline, and you may lose all or part of your original investment. Some statements in this Form 10-K, including statements in the following risk factors, constitute forward-looking statements. Please refer to "Cautionary Note Regarding Forward-Looking Statements" included elsewhere in this Form 10-K.

Summary Risk Factors

Our business is subject to a number of risks, including those described at length below. The following is a summary of some of the principal risks we face:

- risks relating to our pending merger with Berkeley Light**s;**
- we have incurred significant net losses since inception, we expect to incur net losses in the future and we may not be able to generate sufficient revenue to achieve and maintain profitability and we have concluded that there is substantial doubt about our ability to continue as a going concern;
- it may be difficult for us to implement our strategies for executing our growth plan or to sustain or successfully manage our anticipated growth. Specifically, we may face difficulties related to scaling our operations, converting customers to our platform and incorporating new equipment and new technology systems and laboratory processes in response to our growth;
- we have a limited operating history, which may make it difficult to evaluate the prospects for our future viability and predict our future performance;
- the life sciences technology market is highly competitive. If we fail to compete effectively, our business and results of operations will suffer;
- the sizes of the markets and forecasts of market growth for our platform are based on a number of complex assumptions and estimates, and may be inaccurate;
- our business, financial condition, results of operations and prospects may be harmed if our customers discontinue or spend less on research, development and production and other scientific endeavors;
- if we do not successfully manage the development and launch of new products, our operating results could be adversely affected;

- we depend on our key personnel and other highly qualified personnel, and if we are unable to recruit, train and retain our personnel, we may not achieve our goals;
- we depend on our information technology systems, and any failure of these systems could harm our business;
- due to the significant resources required to enable access in new markets, we must make strategic and operational decisions to prioritize certain markets or technology offerings. We may expend our resources to access markets or develop technologies that do not yield meaningful revenue or we may fail to capitalize on markets or technologies that may be more profitable or with a greater potential for success;
- our international business could expose us to business, regulatory, political, operational, financial, and economic risks associated with doing business outside of the United States;
- our manufacturing operations are dependent upon third party suppliers, including single source suppliers, making us vulnerable to supply shortages and price fluctuations, which could harm our business;
- if our facilities are damaged or become inoperable, we will be unable to continue to research, develop and manufacture our products and, as a result, our business, financial condition, results of operations and prospects may be adversely affected until we are able to secure a new facility; and
- if we are unable to obtain and maintain sufficient intellectual property protection for our products and technologies, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our products may be impaired.

Risks Related to the Merger

The Merger may not be completed and the Merger Agreement may be terminated in accordance with its terms.

The Merger is subject to a number of conditions that must be satisfied, including the approval by Berkeley Lights stockholders of the issuance of Berkeley Lights Common Stock (as defined below) to IsoPlexis stockholders in connection with the Merger (the "Berkeley Lights share issuance proposal") and adoption of the Merger Agreement by IsoPlexis' stockholders (the "IsoPlexis merger proposal"), or waived (to the extent permitted), in each case prior to the completion of the Merger. These conditions to the completion of the Merger, some of which are beyond the control of Berkeley Lights and IsoPlexis, may not be satisfied or waived in a timely manner or at all, and, accordingly, the Merger may be delayed or not completed.

Additionally, either Berkeley Lights or IsoPlexis may terminate the Merger Agreement under certain circumstances, including, among other reasons, if the Merger is not completed by June 21, 2023 (which date will be automatically extended to September 21, 2023 under certain circumstances if certain regulatory approvals have not been obtained by June 21, 2023 and then again to December 21, 2023 under such circumstances if such regulatory approvals have still not been obtained by September 21, 2023). In addition, if the Merger Agreement is terminated under certain circumstances specified in the Merger Agreement, Berkeley Lights or IsoPlexis, as applicable, may be required to pay the other party a termination fee of $2.3 million, including certain circumstances in which the Berkeley Lights board of directors or the IsoPlexis board of directors, as applicable, effects a change of recommendation or under certain circumstances where Berkeley Lights or IsoPlexis, as applicable, enters into an agreement with respect to (or consummates) a superior proposal following the termination of the Merger Agreement.

The termination of the Merger Agreement could negatively impact IsoPlexis and the trading price of IsoPlexis common stock.

If the Merger is not completed for any reason, including because Berkeley Lights stockholders fail to approve the Berkeley Lights share issuance proposal or because IsoPlexis stockholders fail to approve the IsoPlexis merger proposal, the ongoing business of IsoPlexis may be adversely affected and, without realizing any of the expected benefits of having completed the Merger, IsoPlexis would be subject to a number of risks, including the following:

- IsoPlexis may experience negative reactions from the financial markets, including negative impacts on its stock price;

- IsoPlexis may experience negative reactions from its customers, suppliers, distributors and employees;

- IsoPlexis will be required to pay its costs relating to the Merger, such as financial advisory, legal, financing and accounting costs and associated fees and expenses, whether or not the Merger is completed;

- the Merger Agreement places certain restrictions on the conduct of IsoPlexis' business prior to completion of the Merger and such restrictions, the waiver of which is subject to the consent of Berkeley Lights (not to be unreasonably withheld, conditioned or delayed), may have prevented IsoPlexis from making certain acquisitions or from taking certain other specified actions during the pendency of the Merger that would have been beneficial; and

- matters relating to the Merger (including integration planning) will require substantial commitments of time and resources by IsoPlexis management, which could otherwise have been devoted to day-to-day operations or to other opportunities that may have been beneficial to IsoPlexis as an independent company.

Until the completion of the Merger or the termination of the Merger Agreement in accordance with its terms, IsoPlexis is prohibited from entering into certain transactions and taking certain actions that might otherwise be beneficial to IsoPlexis and its stockholders.

From and after the date of the Merger Agreement and prior to completion of the Merger, the Merger Agreement restricts IsoPlexis from taking specified actions without the consent of Berkeley Lights and requires that the business of IsoPlexis and its subsidiaries be conducted in the ordinary course in all material respects. These restrictions may prevent IsoPlexis from making appropriate changes to its business or organizational structure or from pursuing attractive business opportunities that may arise prior to the completion of the Merger, and could have the effect of delaying or preventing other strategic transactions. Adverse effects arising from these restrictions during the pendency of the Merger could be exacerbated by any delays in consummation of the Merger or termination of the Merger Agreement.

The Merger, and uncertainty regarding the Merger, may cause customers, suppliers, distributors or strategic partners to delay or defer decisions concerning IsoPlexis and adversely affect IsoPlexis' ability to effectively manage its business.

The Merger will happen only if the stated conditions are met, including the approval of the Berkeley Lights share issuance proposal, the approval of the IsoPlexis merger proposal and the receipt of any required regulatory approvals, among other conditions. Many of the conditions are outside the control of Berkeley Lights and IsoPlexis, and both parties also have certain rights to terminate the Merger Agreement. Accordingly, there may be uncertainty regarding the completion of the Merger. This uncertainty may cause customers, suppliers, distributors, vendors, strategic partners or others that deal with IsoPlexis to delay or defer entering into contracts with IsoPlexis or making other decisions concerning IsoPlexis or seek to change or cancel existing business relationships with IsoPlexis, which could negatively affect its business. Any delay or deferral of those decisions or changes in existing agreements could have an adverse impact on the business of IsoPlexis, regardless of whether the Merger is ultimately completed.

In addition, the Merger Agreement restricts IsoPlexis and its subsidiaries from making certain acquisitions and from taking other specified actions during the pendency of the Merger without the consent of Berkeley Lights. These restrictions may prevent IsoPlexis from pursuing attractive business opportunities or strategic transactions that may arise prior to the completion of the Merger.

Whether or not the Merger is completed, the announcement and pendency of the Merger could cause disruptions to IsoPlexis' business, which could have an adverse effect on its business and financial results.

Whether or not the Merger is completed, the announcement and pendency of the Merger could cause disruptions to IsoPlexis' business. Specifically:

- current and prospective employees of IsoPlexis will experience uncertainty about their future roles with the combined company, which might adversely affect IsoPlexis' ability to retain key managers and other employees; and

- the attention of management of IsoPlexis may be directed toward the completion of the Merger.

In addition, IsoPlexis has diverted significant management resources in an effort to complete the Merger and is subject to restrictions contained in the Merger Agreement on the conduct of its business. If the Merger is not completed, IsoPlexis

will have incurred significant costs, including the diversion of management resources, for which it will have received little or no benefit.

Risks Related to Our Business and Industry

We have incurred significant net losses since inception, we expect to incur net losses in the future, we may not be able to generate sufficient revenue to achieve and maintain profitability and we have concluded that there is substantial doubt about our ability to continue as a going concern.

We have incurred significant net losses since our inception. For the years ended December 31, 2022 and 2021, we incurred net losses of $106.0 million and $81.6 million, respectively. As of December 31, 2022 and 2021, we had an accumulated deficit of $240.0 million and $134.0 million, respectively. At the time of issuance of our audited consolidated financial statements for the year ended December 31, 2022, we concluded that there was substantial doubt about our ability to continue as a going concern for one year from the issuance of such audited consolidated financial statements. We expect that our operating expenses will continue to increase as we develop, enhance and commercialize new products and incur additional operational costs associated with being a public company. To date, we have financed our operations primarily from private placements of our redeemable convertible preferred stock, the sale of common stock in our IPO, the incurrence of indebtedness and, to a lesser extent, grant income and revenue derived from sales of our instruments and chip consumables. We have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, conducting development activities, including development and commercialization of our IsoLight and IsoSpark instruments, IsoCode and CodePlex chip consumables, and IsoSpeak software and research and development activities related to advancing and expanding our scientific and technological capabilities, and filing patent applications. We will need to generate significant additional revenue to achieve and sustain profitability, and even if we achieve profitability, we cannot be sure that we will remain profitable for any substantial period of time. We may never be able to generate sufficient revenue to achieve or sustain profitability and our recent and historical growth should not be considered indicative of our future performance. If we do not achieve or sustain profitability, it will be more difficult for us to finance our business and accomplish our strategic objectives, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects and cause the market price of our common stock to decline.

It may be difficult for us to implement our strategies for executing our growth plan or to sustain or successfully manage our anticipated growth.

Our success will depend on our ability to grow market penetration in existing markets and our ability to identify new applications for our platform to capture a greater share of the research spend accelerating advanced medicines and additional markets in the future. Our ability to grow our market penetration in existing markets will depend on our ability to attract new customers by increasing awareness of the capabilities of our platform. Future revenue growth will also depend on our ability to:

- properly identify and anticipate the needs of our customers in existing and new markets, including expanding our capabilities to include new applications for infectious diseases, inflammatory conditions and neurological diseases;
- develop and introduce new products;
- avoid infringing upon the intellectual property rights of third-parties and maintain necessary intellectual property licenses from third-parties; and
- provide adequate training to potential users of our products.

If we are unable to drive new customer conversion to our platform, expand adoption of the IsoLight or IsoSpark and our related products in new industries and markets, or increase the usage and value of our workflows to our customers, then our business, financial condition, results of operations and prospects could be adversely affected.

Additionally, as we continue to scale our business and the number of customers accessing our platform grows and our volume of installed platforms increases, we may find that certain of our products, certain customers or certain markets may require a dedicated sales force or sales personnel with different experience than those we currently employ. We may need to increase our capacity for customer service and support, for billing and general process improvements, and expand our internal quality assurance programs. Identifying, recruiting and training additional qualified personnel would require significant time, expense and attention. We may also need to purchase additional equipment, some of which can take several months or more to procure, setup and validate, and increase our personnel levels to meet increased demand. There is no assurance that any of these increases in scale, expansion of personnel, equipment, software and computing capacities

or process enhancements will be successfully implemented, or that we will have adequate space, including in our manufacturing facilities, to accommodate such required expansion.

As we commercialize additional products, we will need to incorporate new equipment, implement new technology systems and laboratory processes, and hire new personnel, possibly with supplemental or different qualifications as compared to our current personnel. Failure to manage this growth or transition could result in turnaround time delays, higher product costs, declining product quality, deteriorating customer service and slower responses to competitive challenges. A failure in any one of these areas could make it difficult for us to meet market expectations for our products and could damage our reputation and the prospects for our business.

We have a limited operating history, which may make it difficult to evaluate the prospects for our future viability and predict our future performance.

We completed our first sale of our instruments in June 2018. Revenue decreased by 2.9% to $16.8 million for the year ended December 31, 2022 as compared to $17.3 million for the year ended December 31, 2021. In addition, we operate in highly competitive markets characterized by rapid technological advances and we expect that our business will have to evolve over time to remain competitive. As included in Note 5, the reserve for excess and obsolete inventory were $9.5 million and $0.4 million, for the year ended December 31, 2022 and December 31, 2021, respectively. We have experienced and expect to continue to experience pricing pressure for our products and services as a result of competitive factors and an evolving product mix as we expand the scope of our offering. Our limited operating history, evolving business and rapid growth may make it difficult to evaluate our future prospects and the risks and challenges we may encounter and may increase the risk that we will not continue to grow at or near historical rates.

If we fail to address the risks and difficulties that we face, including those described elsewhere in this Item 1A. of this Form 10K, our business, financial condition, results of operations and prospects could be adversely affected. We have encountered in the past, and expect to encounter in the future, risks and uncertainties frequently experienced by growing companies with limited operating histories in new and rapidly changing industries. If our assumptions regarding these risks and uncertainties, which we use to plan and operate our business, are incorrect or change, or if we do not address these risks and difficulties successfully, our results of operations could differ materially from our expectations and our business, financial condition, results of operations and prospects could be adversely affected.

The life sciences technology market is highly competitive. If we fail to compete effectively, our business and results of operations will suffer.

We face significant competition in the life sciences technology market. We currently compete with many established technology companies in the flow cytometry, cellular analysis and single-cell-omics businesses. This includes companies that design, manufacture and market systems, consumables and software for, among other applications, genomics, transcriptomics, proteomics, metabolomics, single-cell analysis and immunology, and/or provide services related to the same. These companies include Becton, Dickinson and Company, Thermo Fisher Scientific Inc. and Bio-Rad Laboratories, Inc., each of which has products that compete to varying degrees with some but not all of our products.

Some of our current competitors are large publicly-traded companies, or are divisions of large publicly-traded companies, and may enjoy a number of competitive advantages over us, including:

- greater name and brand recognition;
- greater financial and human resources;
- broader product lines;
- larger sales forces and more established distributor networks;
- substantial intellectual property portfolios;
- larger and more established customer bases and relationships; and
- better established, larger scale and lower cost manufacturing capabilities.

As a result, our competitors and potential competitors may be able to respond more quickly to changes in customer requirements, devote greater resources to the development, promotion and sale of their platforms or instruments than we can or sell their platforms or instruments, or offer services competitive with our platform and services, at prices designed to win significant levels of market share. We may not be able to compete effectively against these organizations.

In addition, competitors may be acquired by, receive investments from or enter into other commercial relationships with larger, well-established and well-financed companies. Certain of our competitors may be able to secure key inputs from vendors on more favorable terms, devote greater resources to marketing and promotional campaigns, adopt more aggressive pricing policies and devote substantially more resources to product development than we can. If we are unable to compete successfully against current and future competitors, we may be unable to increase market adoption and sales of our platform, which could prevent us from increasing our revenue or achieving profitability.

The sizes of the markets and forecasts of market growth for our platform are based on a number of complex assumptions and estimates, and may be inaccurate.

The market for our platform is evolving, making it difficult to predict with any accuracy the size of the markets for our current and future products. We use estimates and forecasts to calculate annual total addressable markets and market growth for our platform and for our technologies under development. These estimates and forecasts are based on a number of complex assumptions, internal and third party estimates and other business data, including assumptions and estimates relating to our ability to generate revenue from the development of new applications and products. While we believe our assumptions and the data underlying our estimates are reasonable, there are inherent challenges in measuring or forecasting such information. As a result, these assumptions and estimates may not be correct and the conditions supporting our assumptions or estimates may change at any time, thereby reducing the predictive accuracy of these underlying factors. As a result, our estimates of the annual total addressable market and our forecasts of market growth and future revenue for our current or future products may prove to be incorrect. If the annual total addressable market or the potential market growth for our platform is smaller than we have estimated, it may impair our sales growth and have an adverse impact on our business, financial condition, results of operations and prospects.

New product development involves a lengthy and complex process and we may be unable to develop or commercialize new products on a timely basis, or at all.

Products from our research and development programs will take time and considerable resources to develop, and may include improvements or changes to our instruments, chip consumables and software, and we may not be able to complete development and commercialize them on a timely basis, or at all. There can be no assurance that any of our applications and other products in development will produce commercial products and solutions and before we can commercialize any new products or workflows, we will need to expend significant funds in order to:

- conduct substantial research and development, which may include validation and proof of concept studies;
- further develop and scale our laboratory, engineering and manufacturing processes to accommodate different products and workflows; and
- further develop and scale our infrastructure to be able to analyze increasingly large amounts of data.

Our product and workflow development processes involve a high degree of risk, and these efforts may be delayed or fail for many reasons, including:

- failure of the product or workflow to perform as expected; and
- failure to reliably demonstrate the process advantages of our products or workflows.

In addition, if we are unable to generate additional data and insights from our research and development programs, then we may not be able to advance these programs as quickly, or at all, or without significant additional investment, all of which could have a material adverse effect on our product and workflow development efforts.

Even if we are successful in developing new products or workflows, it will require us to make significant additional investments in marketing and selling resources in order to commercialize any such products or workflows. As a result, we may be unsuccessful in commercializing new products or workflows that we develop, which could adversely affect our business, financial condition, results of operations and prospects.

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

Our quarterly and annual operating results have fluctuated significantly in the past and may fluctuate significantly in the future, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the level of demand for our platform, which may vary significantly;
- the length of time of the sales cycle for purchases of our products;
- the timing and cost of, and level of investment in, research, development and commercialization activities relating to our products, which may change from time to time;
- the mix of our products sold and the geographies in which they are sold period to period;
- the relative reliability and robustness of our IsoSpark and IsoLight instruments;
- the introduction of new products or product enhancements by us or others in our industry;
- expenditures that we may incur to acquire, develop or commercialize additional products and technologies;
- expenditures involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims;
- changes in governmental regulations;
- future accounting pronouncements or changes in our accounting policies; and
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

The effect of one of the factors discussed above, or the cumulative effects of a combination of factors discussed above, could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

Our business, financial condition, results of operations and prospects may be harmed if our customers discontinue or spend less on research, development and production and other scientific endeavors.

Our customers include biopharmaceutical companies and academic and research institutions. Many factors, including public policy spending priorities, available resources and product and economic cycles, have a significant effect on the capital spending policies of these entities. Fluctuations in the research and development budgets of our customers could have a significant effect on the demand for our products. Our customers determine their research and development budgets based on several factors, including the need to develop new products, continued availability of governmental and other funding, competition and the general availability of resources. If our customers' research and development budgets are reduced, the impact could adversely affect our business, financial condition, results of operations and prospects.

If we are unable to maintain and expand sales and marketing capabilities, we may not be successful in increasing sales of our existing products or commercializing new products.

We may not be able to market, sell or distribute our current products, or future products that we may develop, effectively enough to support our planned growth.

Competition for employees capable of selling expensive instruments and related products within the pharmaceutical and biotechnology industries is intense. As of December 31, 2022, we employed a commercial team of approximately 100 team members, but we may not be able to retain existing personnel or attract new personnel or be able to maintain, and continue to build, an efficient and effective sales organization, which could negatively impact sales and market acceptance of our products and limit our revenue growth and potential profitability. In addition, the time and cost of establishing and maintaining a specialized sales, marketing and service force for a particular product or service may be difficult to justify in light of the revenue generated or projected.

Our expected future growth will impose significant added responsibilities on members of management, including the need to identify, recruit, maintain and integrate additional employees. Our future financial performance and our ability to increase sales of our existing products, commercialize new products and to compete effectively will depend, in part, on our ability to manage this potential future growth effectively, without compromising quality.

In addition, we utilize thirteen distributor relationships to market and sell our products in Europe, North America, the Middle East and Asia-Pacific and we intend to leverage our distributor partnerships to expand into additional markets in the future. We exert limited control over these distributors under our agreements with them, and if their sales and marketing efforts for our products in any region are not successful, our business would be materially and adversely affected. Locating, qualifying and engaging distribution partners with local industry experience and knowledge will be necessary in at least the short to mid-term to effectively market and sell our products in certain countries outside the United States. We may not be successful in finding, attracting and retaining distribution partners, or we may not be able to enter into such arrangements on favorable terms. Even if we are successful in identifying distributors, such distributors may engage in sales practices that violate local laws or our internal policies, which could create civil or criminal liability for us. Furthermore, sales practices utilized by any such distribution parties that are locally acceptable may not comply with sales practices standards required under U.S. and other laws that apply to us, which could create additional compliance risk. If our sales and marketing efforts by us or our distributors are not successful outside the United States, we may not achieve our sales goals for our products outside the United States, which would materially and adversely impact our business, financial condition, results of operations and prospects.

If we do not successfully manage the development and launch of new products, our operating results could be adversely affected.

Further development and commercialization of our current and future products are key elements of our growth strategy. For example, we completed our first sale of our IsoSpark instrument in the first quarter of 2021 and we intend to launch additional new products in the next six to twelve months. The expenses or losses associated with unsuccessful product development or launch activities, our inability to improve the functionality or reliability and robustness of our current products, or lack of market acceptance of our new products could adversely affect our business, financial condition, results of operations and prospects. This future growth could create strain on our organizational, administrative and operational infrastructure, including laboratory operations, quality control, customer service and sales organization management.

If we fail to offer high-quality customer service, our business and reputation could suffer.

Ensuring high-quality customer service is important for the growth of our business and any failure to maintain such standards of customer service, or a related market perception, could affect our ability to sell products to existing and prospective customers. Additionally, we believe our customer service team has a positive influence on recurring chip consumables revenue. Providing an exceptional customer experience requires significant time and resources from our customer service team. Potential impacts of the COVID-19 pandemic on the health and safety of our customer service organization could reduce or eliminate the organization's ability to provide an exceptional customer experience. Additionally, the organization's ability to provide on-site, in-person customer service (including on-site installation of our instruments) has and may continue to be restricted or eliminated due to the impacts of the COVID-19 pandemic. Therefore, failure to scale our customer service organization adequately or impacts on our organization's ability to provide an exceptional customer experience may adversely impact our business, financial condition, results of operations and prospects.

Customers utilize our service teams and online content for help with a variety of topics, including how to use our products efficiently, how to integrate our products into existing workflows, how to determine which of our other products may be needed for a given experiment and how to resolve technical, analysis and operational issues if and when they arise. As we introduce new products and enhance existing products, we expect utilization of our customer service teams to increase. In particular, the introduction of new or improved products may require additional customer service efforts to ensure customers use such products correctly and efficiently. While we have developed significant resources for remote training, including an extensive library of online videos, we may need to rely more on these resources for future customer training or we may experience increased expenses to enhance our online and remote solutions, particularly due to the impacts of the COVID-19 pandemic. If our customers do not adopt these resources, we may be required to increase the staffing of our customer service team, which would increase our costs. Also, as our business scales, we may need to engage third-party customer service providers, which could increase our costs and negatively impact the quality of the customer experience if such third parties are unable to provide service levels equivalent to ours.

The number of our customers has grown significantly and such growth, as well as any future growth, will put additional pressure on our customer service organization. We may be unable to hire qualified personnel quickly enough or to the extent necessary to accommodate increases in demand.

In addition, as we continue to grow our operations and reach a global customer base, we need to be able to provide efficient customer service that meets our customers' needs globally at scale. In geographies where we sell through distributors, we rely on those distributors to provide customer service. If these third-party distributors do not provide a high-quality customer experience, our business operations and reputation may suffer.

Repair or replacement costs due to warranties we provide on our instruments could have a material adverse effect on our business, financial condition and results of operations.

We provide a one-year assurance-type warranty on our instruments. Existing and future warranties place us at the risk of incurring future repair and/or replacement costs. At the time revenue is recognized, we establish an accrual for estimated warranty expenses based on historical data and trends of product reliability and costs of repairing and replacing defective products. We exercise judgment in estimating the expected product warranty costs, using data such as the actual and projected product failure rates, estimated repair costs, freight, material, labor and overhead costs. While we believe that historical experience provides a reliable basis for estimating such warranty cost, unforeseen quality issues or component failure rates as well as significantly higher sales and the introduction of new products could result in future costs in excess of such estimates, or alternatively, improved quality and reliability in our products could result in actual expenses that are below those currently estimated. As of December 31, 2022, we had accrued expenses of $0.3 million relating to product warranty accruals. Substantial amounts of warranty claims could have a material adverse effect on our business, financial condition and results of operations.

Our Credit Agreement contains covenants, which restrict our operating activities, and we may be required to repay the outstanding indebtedness in an event of default, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

On December 30, 2020, we entered into a credit agreement and guaranty (as amended, the "Credit Agreement"), which provides for senior secured financing of up to $50.0 million, consisting of (i) a $25.0 million Tranche A term loan, (ii) a $10.0 million Tranche B term loan, (iii) a $7.5 million Tranche C term loan and (iv) a $7.5 million Tranche D term loan. The full amount of the Tranche A term loan was drawn on December 30, 2020, the full amount of the Tranche B term loan was drawn on May 27, 2021, the full amount of the Tranche C term loan was drawn on March 30, 2022, and the full amount of the Tranche D term loan was drawn on June 29, 2022. Unless accelerated prior to such date, all amounts outstanding under the Credit Agreement are due to be repaid on December 30, 2025. Until we have repaid such indebtedness, the Credit Agreement subjects us to various customary covenants, including requirements as to minimum liquidity and minimum total revenue and restrictions on our ability to incur indebtedness or guarantees, to subject our assets to any liens, to make investments and loans, to make capital expenditures, to engage in mergers, acquisitions and asset sales, to engage in new lines of business, to declare dividends, make payments or redeem or repurchase equity interests, to enter into agreements limiting restricted subsidiary distributions, to prepay, redeem or purchase certain indebtedness and to engage in certain transactions with affiliates. In particular, the Credit Agreement includes a quarterly minimum total revenue covenant for the applicable trailing twelve month period, which revenue threshold began at approximately $16.8 million for the twelve months ended March 31, 2022 and increases over time. In November 2022 and February 2023, we obtained from the lenders waivers of the quarterly minimum total revenue covenant for the twelve months ended September 30, 2022 and December 31, 2022 and a waiver of any event of default resulting from non-compliance with the quarterly minimum total revenue covenant for such test period. In March 2023, we also obtained from the lenders a waiver pertaining to the existence of a "going concern" qualification in the accompanying opinion of our auditors in this Annual Report on Form 10-K and any resulting event of default. There can be no assurance as to our future compliance with the covenants under the Credit Agreement or that our lenders will waive any failure to satisfy such covenants under the Credit Agreement in the future. Our business may be adversely affected by these restrictions on our ability to operate our business.

We may be required to repay the amounts outstanding under the Credit Agreement if an event of default occurs under the Credit Agreement. An event of default will occur if, among other things, we fail to make required payments under the Credit Agreement; we breach any of our covenants under the Credit Agreement, subject to specified cure periods with respect to certain breaches; the Administrative Agent determines that a material adverse change (as defined in the Credit Agreement) has occurred; we or our assets become subject to certain legal proceedings, such as bankruptcy proceedings; we are unable to pay our debts as they become due; or we default on certain material indebtedness which would permit the acceleration of maturity of such indebtedness. We may not have enough available cash or be able to raise additional funds through equity or debt financings to repay such indebtedness at the time any such event of default occurs. In the case where we may not have enough available cash or be able to raise additional funds to repay such indebtedness, we may be required to delay, limit, reduce or terminate our product development or operations or grant to others rights to develop and market products that we would otherwise prefer to develop and market ourselves. The Administrative Agent could also exercise its

rights as secured lender to take possession of and to dispose of the collateral securing the term loans, which collateral includes substantially all of our property. Our business, financial condition, results of operations and prospects could be materially adversely affected as a result of any of these events.

Despite our level of indebtedness, we may incur more debt and undertake additional obligations. Incurring such debt or undertaking such additional obligations could further exacerbate the risks our indebtedness poses to our financial condition.

As of December 31, 2022, we had approximately $46.4 million in aggregate principal amount of outstanding indebtedness, subject to certain conditions, under the Credit Agreement. Despite our level of indebtedness, we may be able to incur significant additional indebtedness in the future, including in the event we refinance or replace our existing Credit Agreement. Although the Credit Agreement contains restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of qualifications and exceptions. These restrictions also will not prevent us from incurring obligations that do not constitute indebtedness and, if we refinance existing indebtedness, such refinancing indebtedness may contain fewer restrictions on our activities. To the extent new indebtedness is added to our currently anticipated indebtedness levels, the related risks that we face could intensify. While the Credit Agreement also contains restrictions on making certain investments and loans, these restrictions are subject to a number of qualifications and exceptions, and the investments and loans incurred in compliance with these restrictions could be substantial.

We depend on our key personnel and other highly qualified personnel, and if we are unable to recruit, train and retain our personnel, we may not achieve our goals.

Our future success depends upon our ability to recruit, train, retain and motivate key personnel. Our senior management team, including Sean Mackay, one of our co-founders and our Chief Executive Officer; John Strahley, our Chief Financial Officer; and Jing Zhou, our Chief Scientific Officer, is critical to our vision, strategic direction, product development and commercialization efforts. The departure of one or more of our executive officers, senior management team members, or other key employees could be disruptive to our business until we are able to hire qualified successors. We do not maintain “key man” life insurance on our senior management team.

Our continued growth depends, in part, on attracting, retaining and motivating qualified personnel, including highly-trained sales personnel with the necessary scientific background and ability to understand our platform at a technical level to effectively identify and sell to potential new customers. New hires require significant training and, in most cases, take significant time before they achieve full productivity. Our failure to successfully integrate these key personnel into our business could adversely affect our business. In addition, competition for qualified personnel in our industry is intense. We compete for qualified scientific and information technology personnel with other life science and information technology companies as well as academic institutions and research institutions. Some of our scientific personnel are qualified foreign nationals whose ability to live and work in the United States is contingent upon the continued availability of appropriate visas. As a result, changes to United States immigration policies could restrain the flow of technical and professional talent into the United States and may inhibit our ability to hire qualified personnel. The current United States rules, regulations, policies and mandates restricting immigration and reforming the work visa process may adversely affect our ability to retain and maintain qualified personnel.

We do not maintain fixed term employment contracts with any of our employees. As a result, our employees could leave our company with little or no prior notice and may be free to work for a competitor. Due to the complex and technical nature of our products and technology and the dynamic market in which we compete, any failure to attract, train, retain and motivate qualified personnel could materially harm our business, results of operations, financial condition and prospects.

We depend on our information technology systems, and any failure of these systems could harm our business.

We depend on information technology and telecommunications systems for significant elements of our operations, including our laboratory information management system, our quality management system, our sales management system, and product lifecycle management system. We have installed, and expect to expand, a number of enterprise software systems that affect a broad range of business processes and functional areas, including for example, systems handling human resources, financial controls and reporting, contract management, regulatory compliance and other infrastructure operations. These information technology and telecommunications systems support a variety of functions, including manufacturing operations, laboratory operations, data analysis, quality control, customer service and support, billing, research and development activities, scientific and general administrative activities.

Information technology and telecommunications systems are vulnerable to damage from a variety of sources, including telecommunications or network failures, malicious software, bugs or viruses, human acts and natural disasters. Moreover,

despite network security and back-up measures, some of our servers are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. Any disruption or loss of information technology or telecommunications systems on which critical aspects of our operations depend could have an adverse effect on our business and our reputation, and we may be unable to regain or repair our reputation in the future.

Due to the significant resources required to enable access in new markets, we must make strategic and operational decisions to prioritize certain markets or technology offerings. We may expend our resources to access markets or develop technologies that do not yield meaningful revenue or we may fail to capitalize on markets or technologies that may be more profitable or with a greater potential for success.

We believe our platform has potential applications across a wide range of markets and we have targeted certain markets in which we believe our technology has significant advantages, or for which we believe we have a higher probability of success or revenue opportunity or for which the path to realizing or achieving revenue is shorter. For example, our initial focus has been on developing applications for cancer immunology and cell and gene therapy but we are expanding our capabilities to include applications for infectious diseases, inflammatory conditions and neurological disorders. We seek to maintain a process of prioritization and resource allocation to maintain a balance between advancing near-term opportunities and exploring additional markets for our technology. However, due to the significant resources required for the development of new applications for new markets, we must make decisions on which markets to pursue and the amount of resources to allocate to each. Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular applications may not lead to the development of any viable product and may divert resources away from better opportunities.

Our international business could expose us to business, regulatory, political, operational, financial, and economic risks associated with doing business outside of the United States.

We currently sell our products in several international markets, including in Australia, Belgium, Canada, China, Czech Republic, France, Germany, Italy, Israel, Japan, Portugal, Singapore, South Korea, Spain, Switzerland, and the United Kingdom, and we intend to expand into additional international markets. We currently maintain relationships with distributors outside of the United States and may in the future enter into new distributor relationships. Doing business internationally involves a number of risks, including:

- multiple, conflicting and changing laws and regulations such as privacy regulations, tax laws, export and import restrictions, tariffs, economic sanctions and embargoes, employment laws, regulatory requirements and other governmental approvals, permits and licenses;
- failure by us or our distributors to obtain approvals to conduct our business in various countries;
- differing intellectual property rights;
- complexities and difficulties in obtaining intellectual property protection, enforcing our intellectual property and defending against third party intellectual property claims;
- difficulties in staffing and managing foreign operations;
- logistics and regulations associated with shipping systems and parts and components for instruments and chip consumables, as well as transportation delays;
- travel restrictions that limit the ability of marketing, presales, sales, services and support teams to service customers;
- financial risks, such as longer payment cycles, difficulty collecting accounts receivable, the impact of local and regional financial crises on demand and payment for our products and exposure to foreign currency exchange rate fluctuations;
- international trade disputes that could result in tariffs and other protective measures;
- natural disasters, political and economic instability, including wars such as the conflict between Russia and Ukraine, terrorism and political unrest, outbreak of disease, boycotts, curtailment of trade and other business restrictions; and
- regulatory and compliance risks that relate to maintaining accurate information and control over sales and distributors' activities that may fall within the purview of the U.S. Foreign Corrupt Practices Act (the "FCPA"), its books and records provisions, or its anti-bribery provisions, or similar laws in other countries.

Any of these factors could significantly harm our current operations and potential future international expansion and consequently, our business, financial condition, results of operations and prospects. In addition, certain international markets are subject to significant political and economic uncertainty, including for example the effect of the withdrawal of the United Kingdom from the European Union. Significant political and economic developments in international markets for which we operate or intend to operate, or the perception that any of them could occur, creates further challenges for operating in these markets in addition to creating instability in global economic conditions.

Our products could have defects or errors, which may give rise to claims against us, adversely affect market adoption of our products, and adversely affect our business, financial condition, and results of operations.

Our instruments, chip consumables and services utilize novel and complex technology and may develop or contain undetected defects or errors. We cannot assure you that material performance problems, defects, or errors will not arise, including as we commercialize additional products. We provide warranties that our instruments will meet performance expectations and will be free from defects. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating margins.

In manufacturing our products, we depend upon third parties for the supply of various components, many of which require a significant degree of technical expertise to produce. If our suppliers fail to produce our components to specification or provide defective products to us and our quality control tests and procedures fail to detect such errors or defects, or if we or our suppliers use defective materials or workmanship in the manufacturing process, the reliability and performance of our products will be compromised.

If our products contain defects, we may experience:

- loss of customer orders and delay in order fulfillment;
- damage to our brand reputation;
- increased warranty and customer service and support costs due to product repair or replacement;
- product recalls, withdrawals or replacements;
- inability to attract new customers;
- diversion of resources from our manufacturing and research and development departments to our service department; and
- legal claims against us, including product liability claims, which could be costly and time consuming to defend and result in substantial damages.

If we were to be sued for product liability, we could face substantial liabilities that exceed our resources.

The marketing, sale and use of our products could lead to the filing of product liability claims were someone to allege that our products identified inaccurate or incomplete information regarding the cells analyzed or otherwise failed to perform as designed. We may also be subject to liability for errors in, a misunderstanding of or inappropriate reliance upon, the information we provide in the ordinary course of our business activities. If we cannot successfully defend ourselves against product liability claims, we could incur substantial liabilities and reputational harm. In addition, regardless of the merit or eventual outcome, product liability claims may result in:

- costs of litigation;
- distraction of management’s attention from our primary business;
- the inability to commercialize existing or new products;
- decreased demand for our products;
- damage to our business reputation;
- product recalls or withdrawals from the market;
- termination of existing agreements by customers and suppliers; and
- loss of net sales.

We maintain product liability insurance that we believe is adequate, but this insurance is subject to deductibles and coverage limitations. Our current product liability insurance may not continue to be available to us on acceptable terms, if at all, and, if available, coverage may not fully protect us from the financial impact of defending against product liability claims. Any product liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage in the future. A product liability lawsuit, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could impact our business, financial condition, results of operations and prospects.

Our insurance policies are expensive and protect us only from some business risks, which leaves us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter and our policies have limits and significant deductibles. Some of the policies we currently maintain include general liability, property, umbrella and directors' and officers' insurance.

Any additional product liability insurance coverage we acquire in the future may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and in the future we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses. A successful product liability claim or series of claims in which judgments exceed our insurance coverage could adversely affect our business, financial condition, results of operations and prospects, including preventing or limiting the commercialization of any products we develop.

We also expect the laws, rules and regulations we are subject to as a public company to make it more expensive for us to maintain directors' and officers' liability insurance, and we may be required in the future to accept reduced coverage or incur substantially higher costs to maintain coverage. As a result, it may be more difficult for us to attract and retain qualified people to serve on our board of directors, our board committees or as executive officers. We do not know, however, if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our business, financial condition, results of operations and prospects.

We may need to raise additional capital to fund our existing operations, improve our platform or develop and commercialize new instruments, consumables and software, or expand our operations.

If our available cash resources and anticipated cash flows from operations are insufficient to satisfy our liquidity requirements, including because of lower demand for our products or the realization of other risks discussed in this Item 1A. of this Form 10-K, we may be required to raise additional capital through issuances of equity or convertible debt securities, entrance into a credit facility or another form of third party funding or seek other debt financing. There is no assurance we will be able to obtain future financing on commercially reasonable terms, or at all.

In any event, we may consider raising additional capital in the future to expand our business, to pursue strategic investments, to take advantage of financing opportunities or for other reasons, including to:

- increase our sales and marketing efforts to drive market adoption of our platform and address competitive developments;
- fund development and marketing efforts of our existing products or any future products;
- expand our technologies into additional markets;
- acquire, license or invest in technologies and other intellectual property rights;
- acquire or invest in complementary businesses or assets; and
- finance capital expenditures and general and administrative expenses.

Our present and future funding requirements will depend on many factors, including:

- our ability to achieve projected revenue growth;
- the cost of expanding our operations, including production capacity, lab space, and our offerings, including our sales and marketing efforts;

- our rate of progress in launching and commercializing new products, and the cost of the sales and marketing activities associated with increasing sales of our existing instruments and products;
- our rate of progress in, and cost of research and development activities associated with, products in research and development;
- the effect of competing technological and market developments;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims;
- costs related to domestic and international expansion; and
- the potential cost of and delays in product development as a result of any regulatory oversight that may be applicable to our products.

The various ways we could raise additional capital carry potential risks. If we raise funds by issuing equity securities, dilution to our stockholders could result. Any preferred equity securities issued also could provide for rights, preferences or privileges senior to those of holders of our common stock. If we raise funds by borrowing debt, such debt would have rights, preferences and privileges senior to those of holders of our common stock. The terms of such debt could impose significant restrictions on our operations. If we raise funds through collaborations or licensing arrangements, we might be required to relinquish significant rights to our platform technologies or products or grant licenses on terms that are not favorable to us or commit to future payment streams. Market volatility resulting from the COVID-19 pandemic or other factors may further adversely impact our ability to raise capital as and when needed.

If we are unable to obtain adequate financing or financing on terms satisfactory to us, if we require it, our ability to continue to pursue our business objectives and to respond to business opportunities, challenges, or unforeseen circumstances could be significantly limited, and could have a material adverse effect on our business, financial condition, results of operations and prospects.

We are subject to differing tax rates in several jurisdictions in which we operate, which may adversely affect our business, financial condition, results of operations and prospects.

We are subject to taxes in the United States and certain foreign jurisdictions. Due to economic and political conditions, tax rates in various jurisdictions, including the United States, may be subject to change. Our future effective tax rates could be affected by changes in the mix of earnings in countries with differing statutory tax rates, changes in the valuation of deferred tax assets and liabilities and changes in tax laws or their interpretation. In addition, we may be subject to income tax audits by various tax jurisdictions. Although we believe our income tax liabilities are reasonably estimated and accounted for in accordance with applicable laws and principles, an adverse resolution by one or more taxing authorities could have a material impact on the results of our operations.

International tariffs applied to goods traded between the United States and China may adversely affect our business, financial condition, results of operations and prospects.

International tariffs, including tariffs applied to goods traded between the United States and China, may adversely affect our business, results of operations and financial condition. Since the beginning of 2018, there has been increasing rhetoric, in some cases coupled with legislative or executive action, from several U.S. and foreign leaders regarding the possibility of instituting tariffs against foreign imports of certain materials. More specifically, in March and April of 2018, the United States and China have applied tariffs to certain of each other’s exports. The institution of trade tariffs both globally and between the United States and China specifically carries the risk of adversely affecting overall economic condition, which could have a negative impact on us as imposition of tariffs could cause an increase in the cost of our products and the components for our products, which may adversely affect our business, financial condition, results of operations and prospects.

Unfavorable U.S. or global economic conditions as a result of the COVID-19 pandemic, or otherwise, could adversely affect our ability to raise capital and our business, financial condition, results of operations and prospects.

While the potential economic impact brought by, and the duration of, the COVID-19 pandemic is difficult to assess or predict, the COVID-19 pandemic has resulted in, and may continue to result in, extreme volatility and disruptions in the capital and credit markets, reducing our ability to raise additional capital through equity, equity-linked or debt financings, which could negatively impact our short-term and long-term liquidity and our ability to operate in accordance with our operating plan, or at all. Additionally, our results of operations could be adversely affected by general conditions in the global economy and financial markets. If the operations of our suppliers are impacted by the COVID-19 pandemic, we may

not be able to source the necessary components and materials to build our products in sufficient quantities to meet demand. If the operations of our customers are impacted by the COVID-19 pandemic, including shutdowns of laboratories and delayed spending on instruments or chip consumables, we may not be able to sell our products or provide on-site, in-person customer service. A severe or prolonged economic downturn could result in a variety of risks to our business, including weakened demand for our products and our ability to raise additional capital when needed on favorable terms, if at all. A weak or declining economy could strain our customers' budgets or cause delays in their payments to us. Any of the foregoing could harm our business, and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our ability to raise capital, business, financial condition, results of operations and prospects.

Risks Related to Manufacturing and Supply

If we are unable to manufacture our instruments in high-quality commercial quantities successfully and consistently to meet demand, our growth will be limited.

We have manufactured approximately 450 of our instruments as of December 31, 2022. We currently manufacture our instruments and chip consumables at our facilities in Branford, Connecticut. To manufacture our products in the quantities that we believe will be required to meet anticipated market demand, we will need to increase manufacturing capacity, which could involve significant challenges and may require additional quality controls. We may not successfully complete any required increase to existing manufacturing capacity in a timely manner, or at all.

If there is a disruption to our manufacturing operations, whether from COVID-19 or some other disruptions, we will have no other means of producing our products until we restore our facility or develop alternative manufacturing facilities. Additionally, any damage to or destruction of our facility or equipment may significantly impair our ability to manufacture our products on a timely basis.

If we are unable to produce our products in sufficient quantities to meet anticipated customer demand, our business, financial condition, results of operations and prospects would be harmed. The lack of experience we have in producing commercial quantities of our products may also result in quality issues, and could result in product defects or errors or recalls.

We use biological and hazardous materials that require considerable expertise and expense for handling, storage and disposal and may result in claims against us.

We work with materials, including chemicals, biological agents and compounds that could be hazardous to human health and safety or the environment. Our operations also produce hazardous and biological waste products. Federal, state and local laws and regulations govern the use, generation, manufacture, storage, handling and disposal of these materials and wastes. We are subject to periodic inspections by federal, state and local authorities to ensure compliance with applicable laws. Compliance with applicable environmental laws and regulations is expensive, and current or future environmental laws and regulations may restrict our operations. If we do not comply with applicable regulations, we may be subject to fines and penalties.

In addition, we cannot eliminate the risk of accidental injury or contamination from these materials or wastes, which could cause an interruption of our commercialization efforts, research and development programs and business operations, as well as environmental damage resulting in costly clean-up and liabilities under applicable laws and regulations. In the event of contamination or injury, we could be liable for damages or penalized with fines in an amount exceeding our resources and our operations could be suspended or otherwise adversely affected. Furthermore, environmental laws and regulations are complex, change frequently and have tended to become more stringent. We cannot predict the impact of such changes and cannot be certain of our future compliance.

Our manufacturing operations are dependent upon third party suppliers, including single source suppliers, making us vulnerable to external factors such as supply shortages and price fluctuations, which could harm our business.

We are subject to the risks inherent in the manufacturing of our products, including industrial accidents, environmental events, strikes and other labor disputes, capacity constraints, as well as global shortages, disruptions in supply chain and loss or impairment of key suppliers, as well as natural disasters and other external factors over which we have no control. Our products contain several critical components, including lasers, circuit boards, antibodies and reagents. Some of the suppliers of critical components or materials are single source suppliers. Although we believe there are suitable alternative suppliers for these components, the replacement of existing suppliers or the identification and qualification of suitable second sources may require significant time, effort and expense, and could result in delays in production, which could

negatively impact our business operations and revenue. We do not have supply agreements with certain suppliers of these critical components and materials beyond purchase orders and, although we maintain a safety stock inventory at our facilities in Branford, Connecticut for certain critical components, forecasted amounts may be inaccurate and we may experience shortages as a result of serious supply problems with these suppliers. There can be no assurance that our supply of components will not be limited, interrupted, or of satisfactory quality or continue to be available at acceptable prices. In addition, loss of any critical component provided by a single source supplier could require us to change the design of our manufacturing process based on the functions, limitations, features and specifications of the replacement components.

In addition, several other non-critical components and materials that comprise our products are currently manufactured by a single supplier or a limited number of suppliers. In certain of these cases, we have not yet qualified alternate suppliers. A supply interruption or an increase in demand beyond our current suppliers' capabilities could harm our ability to manufacture our products unless and until new sources of supply are identified and qualified. Our reliance on these suppliers subjects us to a number of risks that could harm our business, including:

- interruption of supply resulting from modifications to or discontinuation of a supplier's operations;
- trade disputes or other political conditions or economic conditions;
- delays in the manufacturing operations of our suppliers, or in the delivery of parts and components to support such manufacturing operations, due to the impact of public health issues, endemics or pandemics, such as COVID-19;
- delays in product shipments resulting from uncorrected defects, reliability issues, or a supplier's variation in a component;
- a lack of long-term supply arrangements for key components with our suppliers;
- inability to obtain adequate supply in a timely manner, or to obtain adequate supply on commercially reasonable terms;
- difficulty and cost associated with locating and qualifying alternative suppliers for our components in a timely manner;
- a modification or change in a manufacturing process or part that unknowingly or unintentionally negatively impacts the operation of our platform;
- production delays related to the evaluation and testing of products from alternative suppliers, and corresponding regulatory qualifications;
- delay in delivery due to our suppliers prioritizing other customer orders over ours;
- damage to our brand reputation caused by defective components produced by our suppliers;
- increased cost of our warranty program due to product repair or replacement based upon defects in components produced by our suppliers; and
- fluctuation in delivery by our suppliers due to changes in demand from us or their other customers.

Any interruption in the supply of components or materials, or our inability to obtain substitute components or materials from alternate sources at acceptable prices in a timely manner, could result in increased costs and impair our ability to meet the demand of our customers, any of which would have an adverse effect on our business, financial condition, results of operations and prospects.

We forecast sales to determine requirements for components and materials used in our instruments, and if our forecasts are incorrect, we may experience delays in shipments or increased inventory costs.

We keep limited materials, components and finished products on hand. To manage our operations with our third party suppliers, we forecast anticipated product orders and material requirements to predict our inventory needs and enter into purchase orders on the basis of these requirements. Several components of our products require an order lead time of 3 months to 6 months. Our limited historical commercial experience and rapid growth may not provide us with enough data to consistently and accurately predict future demand. If our business expands and our demand for components and materials increase beyond our estimates, our suppliers may be unable to meet our demand. In addition, if we underestimate our component and material requirements, we may have inadequate inventory, which could interrupt, delay, or prevent delivery of our products to our customers. By contrast, if we overestimate our component and material requirements, we may have excess inventory, which would increase our expenses. Any of these occurrences would negatively affect our financial performance and business results.

Shipping is a critical part of our business and any changes in our shipping arrangements or damages or losses sustained during shipping could adversely affect our business, financial condition, results of operations and prospects.

We currently rely on third party vendors for our shipping. If we are not able to negotiate acceptable pricing and other terms with these entities or they experience performance problems or other difficulties, it could negatively impact our operating results and our customers' experience. In the past, some of our products have sustained serious damage in transit and were not repairable. Although we have taken steps to improve our shipping procedures, there is no guarantee our products will not become damaged or lost in transit in the future. If a product is damaged in transit, it may result in a substantial delay in the fulfillment of the customer's order, and depending on the type and extent of the damage and whether the incident is covered by insurance, it may result in a substantial financial loss. If our products are not delivered in a timely fashion or are damaged or lost during the delivery process, our customers could become dissatisfied and cease using our products or services, which would adversely affect our business, financial condition, results of operations and prospects.

If our facilities are damaged or become inoperable, we will be unable to continue to research, develop and manufacture our products and, as a result, our business, financial condition, results of operations and prospects may be adversely affected until we are able to secure a new facility.

We do not have redundant facilities for the final assembly of our products. Our facilities and equipment would be costly to replace and could require substantial lead-time to repair or replace. Our facilities may be harmed or rendered inoperable by natural or man-made disasters, including, but not limited to, tornadoes, flooding, fire and power outages. Such disasters may render it difficult or impossible to manufacture our products and conduct our research and development activities for new products. The inability to perform those activities, combined with our limited materials, components and finished products, may result in the inability to continue manufacturing or supplying our products during such periods and the loss of customers or harm to our reputation. Although we possess insurance for damage to our facilities and the disruption of our business, this insurance may not be sufficient to cover all of our potential losses and this insurance may not continue to be available to us on acceptable terms, or at all.

If we fail to maintain our numerous contractual relationships, our business, results of operations and financial condition could be adversely affected.

We are party to numerous contracts in the normal course of our business, including our supply and distribution agreements. In the aggregate, these contractual relationships are necessary for us to operate our business. From time to time, we amend, terminate or negotiate our contracts. We may also periodically be subject to, or make claims of breach of contract, or threaten legal action relating to our contracts. These actions may result in litigation. At any one time, we have a number of negotiations under way for new or amended commercial agreements. We devote substantial time, effort and expense to the administration and negotiation of contracts involved in our business. However, these contracts may not continue in effect past their current term or we may not be able to negotiate satisfactory contracts in the future with current or new business partners, which may adversely affect our business, financial condition, results of operations and prospects.

Risks Related To Government Regulation

If our current or future products become subject to FDA or other related international regulation, the regulatory clearance or approval and the maintenance of continued and post-market regulatory compliance for such products will be expensive, time-consuming, and uncertain both in timing and in outcome.

We make our platform, which includes our instruments, chip consumables and software, available to customers as research-use-only ("RUO") products. While products which are marketed and sold for RUO are not generally subject to regulation by the Food and Drug Administration (the "FDA"), regulatory requirements related to marketing, selling, and distribution of RUO products could change or be uncertain. Additionally, even if our products are labeled, promoted, and intended as RUO, the FDA or comparable agencies of other countries could disagree with our conclusion that our products are intended for research use only or deem our sales, marketing and promotional efforts as being inconsistent with RUO products. If the FDA or other regulatory authorities assert that any of our RUO products are subject to regulatory clearance or approval, our business, financial condition, results of operations and prospects could be adversely affected.

In the event that we decide in the future to develop medical device products or modify our existing products in a manner intended for clinical or diagnostic uses, or if our existing platform were ever to be deemed a medical device by the FDA, we would be required in the United States to either receive clearance under Section 510(k) of the Federal Food, Drug, and Cosmetic Act or approval of a premarket approval application from the FDA, unless an exemption applies, prior to marketing any such product. The process of obtaining approval or clearance from the FDA for new products, or with

respect to enhancements or modifications to existing products, could take a significant period of time, require the expenditure of substantial resources, involve rigorous preclinical and clinical testing, require changes to products or result in limitations on the indicated uses of products. There can be no assurance that we would receive the required approvals or clearances for any new products or for modifications to our existing products on a timely basis or that any approval or clearance would not be subsequently withdrawn or conditioned upon extensive post-market study requirements. Moreover, even if we were to receive FDA clearance or approval of new products or modifications to existing products, we would be required to comply with extensive regulations relating to the development, research, clearance, approval, distribution, marketing, advertising and promotion, manufacture, adverse event reporting, recordkeeping, import and export of such products, which could substantially increase our operating costs and have a material impact on our business, profits and results of operations. Failure to comply with applicable regulations could jeopardize our ability to sell our products and result in enforcement actions such as warning letters, fines, injunctions, civil penalties, termination of distribution, recalls or seizures of products, delays in the introduction of products into the market, total or partial suspension of production, refusal to grant future clearances or approvals, withdrawals or suspensions of current approvals, resulting in prohibitions on sales of our products, and in the most serious cases, criminal penalties. Occurrence of any of the foregoing could harm our reputation, business, financial condition, results of operations and prospects.

Our employees, consultants, distributors and commercial partners may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements, and insider trading.

We are exposed to the risk of fraud or other misconduct by our employees, consultants, distributors and commercial partners. Misconduct by these parties could include intentional failures to comply with the applicable laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to us. These laws and regulations may restrict or prohibit a wide range of pricing, discounting and other business arrangements. Such misconduct could result in legal or regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter employee misconduct, and any other precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant civil, criminal and administrative penalties, which could have a significant impact on our business. Whether or not we are successful in defending against such actions or investigations, we could incur substantial costs, including legal fees and divert the attention of management in defending ourselves against any of these claims or investigations.

If we fail to comply with certain healthcare laws, including fraud and abuse laws, we could face substantial penalties and our business, results of operations, financial condition, and prospects could be adversely affected.

Even though we do not order healthcare services or bill directly to Medicare, Medicaid, or other third-party payors, certain federal and state healthcare laws and regulations pertaining to fraud and abuse may be applicable to our business. We could be subject to healthcare fraud and abuse laws of both the federal government and the states in which we conduct our business. Because of the breadth of these laws and the narrowness of available statutory and regulatory exceptions, it is possible that some of our business activities could be subject to challenge under one or more of such laws. If we or 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 administrative, civil and criminal penalties, damages, fines, imprisonment, and the curtailment or restructuring of our operations, any of which could materially adversely affect our ability to operate our business and our financial results.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain sufficient intellectual property protection for our products and technologies, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our products may be impaired.

We rely on patent protection as well as trademark, copyright, trade secret and other intellectual property rights protection and contractual restrictions to protect our proprietary products and technologies, all of which provide limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. If we fail to obtain, maintain, protect and enforce our intellectual property, third parties may be able to compete more effectively against us. In addition, we may incur substantial litigation costs in our attempts to recover or restrict use of our intellectual property.

To the extent our intellectual property offers inadequate protection, or is found to be invalid or unenforceable, we would be exposed to a greater risk of direct competition. If our intellectual property does not provide adequate coverage of our products, our competitive position could be adversely affected, as could our business, financial condition, results of operations and prospects. Both the patent application process and the process of managing patent and other intellectual property disputes can be time-consuming and expensive.

Our success depends in large part on our and our licensors' ability to obtain and maintain protection of the intellectual property we may own solely and jointly with, or license from, third parties, particularly patents, in the United States and other countries with respect to our products and technologies. We apply for patents covering our products and technologies and uses thereof, as we deem appropriate. However, obtaining and enforcing patents is costly, time-consuming and complex, and we may fail to apply for patents on important products and technologies in a timely fashion or at all, or we may fail to apply for patents in potentially relevant jurisdictions. We may not be able to file and prosecute all necessary or desirable patent applications, or maintain, enforce and protect any patents that may issue from such patent applications, at a reasonable cost or in a timely manner or in all jurisdictions. It is possible that defects of form in the preparation or filing of our patents or patent applications may exist, or may arise in the future, for example with respect to proper priority claims, inventorship, claim scope or requests for patent term adjustments. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. If we delay filing a patent application, and a competitor files a patent application on the same or similar invention before we do, our ability to secure patent rights may be limited and we may not be able to patent the invention at all. Even if we can patent the invention, we may be able to patent only a limited scope of the invention, and the limited scope may be inadequate to protect our products and technologies, or to block a competitor's products and technologies that are similar or adjacent to ours. Our earliest patent filings have been published. A competitor may review our published patents and arrive at the same or similar technology advances for our products as we developed. If the competitor files a patent application on such an advance before we do, then we may no longer be able to protect that aspect of our products and technologies and we may require a license from the competitor, which may not be available on commercially viable terms. Moreover, we may not develop additional proprietary products, methods and technologies that are patentable. We may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the rights to patents licensed from or to third parties. Therefore, these patents and applications may not be prosecuted and enforced by such third parties in a manner consistent with the best interests of our business.

In addition, the patent position of life sciences technology companies generally is highly uncertain, involves complex legal and factual questions, and has been the subject of much litigation in recent years. Changes in either the patent laws or in interpretations of patent laws in the United States or other countries or regions may diminish the value of our intellectual property. As a result, the issuance, scope, validity, enforceability, and commercial value of our patent rights are highly uncertain. It is possible that none of our pending patent applications will result in issued patents in a timely fashion or at all, and even if patents are granted, they may not provide a basis for intellectual property protection of commercially viable products or services, may not provide us with any competitive advantages, or may be challenged, narrowed and invalidated by third parties. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. It is possible that third parties will design around our current or future patents such that we cannot prevent such third parties from using similar technologies and commercializing similar products to compete with us. Some of our owned or licensed patents or patent applications may be challenged at a future point in time and we may not be successful in defending any such challenges made against our patents or patent applications. Any successful third-party challenge to our patents could result in the narrowing, unenforceability or invalidity of such patents and increased competition to our business. The outcome of patent litigation or other proceeding can be uncertain, and any attempt by us to enforce our patent rights against others or to challenge the patent rights of others may not be successful, or, regardless of success, may take substantial time and result in substantial cost, and may divert our efforts and attention from other aspects of our business. Any of the foregoing events could have a material adverse effect on our business, financial condition and results of operations.

Further, while software and other of our proprietary works may be protected under copyright law, we have chosen not to register any copyrights in these works, and instead, we primarily rely on protecting our software as a trade secret. In order to bring a copyright infringement lawsuit in the United States, the copyright must be registered. Accordingly, the remedies and damages available to us for unauthorized use of our software may be limited.

The U.S. law relating to the patentability of certain inventions in the life sciences technology industry is uncertain and rapidly changing, which may adversely impact our existing patents or our ability to obtain patents in the future.

Changes in either the patent laws or interpretation of the patent laws in the United States or in other jurisdictions could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of

issued patents. For instance, under the Leahy-Smith America Invents Act, or the America Invents Act, enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application is entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we or our licensors were the first to either file any patent application related to our products and other proprietary technologies or invent any of the inventions claimed in our or our licensor's patents or patent applications. Even where we have a valid and enforceable patent, we may not be able to exclude others from practicing the claimed invention where the other party can show that they used the invention in commerce before our filing date or the other party benefits from a compulsory license.

In addition, the America Invents Act implemented changes that affect the way patent applications are prosecuted, redefine prior art and provide more efficient and cost-effective avenues for competitors or other third parties to challenge the validity of our patents. These changes include allowing third-party submission of prior art to the United States Patent and Trademark Office ("USPTO") during patent prosecution and additional procedures to challenge the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, inter partes review and derivation proceedings. Further, because of a lower evidentiary standard in these USPTO post-grant proceedings compared to the evidentiary standard in United States federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. The America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Various courts, including the U.S. Supreme Court, have rendered decisions that impact the scope of patentability of certain inventions or discoveries relating to the life sciences technology. Specifically, these decisions stand for the proposition that patent claims that recite laws of nature are not themselves patentable unless those patent claims have sufficient additional features that provide practical assurance that the processes are genuine inventive applications of those laws rather than patent drafting efforts designed to monopolize the law of nature itself. What constitutes a "sufficient" additional feature is uncertain. Furthermore, in view of these decisions, since December 2014, the USPTO has published and continues to publish revised guidelines for patent examiners to apply when examining process claims for patent eligibility.

In addition, U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that may have a material adverse effect on our ability to obtain new patents and to defend and enforce our existing patents and patents that we might obtain in the future.

We cannot assure you that our patent portfolio will not be negatively impacted by the current uncertain state of the law, new court rulings or changes in guidance or procedures issued by the USPTO or other similar patent offices around the world. From time to time, the U.S. Supreme Court, other federal courts, the U.S. Congress or the USPTO may change the standards of patentability, scope and validity of patents within the life sciences technology and any such changes, or any similar adverse changes in the patent laws of other jurisdictions, could have a negative impact on our business, financial condition, prospects and results of operations.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on our products and technologies in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and we and our licensors may encounter difficulties in protecting and defending such rights in foreign jurisdictions. Consequently, we and our licensors may not be able to prevent third parties from practicing our inventions in some or all countries outside the United States, or from selling or importing products made using our or our licensors' inventions in and into the United States or other jurisdictions. Competitors and other third parties may use our technologies

in jurisdictions where we have not obtained patent protection to develop their own products and technologies and may also export infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products. Our and our licensors' patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. In addition, certain countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to other parties. Furthermore, many countries limit the enforceability of patents against other parties, including government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of any patents.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of many other countries do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for us to stop the misappropriation or other violations of our intellectual property rights including infringement of our patents in such countries. The legal systems in certain countries may also favor state-sponsored or companies headquartered in particular jurisdictions over our first-in-time patents and other intellectual property protection. The absence of harmonized intellectual property protection laws and effective enforcement makes it difficult to ensure consistent respect for patent, trade secret, and other intellectual property rights on a worldwide basis. As a result, it is possible that we will not be able to enforce our rights against third parties that misappropriate our proprietary technology in those countries.

Proceedings to enforce our or our licensors' patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business, could put our and our licensors' patents at risk of being invalidated or interpreted narrowly and our and our licensors' patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We and our licensors may not prevail in any lawsuits that we or any of our licensors initiate, or that are initiated against us or any of our licensors, and the damages or other remedies awarded, if any, may not be commercially meaningful. In addition, changes in the law and legal decisions by courts in the United States and foreign countries may affect our ability to obtain adequate protection for our products, services and other technologies and the enforcement of intellectual property. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license. Any of the foregoing events could have a material adverse effect on our business, financial condition, results of operations and prospects.

Any of our issued patents covering our products could be narrowed or found invalid or unenforceable if challenged in court or before administrative bodies in the United States or abroad, including the USPTO.

Our owned and licensed patents and patent applications may be subject to validity, enforceability and priority disputes. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability. Some of our patents or patent applications (including licensed patents and patent applications) may be challenged at a future point in time in opposition, derivation, reexamination, inter partes review, post-grant review or interference or other similar proceedings. Any successful third-party challenge to our or our licensors' patents in this or any other proceeding could result in the unenforceability or invalidity of such patents, which may lead to increased competition to our business, which could have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, if we or our licensors initiate legal proceedings against a third party to enforce a patent covering our products, the defendant could counterclaim that such patent covering our products, as applicable, is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. There are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the relevant patent office, or made a misleading statement, during prosecution. A litigant or the USPTO itself could challenge our patents on this basis even if we believe that we have conducted our patent prosecution in accordance with the duty of candor and in good faith. The outcome following such a challenge is unpredictable. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include ex parte re-examination, inter partes review, post-grant review and derivation proceedings in the U.S., and equivalent proceedings in non-U.S. jurisdictions, such as opposition proceedings. Such proceedings could result in revocation of or amendment to our or our licensors' patents in such a way that they no longer cover and protect our products. With respect to the validity of our or our licensors' patents, for example, we cannot be certain that there is no invalidating prior art of which we, our licensors, our or their respective patent counsel and the patent examiner were unaware during prosecution. The outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. If a defendant or other third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on

certain aspects of our products and technologies, which could have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with us to license intellectual property, or develop or commercialize current or future products.

We may not be aware of all third-party intellectual property rights potentially relating to our products. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until approximately 18 months after filing or, in some cases, not until such patent applications issue as patents. We might not have been the first to make the inventions covered by each of our pending patent applications and we might not have been the first to file patent applications for these inventions. To determine the priority of these inventions, we may have to participate in interference proceedings, derivation proceedings or other post-grant proceedings declared by the USPTO, or other similar proceedings in non-U.S. jurisdictions, that could result in substantial cost to us and the loss of valuable patent protection. The outcome of such proceedings is uncertain. No assurance can be given that other patent applications will not have priority over our patent applications. In addition, changes to the patent laws of the United States allow for various post-grant opposition proceedings that have not been extensively tested, and their outcome is therefore uncertain. Furthermore, if third parties bring these proceedings against our patents, regardless of the merit of such proceedings and regardless of whether we are successful, we could experience significant costs and our management may be distracted. Any of the foregoing events could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we are unable to protect the confidentiality of our trade secrets, the value of our technology could be materially adversely affected and our business could be harmed.

We rely heavily on trade secrets and confidentiality agreements to protect our unpatented know-how, technology and other proprietary information and to maintain our competitive position. Certain elements of our products and technologies, including components of our software and processes for manufacturing, may involve proprietary know-how, information or technology that is not covered by patents. As such, we may consider trade secrets and know-how to be our primary intellectual property with respect to such aspects of our products and technologies. However, trade secrets and know-how can be difficult to protect. In particular, we anticipate that with respect to our technologies, these trade secrets and know how will over time be disseminated within the industry through independent development, the publication of journal articles describing the methodology, and the movement of personnel from academic to industry scientific positions.

In addition to pursuing patents on our technology, we take steps to protect our intellectual property and proprietary technology by entering into agreements, including confidentiality agreements, non-disclosure agreements and intellectual property assignment agreements, with our employees, consultants, academic institutions, corporate partners and, when needed, our advisers. However, we cannot be certain that such agreements have been entered into with all relevant parties that may have or have had access to our trade secrets or proprietary technology and processes, and we cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors or other third parties will not otherwise gain access (such as through cybersecurity breach) to our trade secrets or independently develop substantially equivalent information and techniques. For example, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized disclosure, which could adversely impact our ability to establish or maintain a competitive advantage in the market. If we are required to assert our rights against such parties, it could result in substantial costs and be a distraction to management. Depending on the parties involved in such a breach, the available remedies may not provide adequate compensation for the value of the proprietary information disclosed to a third party.

Monitoring unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to enforce a claim that a third party had wrongfully obtained and was using our trade secrets, it would be expensive and time-consuming, it could distract our personnel, and the outcome would be unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets, if at all, and the damages and other remedies available for improper disclosure of proprietary information can differ substantially from those in the United States. We may need to share our proprietary information, including trade secrets, with future business partners, collaborators, contractors and other third parties located in countries with a heightened risk of theft of trade secrets, including through direct intrusion by private parties or foreign actors, and those affiliated with or controlled by state actors.

We also seek to preserve the integrity and confidentiality of our confidential proprietary information by maintaining physical security of our premises and physical and electronic security of our information technology systems, but it is possible that these security measures could be breached and we may not have adequate remedies for such breach. If any of our confidential proprietary information were to be lawfully obtained or independently developed by a competitor or other third party, absent patent protection, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position. Competitors or third parties could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts, design around our protected technology, develop their own competitive technologies that fall outside the scope of our intellectual property rights or independently develop our technologies without reference to our trade secrets. If any of our trade secrets were to be disclosed to or independently discovered by a competitor or other third party, it could materially and adversely affect our business, financial condition, results of operations and prospects.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers or claims otherwise challenging the inventorship of our patents and other intellectual property.

We have employed and expect to employ individuals who were previously employed at universities or other companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants, advisors and independent contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that our employees, advisors, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information of their former employers or other third parties, or to claims that we have improperly used or obtained such trade secrets. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel and face increased competition to our business. Any such litigation or the threat thereof may adversely affect our ability to hire employees or contract with advisors, contractors and consultants. A loss of key research personnel work product could hamper or prevent our ability to commercialize potential products, which could harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management. This type of litigation or proceeding could substantially increase our operating losses and reduce our resources available for development activities. Some of our competitors may be able to sustain the costs of this type of litigation or proceedings more effectively than we can because of their substantially greater financial resources.

Furthermore, we or our licensors may in the future be subject to claims by former employees, consultants or other third parties asserting an ownership right in our owned or licensed patents or patent applications as an inventor or co-inventor. The failure to name the proper inventors on a patent application can result in the patents issuing thereon being unenforceable. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in developing our products or as a result of questions regarding co-ownership of potential joint inventions. Litigation may be necessary to resolve these and other claims challenging inventorship and/or ownership. An adverse determination in any such proceeding may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar technology, without payment to us, or could limit the duration of the patent protection covering our technology and products. Such challenges may also result in our inability to develop, manufacture or commercialize our products without infringing third-party patent rights. Also, our licensors may have relied on third-party consultants or collaborators or on funds from third parties, such as the U.S. government, such that our licensors may not be the sole and exclusive owners of the patents we in-license. If other third parties have ownership rights or other rights to our in-licensed patents, they may be able to license such patents to our competitors, and our competitors could market competing products and technology. Any of the foregoing could harm our business, financial condition, results of operations and prospects.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Furthermore, individuals executing agreements with us may have pre-existing or competing obligations to a third party, such as an academic institution, and thus an agreement with us may be ineffective in perfecting ownership of inventions developed by that

individual, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

We may not be able to protect and enforce our trademarks and trade names or build name recognition in our markets of interest thereby harming our competitive position.

The registered or unregistered trademarks or trade names that we own may be challenged, infringed, circumvented, declared generic, lapsed or determined to be infringing on or dilutive of other marks. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition. In addition, third parties have filed, and may in the future file, for registration of trademarks similar or identical to our trademarks, thereby impeding our ability to build brand identity and possibly leading to market confusion. If they succeed in registering or developing common law rights in such trademark or any other trademarks that are similar or identical to our trademarks, and if we are not successful in challenging such rights and defending against challenges to our trademarks, we may not be able to use such trademarks to develop brand recognition of our technologies, products or services. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Further, we may in the future enter into agreements with owners of such third party trade names or trademarks to avoid potential trademark litigation which may limit our ability to use our trade names or trademarks in certain fields of business. We may also license our trademarks and trade names to third parties, such as distributors. Though these license agreements may provide guidelines for how our trademarks and trade names may be used, a breach of these agreements or misuse of our trademarks and trade names by our licensees may jeopardize our rights in or diminish the goodwill associated with our trademarks and trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively, and our business, financial condition, results of operations and prospects may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources. Any of the foregoing events could have a material adverse effect on our business, financial condition and results of operations.

Patent terms may be inadequate to protect our competitive position on our products for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. While extensions may be available, the life of a patent, and the protection it affords, is limited. In the United States, a patent's term may, in certain cases, be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over a commonly owned patent or a patent naming a common inventor and having an earlier expiration date. Even if patents covering our products are obtained, once the patent life has expired, we may be open to competition from competitive products. If one of our products requires extended development, testing and/or regulatory review, patents protecting such products might expire before or shortly after such products are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours, which could have a material adverse effect on our business, financial condition and results of operations.

We may become involved in lawsuits to defend against third-party claims of infringement, misappropriation or other violations of intellectual property or to protect or enforce our intellectual property, any of which could be expensive, time consuming and unsuccessful, and may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our ability and the ability of future collaborators to develop, manufacture, market and sell our products and use our products and technologies without infringing, misappropriating or otherwise violating the intellectual property rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the life sciences technology sector, as well as administrative proceedings for challenging patents, including interference, derivation, inter partes review, post grant review, and reexamination proceedings before the USPTO, or oppositions and other comparable proceedings in foreign jurisdictions. We may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights alleging that our products, manufacturing methods, software and/or technologies infringe, misappropriate or otherwise violate their intellectual property rights.

Numerous issued patents and pending patent applications that are owned by third parties exist in the fields in which we are developing our products and technologies. It is not always clear to industry participants, including us, the claim scope that may issue from pending patent applications owned by third parties or which patents cover various types of products,

technologies or their methods of use or manufacture. Thus, because of the large number of patents issued and patent applications filed in our fields, it is difficult to conclusively assess our freedom to operate without infringing on third party rights and there may be a risk that third parties, including our competitors, may allege they have patent rights encompassing our products, technologies or methods and that we are employing their proprietary technology without authorization. We cannot guarantee that any of our patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of our products in any jurisdiction. The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect. For example, we may incorrectly determine that our products are not covered by a third-party patent or may incorrectly predict whether a third-party's pending application will issue with claims of relevant scope. Our determination of the expiration date of any patent in the United States or abroad that we consider relevant may be incorrect. Our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our products.

If third parties, including our competitors, believe that our products or technologies infringe, misappropriate or otherwise violate their intellectual property, such third parties may seek to enforce their intellectual property, including patents, by filing an intellectual property-related lawsuit, including patent infringement lawsuit, against us. Even if we believe third-party intellectual property claims are without merit, there is no assurance that a court would find in our favor on questions of infringement, validity, enforceability, or priority. The patents and patent applications such third parties seek to enforce could be construed to cover our products and technologies. If any of these third parties were to assert these patents against us and we are unable to successfully defend against any such assertion, we may be required, including by court order, to cease the development and commercialization of the infringing products or technology and we may be required to redesign such products and technologies so they do not infringe such patents, which may not be possible or may require substantial monetary expenditures and time. We could also be required to pay damages, which could be significant, including treble damages and attorneys' fees if we are found to have willfully infringed such patents. We could also be required to obtain a license to such patents in order to continue the development and commercialization of the infringing product or technology. However, such a license may not be available on commercially reasonable terms or at all, including because certain of these patents are held by or may be licensed to our competitors. Even if such license were available, it may require substantial payments or cross-licenses under our intellectual property rights, and it may only be available on a non-exclusive basis, in which case third parties, including our competitors, could use the same licensed intellectual property to compete with us. Additionally, if our products are found to infringe the intellectual property rights of third parties, these third parties may assert infringement claims against our licensees and other parties with whom we have business relationships, and we may be required to indemnify those parties for any damages they suffer as a result of these claims. The claims may require us to initiate or defend protracted and costly litigation on behalf of licensees and other parties regardless of the merits of these claims. If any of these claims succeed, we may be forced to pay damages on behalf of those parties or may be required to obtain licenses for the products they use. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operation or prospects.

We may choose to challenge, including in connection with any allegation of patent infringement by a third party, the patentability, validity or enforceability of any third-party patent that we believe may have applicability in our field, and any other third-party patent that may be asserted against us. Such challenges may be brought either in court or by requesting that the USPTO, European Patent Office ("EPO"), or other foreign patent offices review the patent claims, such as in an ex-parte reexamination, inter partes review, post-grant review proceeding or opposition proceeding. However, there can be no assurance that any such challenge by us or any third party will be successful. Even if such proceedings are successful, these proceedings are expensive and may consume our time or other resources, distract our management and technical personnel. There can be no assurance that our defenses of non-infringement, invalidity or unenforceability will succeed.

Third parties, including our competitors, could be infringing, misappropriating or otherwise violating our owned and in-licensed intellectual property rights. Monitoring unauthorized use of our intellectual property is difficult and costly. We may not be able to detect unauthorized use of, or take appropriate steps to enforce, our intellectual property rights. From time to time, we seek to analyze our competitors' products and services, and may in the future seek to enforce our rights against potential infringement, misappropriation or violation of our intellectual property. However, the steps we have taken to protect our intellectual property rights may not be adequate to enforce our rights as against such infringement, misappropriation or violation of our intellectual property. Any inability to meaningfully enforce our intellectual property rights could harm our ability to compete and reduce demand for our products and technologies.

Litigation proceedings may be necessary for us to enforce our patent and other intellectual property rights. In any such proceedings, a court may refuse to stop the other party from using the technology at issue on the grounds that our owned

and in-licensed patents do not cover the technology in question. Further, in such proceedings, the defendant could counterclaim that our intellectual property is invalid or unenforceable and the court may agree, in which case we could lose valuable intellectual property rights, which could allow third parties to commercialize technology or products similar to ours and compete directly with us, without payment to us, or could require us to obtain license rights from the prevailing party in order to be able to manufacture or commercialize our products without infringing such party's intellectual property rights, and if we are unable to obtain such a license, we may be required to cease commercialization of our products and technologies, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects. The outcome in any such proceedings are unpredictable.

Regardless of whether we are defending against or asserting any intellectual property-related proceeding, any such intellectual property-related proceeding that may be necessary in the future, regardless of outcome, could result in substantial costs and diversion of resources and could have a material adverse effect on our business, financial condition, results of operations and prospects. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions, or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Some of our competitors and other third parties may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. We may not have sufficient financial or other resources to adequately conduct these types of litigation or proceedings. Any of the foregoing, or any uncertainties resulting from the initiation and continuation of any litigation, could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, financial condition, results of operations and prospects. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar adverse effect on our business, financial condition, results of operations and prospects.

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

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States at several stages over the lifetime of the patents and/or applications. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In certain circumstances, we rely on our licensors to pay these fees due to the U.S. and non-U.S. patent agencies and to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In many cases, an inadvertent lapse, including due to the effect of the COVID-19 pandemic on us, our licensors or our and our licensors' patent maintenance vendors, can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors and other third parties may be able to enter the market without infringing our patents, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

We currently rely on licenses from third parties, and in the future may rely on additional licenses from other third parties, and if we lose any of these licenses, then we may be subjected to future litigation.

We are, and may in the future become, a party to license agreements that grant us rights to use certain intellectual property, including patents and patent applications, typically in certain specified fields of use. Currently, we rely on an in-license from certain third parties with respect to certain patent rights relating to multiplexed detection and high throughput single-cell polyomics, certain patent rights relating to methods and compositions for quantifying metabolites and certain patent rights relating to the detection of target molecules. We may in the future rely on licenses from other third parties with respect to our technology. Our rights to use licensed technology in our business are subject to the continuation of and compliance with the terms of these licenses and any licenses we may enter into in the future. Some of these licensed rights provide us with freedom to operate for aspects of our products and technologies. As a result, any termination of these licenses could result in the loss of significant rights and could harm our ability to develop, manufacture and commercialize our products. We may need to obtain additional licenses from others to advance our research, development and

commercialization activities. For instance, to the extent any additional intellectual property developed by our licensors is not included under our existing license agreements are necessary or useful for our products, we would need to negotiate for additional licenses to such additional intellectual property. Such licenses may not be available on commercially reasonable terms or at all, or may be non-exclusive.

Our success may depend in part on the ability of our licensors and any future licensors to obtain, maintain and enforce patent protection for our licensed intellectual property. Under our current license agreements and under any licenses we may enter into in the future, we may not have the right to control the prosecution, maintenance or enforcement of patents and patent applications that are licensed to us. Our licensors or any future licensors may not successfully prosecute the patent applications we license or prosecute such patent applications in our best interest. Even if patents issue in respect of these patent applications, our licensors and any future licensors may fail to maintain these patents, may determine not to pursue litigation against other companies that are infringing these patents or may pursue such litigation less aggressively than we would. Without protection for the intellectual property we license, other companies might be able to offer substantially identical products and technologies for sale, which could materially adversely affect our competitive business position and harm our business, financial condition, results of operations and prospects.

Certain of our current license agreements impose, and future agreements may impose, various diligence, commercialization, milestone payment, royalty, insurance and other obligations on us and require us to meet development timelines, or to exercise commercially reasonable efforts to develop and commercialize licensed products, in order to maintain the licenses. If we fail to comply with these obligations (including as a result of COVID-19 impacting our operations), we use the licensed intellectual property in an unauthorized manner or we are subject to bankruptcy-related proceedings, the terms of these license agreements may be materially modified, such as by rendering currently exclusive licenses non-exclusive, or by giving our licensors the right to terminate their respective agreement with us, in which event we would not be able to develop or market products or technology covered by the licensed intellectual property. With respect to any license agreement under which we are a sublicensee, if our current or future sublicensor fails to comply with its obligations under its upstream license agreement with its licensor, such licensor may have the right to terminate the upstream license, which may terminate our sublicense. If this were to occur, we would no longer have rights to the applicable intellectual property unless we are able to secure our own direct license with the owner of the relevant rights, which may not be available on commercially reasonable terms or at all. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

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

- the scope of rights granted under the license agreements and other interpretation-related issues;
- our compliance with reporting, financial or other obligations under the license agreements;
- whether, and the extent to which, our products, technology and processes infringe on, misappropriate or otherwise violate the intellectual property of the licensors that is not subject to the licensing agreements;
- our right to sublicense the applicable intellectual or proprietary rights to third parties;
- our right to transfer or assign the license;
- our diligence obligations under the license agreements and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors; and
- the priority of invention of patented technology.

If we do not prevail in such disputes, we may lose any or all of our rights under such license agreements, experience significant delays in the development and commercialization of our products and technologies, or incur liability for damages, any of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. In addition, we may seek to obtain additional licenses from our licensors, and, in connection with obtaining such licenses, we may agree to amend our existing licenses in a manner that may be more favorable to the applicable licensor, including by agreeing to terms that could enable third parties, including our competitors, to receive licenses to a portion of the intellectual property that is subject to our existing licenses and to compete with our products.

Further, certain of our future agreements with third parties may limit or delay our ability to consummate certain transactions, may impact the value of those transactions, or may limit our ability to pursue certain activities. For example,

we may in the future enter into license agreements that are not assignable or transferable, or that require the licensor's express consent in order for an assignment or transfer to take place.

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

Absent the license agreements, we may infringe patents subject to those agreements, and if the license agreements are terminated, we may be subject to litigation by the licensor. Litigation could result in substantial costs to us and distract our management. If we do not prevail, we may be required to pay damages, including treble damages, attorneys' fees, costs and expenses and royalties or be enjoined from selling our products, which could adversely affect our ability to offer products or services, our ability to continue operations and our business, financial condition, results of operations and prospects.

If we cannot license rights to use technologies on reasonable terms, we may not be able to commercialize new products in the future.

We may identify third-party technology that we may need to license or acquire in order to develop or commercialize our products or technologies. However, we may be unable to secure such licenses or acquisitions. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us.

We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. In return for the use of a third party's technology, we may agree to pay the licensor royalties based on sales of our products or services. Royalties are a component of cost of products or technologies and affect the margins on our products. We may also need to negotiate licenses to patents or patent applications before or after introducing a commercial product. We may not be able to obtain necessary licenses to patents or patent applications, and our business may suffer if we are unable to enter into the necessary licenses on acceptable terms or at all, if any necessary licenses are subsequently terminated, if the licensor fails to abide by the terms of the license or fails to prevent infringement by third parties, or if the licensed intellectual property rights are found to be invalid or unenforceable.

Certain of our in-licensed patents are, and our future owned and in-licensed patents may be, subject to a reservation of rights by one or more third parties, including government march-in rights, that may limit our ability to exclude third parties from commercializing products similar or identical to ours.

Our owned and in-licensed patents may be subject to a reservation of rights by one or more third parties. For example, the U.S. government may have certain rights, including march-in rights, to patent rights and technology funded by the U.S. government under the Patent and Trademark Law Amendments Act, or the Bayh-Dole Act ("Bayh-Dole Act"). The U.S. government may have these rights in certain technologies licensed to us from certain third parties, including, to the extent any invention included within the following licensed patents has been funded by the U.S. government, certain patent rights relating to multiplexed detection and high throughput single-cell polyomics, methods and compositions for quantifying metabolites and the detection of target molecules. We utilize these technologies in various products, including our IsoCode and CodePlex chips consumables.

Under the Bayh-Dole Act, when new technologies are developed with government funding, in order to secure ownership of such patent rights, the recipient of such funding is required to comply with certain government regulations, including timely disclosing the inventions claimed in such patent rights to the U.S. government and timely electing title to such inventions. Any failure to timely elect title to such inventions may permit the U.S. government to, at any time, take title to such inventions. Additionally, the U.S. government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to use the invention or to have others use the invention on its behalf. If the government decides to exercise these rights, it is not required to engage us as its contractor in connection with

doing so. These rights may permit the U.S. government to disclose our confidential information to third parties and to exercise march-in rights to use or allow third parties to use our licensed technology. The U.S. government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. If the U.S. government exercises such march-in rights, we may receive compensation that is deemed reasonable by the U.S. government in its sole discretion, which may be less than what we might be able to obtain in the open market. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. While we currently believe such rights do not pose a material risk to our business, we cannot be sure that any licensed intellectual property will be free from governmental rights pursuant to the Bayh-Dole Act. Any exercise by the government of any of the foregoing rights could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, our current and future licensors may retain certain rights under their agreements with us, including the right to use the underlying technology for non-commercial academic and research use, to publish general scientific findings from research related to the technology, and to make customary scientific and scholarly disclosures of information relating to the technology. It is difficult to monitor whether our licensors limit their use of the technology to these uses, and we could incur substantial expenses to enforce our rights to our licensed technology in the event of misuse, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our products contain third-party open source software components and failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our products and provide third parties access to our proprietary software.

Our products contain software licensed by third parties under open source software licenses. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source software licensors generally do not provide support, warranties, indemnification or other contractual protections regarding infringement claims or the quality of the code. Some open source software licenses contain requirements that the licensee make its source code publicly available if the licensee creates modifications or derivative works using the open source software, depending on the type of open source software the licensee uses and how the licensee uses it. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source software licenses, be required to release the source code of our proprietary software to the public for free. This would allow our competitors and other third parties to create similar products with less development effort and time and ultimately could result in a loss of our product sales and revenue, which could have a material adverse effect on our business, financial condition, results of operations and prospects. Alternatively, to avoid the public release of the affected portions of our source code, we could be required to expend substantial time and resources to re-engineer some or all of our software. In addition, some companies that use third-party open source software have faced claims challenging their use of such open source software and their compliance with the terms of the applicable open source license. We may face claims from third parties claiming ownership of what we believe to be open source software, or claiming non-compliance with the applicable open source licensing terms, including claims that demand release of source code for the open source software, derivative works or our proprietary source code that was developed using, or that is distributed with, such open source software. These claims could also result in litigation and could require us to make our proprietary software source code freely available, devote additional research and development resources to re-engineer our platform, seek costly licenses from third parties or otherwise incur additional costs and expenses, any of which could result in reputational harm and would have a negative effect on our business and operating results. Use of open source software may also present additional security risks because the public availability of such software may make it easier for hackers and other third parties to compromise or attempt to compromise our platform.

Although we review our use of open source software to avoid subjecting our proprietary software to conditions we do not intend, the terms of many open source software licenses have not been interpreted by United States courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our products and proprietary software. Moreover, we cannot assure investors that our processes for monitoring and controlling our use of open source software in our products will be effective. If we are held to have breached the terms of an open source software license, we could be subject to damages, required to seek licenses from third parties to continue offering our products on terms that are not economically feasible, to re-engineer our products, to discontinue the sale of our products if re-engineering could not be accomplished on a timely basis, or to make generally available, in source code form, our proprietary code, any of which could adversely affect our business, financial condition, results of operations and prospects.

Intellectual property rights do not necessarily address all potential threats.

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

- others may be able to make products that are similar to products and technologies we may develop or utilize similar technology that are not covered by the claims of the patents that we own or license now or in the future;
- we, or our licensors, might not have been the first to make the inventions covered by the issued patent or pending patent application that we license or may own in the future;
- we, or our licensors, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing, misappropriating or otherwise violating our owned or licensed intellectual property rights;
- it is possible that our pending owned or licensed patent applications or those that we may own in the future will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business;
- we may choose not to file a patent for certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property; and
- our trade secrets or proprietary know-how may be unlawfully disclosed, thereby losing their trade secret or proprietary status.

Should any of these events occur, they could materially adversely affect our business, financial condition, results of operations and prospects.

Risks Related to Our Common Stock

Our amended and restated certificate of incorporation designates a state or federal court located within the State of Delaware as the exclusive forum for substantially all disputes between us and our stockholders, and also provides that the federal district courts will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, each of which could limit our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers, stockholders, or employees.

Our amended and restated certificate of incorporation provides that, subject to limited exceptions, the Court of Chancery for the State of Delaware will be the sole and exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, employees or stockholders to us or our stockholders;
- any action asserting a claim arising pursuant to any provision of our amended and restated certificate of incorporation, our amended and restated bylaws or the General Corporation Law of the State of Delaware, or as to which the General Corporation Law of the State of Delaware confers jurisdiction on the Court of Chancery of the State of Delaware; and
- any other action asserting a claim against us that is governed by the internal affairs doctrine.

As described below, this provision does not apply to suits brought to enforce any duty or liability created by the Securities Act of 1933, as amended (the "Securities Act") or the Securities Exchange Act of 1934, as amended (the

"Exchange Act"), or rules and regulations thereunder, or any other claim for which there is exclusive federal or concurrent federal and state jurisdiction.

Our amended and restated certificate of incorporation also provides that the federal district courts of the United States of America are the exclusive forum for the resolution of any complaint asserting a cause of action against us or any of our directors, officers, employees or agents and arising under the Securities Act. However, Section 22 of the Securities Act provides that federal and state courts have concurrent jurisdiction over lawsuits brought pursuant to the Securities Act or the rules and regulations thereunder. To the extent the exclusive forum provision restricts the courts in which claims arising under the Securities Act may be brought, there is uncertainty as to whether a court would enforce such a provision. We note that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. This provision does not apply to claims brought under the Exchange Act.

Any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock shall be deemed to have notice of and to have consented to these provisions. These provisions may impose additional litigation costs on stockholders in pursuing any such claims, particularly if the stockholders do not reside in or near the State of Delaware, or limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find these provisions of our amended and restated certificate of incorporation inapplicable to, or unenforceable in respect of, one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could adversely affect our business or financial condition.

Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the trading price of our common stock.

Certain provisions of our amended and restated certificate of incorporation and amended and restated bylaws and of state law may have anti-takeover effects and may delay, deter or prevent a takeover attempt that our stockholders might consider in their best interests. For example, such provisions or laws may prevent our stockholders from receiving the benefit from any premium to the market price of our common stock offered by a bidder in a takeover context. These anti-takeover provisions and laws may also make it more difficult for stockholders to elect directors of their choosing. Even in the absence of a takeover attempt, the existence of these anti-takeover provisions may adversely affect the prevailing market price of our common stock if they are viewed as discouraging takeover attempts in the future.

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

As of December 31, 2022, we had net operating loss carryforward ("NOLs") for federal purposes of approximately $12.7 million, which expire at various dates through 2033 and approximately $184.0 million which have no expiration. As of December 31, 2022, we also had state NOLs of approximately $124.4 million, which expire at various dates through 2043. We may use these NOLs to offset against taxable income for U.S. federal and state income tax purposes. However, Section 382 of the Internal Revenue Code of 1986, as amended, may limit the NOLs we may use in any year for U.S. federal income tax purposes in the event of certain changes in ownership of our company. A Section 382 "ownership change" generally occurs if one or more stockholders or groups of stockholders who own at least 5% of a company's stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. Similar rules may apply under state tax laws. We have not conducted a 382 study to determine whether the use of our NOLs is impaired. We may have previously undergone multiple "ownership changes." In addition, future issuances or sales of our stock, including certain transactions involving our stock that are outside of our control, could result in future "ownership changes." "Ownership changes" that have occurred in the past or that may occur in the future could result in the imposition of an annual limit on the amount of pre-ownership change NOLs and other tax attributes we can use to reduce our taxable income, potentially increasing and accelerating our liability for income taxes, and also potentially causing those tax attributes to expire unused. States may impose other limitations on the use of our NOLs. Any limitation on using NOLs could, depending on the extent of such limitation and the NOLs previously used, result in our retaining less cash after payment of U.S. federal and state income taxes during any year in which we have taxable income, rather than losses, than we would be entitled to retain if such NOLs were available as an offset against such income for U.S. federal and state income tax reporting purposes, which could adversely impact our operating results.

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

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). For so long as we remain an emerging growth company, we are permitted by SEC rules and plan to rely on exemptions from certain disclosure requirements that are applicable to other SEC registered public companies that are not emerging growth companies.

These exemptions include not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (the Sarbanes-Oxley Act"), not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the consolidated financial statements, reduced disclosure obligations regarding executive compensation and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. We elected to take advantage of certain of the reduced disclosure obligations available to emerging growth companies in this Form 10-K and expect to take advantage of other reduced reporting requirements in our future filings. As a result, the information we provide stockholders may be different than the information that is available with respect to other public companies that are not emerging growth companies. To the extent that we continue to qualify as a "smaller reporting company," as such term is defined in Rule 12b-2 under the Exchange Act, after we cease to qualify as an emerging growth company, we will continue to be permitted to make certain reduced disclosures in our periodic reports and other documents that we file with the SEC. We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, our consolidated financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Your percentage ownership in us may be diluted by future issuances of capital stock, which could reduce your influence over matters on which stockholders vote.

Pursuant to our amended and restated certificate of incorporation and amended and restated bylaws, our board of directors has the authority, without action or vote of our stockholders, to issue all or any part of our authorized but unissued shares of common stock, including shares issuable upon the exercise of options, or shares of our authorized but unissued preferred stock. Issuances of shares of common stock or shares of voting preferred stock would reduce your influence over matters on which our stockholders vote and, in the case of issuances of shares of preferred stock, would likely result in your interest in us being subject to the prior rights of holders of that preferred stock.

Our directors, officers and principal stockholders have significant voting power and may take actions that may not be in the best interests of our other stockholders.

As of December 31, 2022, our officers, directors and principal stockholders each holding more than 5% of our common stock collectively owned approximately 70% of our outstanding common stock. As a result, if they act together, may be able to exert significant influence over the management and affairs of our company and most matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This concentration of ownership may have the effect of delaying or preventing a change of control and might adversely affect the market price of our common stock. This concentration of ownership may not be in the best interests of our other stockholders.

We do not expect to pay any dividends for the foreseeable future and our indebtedness could limit our ability to pay dividends on our common stock.

We have never declared or paid any cash dividends on our equity securities. We do not currently anticipate declaring or paying regular cash dividends on our common stock in the near term and you should not rely on an investment in our common stock to provide dividend income. We currently intend to use our future earnings, if any, to pay debt obligations,

to fund our growth and develop our business and for general corporate purposes. Therefore, you are not likely to receive any cash dividends on your common stock in the near term, and the success of an investment in shares of our common stock will depend upon any future appreciation in their value. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which they are initially offered. Any future declaration and payment of cash dividends or other distributions of capital will be at the discretion of our board of directors and the payment of any future cash dividends or other distributions of capital will depend on many factors, including our financial condition, earnings, cash needs, regulatory constraints, capital requirements (including requirements of our subsidiaries) and any other factors that our board of directors deems relevant in making such a determination. The Credit Agreement contains, and any future credit facility that we enter into may contain, terms prohibiting or limiting the amount of dividends that may be declared or paid on our common stock. We cannot assure you that we will establish a dividend policy or pay cash dividends in the future or continue to pay any cash dividend if we do commence paying cash dividends pursuant to a dividend policy or otherwise.

General Risks

We may acquire businesses or form joint ventures or make investments in other companies or technologies that could negatively affect our operating results, could divert our management's attention, dilute our stockholders' ownership, increase our debt or cause us to incur significant expense.

We may pursue acquisitions of businesses and assets. We also may pursue strategic alliances and joint ventures that leverage our technologies and industry experience to expand our offerings or distribution. We have no experience with acquiring other companies and limited experience with forming strategic partnerships. We may not be able to find suitable partners or acquisition candidates, and we may not be able to complete such transactions on favorable terms, if at all. The competition for partners or acquisition candidates may be intense, and the negotiation process will be time-consuming and complex. If we make any acquisitions, we may not be able to integrate these acquisitions successfully into our existing business, these acquisitions may not strengthen our competitive position, the transactions may be viewed negatively by customers or investors, we may be unable to retain key employees of any acquired business, relationships with key suppliers, manufacturers or customers of any acquired business may be impaired due to changes in management and ownership, and we could assume unknown or contingent liabilities. Any future acquisitions also could result in the incurrence of debt, contingent liabilities or future write-offs of intangible assets or goodwill, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects. If we were to issue additional equity in connection with such acquisitions, this may dilute our stockholders. We cannot guarantee that we will be able to fully recover the costs of any acquisition. Integration of an acquired company also may disrupt ongoing operations and require management resources that we would otherwise focus on developing our existing business. We may not realize the anticipated benefits of any acquisition, technology license, strategic alliance or joint venture. We also may experience losses related to investments in other companies, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

To finance any acquisitions or joint ventures, we may choose to issue shares of our common stock as consideration, which would dilute the ownership of our stockholders. Additional funds may not be available on terms that are favorable to us, or at all. If the price of our common stock is low or volatile, we may not be able to acquire companies or fund a joint venture project using our stock as consideration.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our results of operations could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. We base our estimates on historical experience and estimates 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, liabilities, equity, revenue and expenses that are not readily apparent from other sources. For example, in connection with the implementation of the new revenue accounting standard, management makes judgments and assumptions based on our interpretation of the new standard. The new revenue standard is principle-based and interpretation of those principles may vary from company to company based on their unique circumstances. It is possible that interpretation, industry practice and guidance may evolve as we apply the new standard. If our assumptions underlying our estimates and judgements relating to our critical accounting policies change or if actual circumstances differ from our assumptions,

estimates or judgements, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

We have incurred and will continue to incur significant additional costs as a result of being a public company, which may adversely affect our business, financial condition, results of operations and prospects.

As a public company, we have incurred and will continue to incur significant legal, accounting, compliance and other expenses that we did not incur as a private company and these expenses may increase even more after we are no longer an "emerging growth company." Our management and other personnel will need to devote a substantial amount of time and incur significant expense in connection with compliance initiatives. For example, as a public company, we have adopted additional internal controls and disclosure controls and procedures, retained a transfer agent and adopted an insider trading policy. As a public company, we will bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under the securities laws.

In addition, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act, and the related rules and regulations implemented by the SEC and Nasdaq, have increased legal and financial compliance costs and will make some compliance activities more time-consuming. We intend to continue to invest resources to comply with evolving laws, regulations and standards, and this investment will result in increased general and administrative expenses and may divert management's time and attention from our other business activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us, and our business may be harmed. We also expect the laws, rules and regulations we are subject to as a public company to make it more expensive for us to maintain directors' and officers' liability insurance, and we may be required in the future to accept reduced coverage or incur substantially higher costs to maintain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

The market price of our common stock may be volatile, which could result in substantial losses for investors who have purchased shares of our common stock.

Our quarterly results of operations are likely to fluctuate in the future as a publicly traded company. In addition, securities markets worldwide have experienced, and are likely to continue to experience, significant price and volume fluctuations. This market volatility, as well as general economic, market or political conditions, could subject the market price of our shares of common stock to wide price fluctuations regardless of our operating performance, which could cause a decline in the value of your investment. You should also be aware that price volatility may be greater if the public float and trading volume of shares of our common stock is low. Some factors that may cause the market price of our common stock to fluctuate, in addition to the other risks discussed in this Item 1A. of this Form 10-K, include:

- our pending merger with Berkeley Lights;
- our operating and financial performance and prospects;
- our announcements or our competitors' announcements regarding new products or services, enhancements, significant contracts, acquisitions or strategic investments;
- changes in earnings estimates or recommendations by securities analysts who cover our common stock;
- fluctuations in our quarterly financial results or, in the event we provide it from time to time, earnings guidance, or the quarterly financial results or earnings guidance of companies perceived by investors to be similar to us;
- changes in our capital structure, such as future issuances of securities, sales of large blocks of common stock by our stockholders or the incurrence of additional debt;
- departure of key personnel;
- reputational issues;
- changes in general economic and market conditions, including related to the COVID-19 pandemic;
- changes in industry conditions or perceptions or changes in the market outlook for the life sciences technology industry; and

- changes in applicable laws, rules or regulations or regulatory actions affecting us or our clients and other dynamics.

These and other factors may cause the market price for shares of our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of our common stock and may otherwise negatively affect the liquidity of our common stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock sometimes have instituted securities class action litigation against the company that issued the stock. Securities litigation against us, regardless of the merits or outcome, could result in substantial costs and divert the time and attention of our management from the business, which could significantly harm our business, results of operation, financial condition or reputation.

Securities analysts may not publish favorable research or reports about our business or may publish no information at all, which could cause our stock price or trading volume to decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. We do not have control over these analysts. If one or more of the analysts covering our business downgrade their evaluations of our common stock, the price of our common stock could decline. If one or more of these analysts cease to cover our common stock, we could lose visibility in the market for our common stock, which in turn could cause the price of our common stock to decline.

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

In the ordinary course of our business, we collect and store sensitive data, including personally identifiable information, intellectual property and proprietary business information owned or controlled by ourselves or our employees, customers and other parties. We manage and maintain our applications and data utilizing a combination of on-site systems and cloud-based data centers. We utilize external security and infrastructure vendors to manage parts of our data centers. These applications and data encompass a wide variety of business-critical information, including research and development information, commercial information and business and financial information. We face a number of risks relative to protecting this critical information, including loss of access risk, inappropriate use or disclosure, unauthorized access, inappropriate modification and the risk of our being unable to adequately monitor and audit and modify our controls over our critical information. This risk extends to the third party vendors and subcontractors we use to manage this sensitive data or otherwise process it on our behalf. The secure processing, storage, maintenance and transmission of this critical information are vital to our operations and business strategy, and we devote significant resources to protecting such information. Although we take reasonable measures to protect sensitive data from unauthorized access, use or disclosure, no security measures can be perfect and our information technology and infrastructure may be vulnerable to attacks by hackers or viruses or breached due to employee error, malfeasance or other malicious or inadvertent disruptions. Any such breach or interruption could compromise our networks and the information stored there could be accessed by unauthorized parties, publicly disclosed, lost or stolen. Any such access, breach, or other loss of information could result in legal claims or proceedings, and liability under federal or state laws that protect the privacy of personal information, and regulatory penalties. Notice of breaches may be required to affected individuals or state, federal or foreign regulators, and for extensive breaches, notice may need to be made to the media or State Attorneys General. Such a notice could harm our reputation and our ability to compete.

We are currently subject to, and may in the future become subject to additional, U.S. federal and state laws and regulations imposing obligations on how we collect, store and process personal information. Our actual or perceived failure to comply with such obligations could harm our business. Ensuring compliance with such laws could also impair our efforts to maintain and expand our future customer base, and thereby decrease our revenue.

We are, and may increasingly become, subject to various laws and regulations, as well as contractual obligations, relating to data privacy and security in the jurisdictions in which we operate. The regulatory environment related to data privacy and security is increasingly rigorous, with new and constantly changing requirements applicable to our business, and enforcement practices are likely to remain uncertain for the foreseeable future. These laws and regulations may be interpreted and applied differently over time and from jurisdiction to jurisdiction, and it is possible that they will be interpreted and applied in ways that may have a material adverse effect on our business, financial condition, results of operations and prospects.

In the United States, various federal and state regulators, including governmental agencies like the Consumer Financial Protection Bureau and the Federal Trade Commission, have adopted, or are considering adopting, laws and regulations

concerning personal information and data security. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, international or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. For example, the California Consumer Privacy Act ("CCPA"), which increases privacy rights for California residents and imposes obligations on companies that process their personal information, came into effect on January 1, 2020. Among other things, the CCPA requires covered companies to provide new disclosures to California consumers and provide such consumers new data protection and privacy rights, including the ability to opt-out of certain sales of personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches that result in the loss of personal information. This private right of action may increase the likelihood of, and risks associated with, data breach litigation. In November 2020, California voters passed the California Privacy Rights Act ("CPRA"), which became effective in most material respects beginning on January 1, 2023. The CPRA further expands the CCPA with additional data privacy compliance requirements and obligations and establishes a regulatory agency dedicated to enforcing the CCPA and CPRA. In addition, laws in all 50 U.S. states require businesses to provide notice to consumers whose personal information has been disclosed as a result of a data breach. State laws are changing rapidly and there is discussion in the U.S. Congress of a new comprehensive federal data privacy law to which we would become subject if it is enacted.

Internationally, laws, regulations and standards in many jurisdictions apply broadly to the collection, use, retention, security, disclosure, transfer and other processing of personal information. For example, the E.U. General Data Protection Regulation ("GDPR"), which became effective in May 2018, greatly increased the European Commission's jurisdictional reach of its data privacy and security laws and added a broad array of requirements for handling personal data. EU member states are tasked under the GDPR to enact, and have enacted, certain implementing legislation that adds to and/or further interprets the GDPR requirements and potentially extends our obligations and potential liability for failing to meet such obligations. The GDPR, together with national legislation, regulations and guidelines of the EU member states governing the processing of personal data, impose strict obligations and restrictions on the ability to collect, use, retain, protect, disclose, transfer and otherwise process personal data. In particular, the GDPR includes requirements to establish a legal basis for processing, higher standards for obtaining consent from individuals to process their personal data, more robust disclosures to individuals, a strengthened individual data rights regime, requirements to implement safeguards to protect the security and confidentiality of personal data, data breach notification obligations to appropriate data protection authorities or individuals, limitations on retention and secondary use of information and additional obligations when entities contract with third-party processors to process personal data. The GDPR authorizes fines for certain violations of up to 4% of global annual revenue or €20 million, whichever is greater. Following the withdrawal of the United Kingdom from the European Union, data privacy and security laws that are substantially similar to the GDPR are in effect in the United Kingdom, which carry similar risks and authorize similar fines for certain violations.

All of these evolving compliance and operational requirements impose significant costs, such as costs related to organizational changes, implementing additional protection technologies, training employees and engaging consultants, which are likely to increase over time. In addition, such requirements may require us to modify our data processing practices and policies, distract management or divert resources from other initiatives and projects, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Any failure or perceived failure by us to comply with any applicable federal, state or similar foreign laws and regulations relating to data privacy and security could result in damage to our reputation, as well as proceedings or litigation by governmental agencies or other third parties, including class action privacy litigation in certain jurisdictions, which would subject us to significant fines, sanctions, awards, penalties or judgments, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our global headquarters is located in Branford, Connecticut. We utilize the following facilities:

Location	Purpose or Use	Square Feet	Status
Branford, Connecticut	Corporate headquarters, engineering, research and development	24,932	Leased, expires December 31, 2026
Branford, Connecticut	Manufacturing	32,973	Leased, expires June 30, 2026
Branford, Connecticut	Manufacturing, research and development	20,118	Leased, expires June 30, 2026
Branford, Connecticut	Research and development	14,674	Leased, expires July 31, 2025
Branford, Connecticut	Engineering, research and development	9,600	Leased, expires December 31, 2026

In addition to the facilities listed above, we lease space in various international locations, primarily for use as sales offices.

Upon expiration of our facilities leases, we believe we will obtain lease agreements under similar terms; however, there can be no assurance that we will receive similar terms or that any offer to renew will be accepted.

We believe that our current facilities are sufficient to meet our ongoing needs and that, if we require additional space, we will be able to obtain additional facilities on commercially reasonable terms.

Item 3. Legal Proceedings

From time to time we are a party to various litigation matters incidental to the conduct of our business. Other than as disclosed below, we are not presently party to any legal proceedings the resolution of which we believe would have a material adverse effect on our business, prospects, financial condition, liquidity, results of operation, cash flows or capital levels.

In connection with our pending merger with Berkeley Lights, five individual complaints have been filed by purported stockholders of the Company in federal courts, alleging that the proxy statement disseminated in connection with the proposed Merger contains material misrepresentations or omissions in violation of the federal securities laws. Certain demand letters have also been sent to the Company by purported stockholders making similar allegations.

On February 2, 2023, a purported IsoPlexis stockholder filed a complaint in the United States District Court for the Southern District of New York, captioned *Dunbar v. IsoPlexis Corporation, et al.*, No. 1:23-cv-00899, naming IsoPlexis and the members of the IsoPlexis board of directors as defendants and alleging, among other things, that the registration statement on Form S-4 filed by Berkeley Lights relating to the Merger omits material information concerning the transactions contemplated by the Merger Agreement in violation of Sections 14(a) and 20(a) of the Exchange Act and Rule 14a-9 promulgated thereunder. Three other substantially similar purported stockholder complaints have subsequently been filed in the United States District Court for the Southern District of New York, and another substantially similar complaint has been filed in the United States District Court for the District of Delaware. Each of the five stockholder complaints seeks, among other things, to enjoin the Merger or, in the alternative, rescission of the Merger or rescissory damages, and an award of attorneys' fees and expenses.

It is possible that additional lawsuits asserting similar claims could be filed. We believe the allegations in the stockholder complaints are without merit, and are vigorously defending against them.

Item 4. Mine Safety Disclosures

Not applicable.

Part II

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

Market Information and Holders

Our common stock has been listed on the Nasdaq Global Select Market under the symbol "ISO" since October 8, 2021. Prior to that date, there was no public trading market for our common stock.

As of February 27, 2023, there were 64 stockholders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Dividend Policy

We have never paid cash dividends on our common stock, nor do we currently intend to pay any cash dividends on our common stock in the foreseeable future. We intend to retain our earnings, if any, for the future operation and expansion of our business.

Sales of Unregistered Securities

None.

Securities Authorized for Issuance Under Equity Compensation Plans

See "Item 12. Security Ownership of Certain Beneficial Owner and Management and Related Stockholder Matters for a table displaying Equity Compensation Plan Information.

Item 6. [Removed and Reserved]

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

The following discussion should be read in conjunction with our consolidated financial statements and related notes thereto that appear elsewhere in this Form 10-K. Some of the information contained in this discussion and analysis or set forth elsewhere in this Form 10-K, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the sections titled "Cautionary Note Regarding Forward-Looking Statements" and "Risk Factors" included in this Form 10-K, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis.

Overview

IsoPlexis Corporation is a company empowering labs to leverage the cells and proteome changing the course of human health. Our systems identify a comprehensive range of multifunctional single cells, i.e. the superhero cells in the human body. These cells enable researchers to understand and predict disease progression, treatment resistance and therapeutic efficacy to advance all of human health. We are a life sciences company building solutions to accelerate the development of curative medicines and personalized therapeutics. Our award-winning single-cell proteomics systems reveal unique biological activity in small subsets of cells, allowing researchers to connect more directly to *in vivo* biology and develop more precise and personalized therapies.

We are enabling deeper access to *in vivo* biology and driving durable and potentially transformational research on disease in a new era of advanced medicine. We believe our platform is the first to employ both proteomics and single-cell biology in an effort to fully characterize and link cellular function to patient outcomes by revealing treatment response and disease progression. Our single-cell proteomics platform, which includes instruments, chip consumables and software, provides an end-to-end solution to reveal a more complete view of protein function at an individual cellular level. Since our commercial launch in June 2018, our platform has been adopted by the top 15 global biopharmaceutical companies by revenue and approximately three-fourths of the comprehensive cancer centers in the United States to help develop more durable therapeutics, overcome therapeutic resistance, and predict patient responses for advanced immunotherapies, cell therapies, gene therapies, vaccines, and regenerative medicines. Our initial focus has been on developing applications of our platform for cancer immunology and cell and gene therapy. We are now expanding our capabilities to include applications for infectious diseases, inflammatory conditions, and neurological diseases.

We currently market and sell our technology with an in-house commercial team in the United States, China and Europe. We are also utilizing our distribution network to market and sell across multiple countries, including Australia, Belgium, Canada, China, Czech Republic, France, Germany, Italy, Israel, Japan, Portugal, Singapore, South Korea, Spain, Switzerland, and the United Kingdom. We intend to further expand our international presence by growing our distribution networks in Brazil, India, Mexico and beyond.

We manufacture our instruments and chip consumables in our manufacturing facilities in Branford, Connecticut and do not outsource any of our production manufacturing to third party contract manufacturers. Certain of our suppliers of

components and materials are single source suppliers and we do not have supply agreements with certain suppliers of these components and materials beyond purchase orders. As part of our overall risk management strategy, we continue to evaluate and identify alternative suppliers for each of our components and materials.

Since our inception in March 2013, we have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, conducting research and development activities, and filing patent applications. Prior to the completion of our IPO, we financed our operations primarily through the private placement of our securities, the incurrence of indebtedness and, to a lesser extent, grant income and revenue derived from sales of our instruments and chip consumables. As of December 31, 2022, our principal source of liquidity was cash, which totaled $37.5 million.

We completed our first sale of our systems in June 2018. Revenue decreased to $16.8 million for the year ended December 31, 2022 as compared to $17.3 million for the year ended December 31, 2021. We have incurred recurring losses since inception. For the year ended December 31, 2022, our net losses were $106.0 million as compared to $81.6 million for the year ended December 31, 2021. As of December 31, 2022, we had an accumulated deficit of $240.0 million.

On December 21, 2022, IsoPlexis entered into the Merger Agreement with Berkeley Lights and Merger Sub. Pursuant to the Merger Agreement and subject to the satisfaction or waiver of the conditions set forth therein, Merger Sub will be merged with and into IsoPlexis, with IsoPlexis continuing as the surviving corporation and a wholly-owned subsidiary of Berkeley Lights. Pursuant to the Merger Agreement, at the effective time of the Merger (the "Effective Time"), each share of common stock, par value $0.001, of IsoPlexis ("IsoPlexis Common Stock") issued and outstanding immediately prior to the Effective Time (other than shares of IsoPlexis Common Stock owned (i) by IsoPlexis as treasury stock, (ii) by Berkeley Lights or Merger Sub (unless owned by Berkeley Lights or Merger Sub in a fiduciary, representative or other capacity on behalf of other persons) or (iii) by any wholly owned subsidiary of IsoPlexis or Berkeley Lights (other than Merger Sub and unless held in a fiduciary, representative or other capacity on behalf of other persons)) will be converted into the right to receive 0.6120 fully paid and nonassessable shares (the "Exchange Ratio") of common stock, par value $0.00005, of Berkeley Lights ("Berkeley Lights Common Stock") (the "Merger Consideration"), together with cash in lieu of fractional shares of Berkeley Lights Common Stock, if any, and any unpaid dividends or other distributions. The consummation of the Merger is subject to customary closing conditions, including, among others, (i) the adoption of the Merger Agreement by IsoPlexis' stockholders and the approval by Berkeley Lights' stockholders of the issuance of Berkeley Lights Common Stock to IsoPlexis stockholders in connection with the Merger (the "Share Issuance"), (ii) termination or expiration of any waiting period applicable to the Merger under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, (iii) effectiveness of Berkeley Lights' registration statement on Form S-4 to be filed with the Securities and Exchange Commission (the "SEC") pursuant to the Merger Agreement, (iv) approval of the listing on Nasdaq of the shares of Berkeley Lights Common Stock issuable as Merger Consideration, subject to official notice of issuance and (v) the absence of a judgment or law that prevents, makes illegal, enjoins or prohibits the consummation of the Merger. The Merger Agreement generally requires IsoPlexis to operate its business in the ordinary course pending consummation of the proposed Merger and restricts IsoPlexis, without Berkeley Lights' consent from taking certain specified actions until the Merger is completed.

We expect to continue to incur significant expenses and operating losses for the foreseeable future in connection with ongoing development and business expansion activities, particularly as we continue to:

- expand our research and development activities;
- obtain, maintain and expand and protect our intellectual property portfolio;
- market and sell new and existing products and services; and
- attract, hire and maintain qualified personnel to support our expanding business efforts.

Furthermore, we will incur additional costs associated with operating as a public company, including significant legal, accounting, compliance, investor relations and other expenses that we did not incur as a private company.

As a result of these anticipated expenditures, we will need substantial additional financing to support our continuing operations and pursue our growth strategy. Until such time as we can generate positive cash flows from operations, if ever, we expect to finance our operations through a combination of equity offerings, debt financings, and sales of products and services to our customers. We may be unable to raise additional funds when needed on favorable terms or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We will need to generate significant revenue to achieve profitability, and we may never do so.

Key Factors Affecting Our Performance

We believe that our financial performance has been, and in the foreseeable future will continue to be, primarily driven by the following factors. While each of these factors presents significant opportunities for our business, they also pose important challenges that we must successfully address in order to pursue our growth strategy and improve our results of operations. Our ability to successfully address the factors below is subject to various risks and uncertainties, including those factors set forth in the section titled "Risk Factors" included elsewhere in this Form 10-K.

New Customer Adoption of Our Platform

Our financial performance has been, and in the foreseeable future will continue to be, driven by our ability to increase the adoption of our platform and the installed base of our instruments. We plan to drive new customer adoption through a direct sales and marketing organization in the United States, China and parts of Europe and third party distributors in Europe, North America, the Middle East and Asia-Pacific.

Recurring Revenues from Sales of our Chip Consumables

Our IsoCode chip consumables represent a source of recurring revenue from customers using our platform across a wide range of applications. Our instruments and consumables are designed to work together exclusively. As we expand our installed base of instruments, we expect consumable revenues to increase on an absolute basis and become an increasingly important contributor to our overall revenues.

Adoption of Our Platform Across Existing Customers' Organizations

There is an opportunity to grow our installed base and expand the number of instruments within organizations that are already utilizing our platform to advance their research and therapeutic development by their purchasing of additional instruments to support multiple locations or to increase capacity.

Adoption of Our Platform for New Applications

We founded our company to help solve critical challenges to accelerating advanced medicines and since our inception, we have developed multiple applications spanning cancer immunology, cell and gene therapy, infectious diseases, inflammatory conditions, and neurological diseases. As we continue to deploy our platform, we intend to concurrently expand the breadth of applications for our technologies to encourage increased use of our platform across our addressable markets. We expect our investments in these efforts to increase as we develop and market new applications, including a diagnostic application.

Components of Our Results of Operations

Revenue

Revenue consists of sales of instruments and consumables in addition to service revenue. Our total revenue for the year ended December 31, 2022 was $16.8 million compared to $17.3 million for the year ended December 31, 2021. We expect that our revenue will be less than our expenses for the foreseeable future and that we will experience losses as we continue to expand our business.

Cost of Product and Service Revenue

The Company's cost of product revenue primarily consists of manufacturing related costs incurred in the production process, including personnel and related costs, costs of components and materials, labor and overhead, packaging and delivery costs and allocated costs for facilities and information technology. Cost of service revenue consists primarily of personnel and related costs of service and warranty costs to support our customers.

Company re-organization and reduction in force

On April 11, 2022, the Company completed a re-organization of the commercial team and company-wide reduction in force ("RIF") which reduced total head count company-wide from approximately 500 as of March 31, 2022 to approximately 380 as of June 30, 2022. This action resulted in one-time non-recurring restructuring expenses of $4.3 million which were primarily associated with severance, benefits, and outplacement services during the second and third quarters of 2022.

While the RIF was executed on April 11, 2022, we have continued to pursue further efficiencies and expect to achieve even lower operating expenses across multiple areas of our business, including but not limited to further savings in salaries and salary-related expenses, consultants and other professional services, internal material usage and licenses fees, in the fourth quarter of 2022 as seek to implement an accelerated path towards profitability. While we expect operating expenses to be lower in the short-term, over the longer-term operating expenses will go up as revenue increases, to support a larger installed instrument base and higher consumables sales.

Research and Development Expenses

Research and development expenses include:

- costs to obtain licenses to intellectual property and related future payments should certain success, development and regulatory milestones be achieved;
- employee-related expenses, including salaries, benefits and stock-based compensation expense;
- costs of purchasing lab supplies and non-capital equipment used in our research and development activities;
- consulting and professional fees related to research and development activities; and
- facility costs, depreciation, and other expenses, which include direct and allocated expenses for rent and maintenance of facilities, insurance, and other supplies.

We expense research and development costs as incurred. Research and development activities are central to our business model.

Because of the numerous risks and uncertainties associated with product development, we cannot determine with certainty the duration and completion costs of our current or future research and development efforts.

General and Administrative Expenses

General and administrative expenses consist primarily of employee-related expenses, including salaries, benefits and stock-based compensation, for personnel in executive, finance, business development, facility and administrative functions. Other significant costs include facility costs not otherwise included in research and development expenses, legal fees relating to patent and corporate matters and fees for accounting, tax and consulting services.

We anticipate that our general and administrative expenses will increase in the long term to support continued expansion of our commercial, development and operating activities. These increases will likely include increased costs related to the hiring of additional personnel and fees to outside consultants, lawyers and accountants, among other expenses.

Sales and Marketing Expenses

Sales and marketing expenses consist primarily of compensation related expenses, including salaries, bonuses, benefits, non-cash stock-based compensation for sales and marketing personnel, advertising and promotion expenses, consulting and subcontractor fees, sales commissions, recruiting fees, and various other selling expenses. We anticipate that our sales and marketing expenses will increase in the long term as we pursue growth and as we identify and expand into new markets, increase our product offerings, and expand our installed instrument base.

Grant Income

We are engaged in various Small Business Innovation Research (“SBIR”) grants with the federal government to help fund the costs of certain research and development activities. We believe that we have complied with all contractual requirements of the SBIR grants through the date of the financial statements. We do not currently expect future grant income to be a material source of funding for the Company.

Research and Development State Tax Credits

Research and development (“R&D”) tax credits exchanged for cash pursuant to the Connecticut R&D Tax Credit Exchange Program, which permits qualified small businesses engaged in R&D activities within Connecticut to exchange their unused R&D tax credits for a cash amount equal to 65% of the value of exchanged credits, are recorded as a receivable and other income in the year the R&D tax credits relate to, as it is reasonably assured that the R&D tax credits

will be received, based upon our history of filing for and receiving the tax credits. R&D tax credits receivable where cash is expected to be received by us more than one year after the balance sheet date are classified as noncurrent in the consolidated balance sheets.

Fair Value Adjustment for Warrants and Loan Commitments

Warrants and loan commitments are freestanding financial instruments that qualify as liabilities or equity and assets, respectively, required to be recorded at their estimated fair value at the inception date and remeasured at each reported balance sheet date thereafter until settlement, with gains and losses arising from changes in fair value recognized in the statement of operations during each period. Our outstanding preferred share warrants were converted to common share warrants upon our IPO and were reclassified from liabilities to equity for the year ended December 31, 2021.

Results of Operations

Comparisons of the Years Ended December 31, 2022 and 2021

The following table summarizes our results of operations for the years ended December 31, 2022 and 2021, together with the dollar change in those items:

(in thousands)	Year Ended December 31, 2022	Year Ended December 31, 2021	Period to period change
Revenue:			
Product revenue	$ 13,852	$ 16,201	$ (2,349)
Service revenue	2,909	1,057	1,852
Total revenue	16,761	17,258	(497)
Cost of product revenue	17,453	8,445	9,008
Cost of service revenue	233	47	186
Gross profit (loss)	(925)	8,766	(9,691)
Operating expenses:			
Research and development expenses	23,504	20,966	2,538
General and administrative expenses	42,680	26,349	16,331
Sales and marketing expenses	29,876	37,774	(7,898)
Restructuring expenses	4,245	—	4,245
Total operating expenses	100,305	85,089	15,216
Loss from operations	(101,230)	(76,323)	(24,907)
Other income (expense):			—
Interest (expense), net	(5,342)	(3,618)	(1,724)
Other (expense) income, net	575	(1,628)	2,203
Net loss	$ (105,997)	$ (81,569)	$ (24,428)

Revenue

Total revenue decreased $0.5 million for the year ended December 31, 2022 compared to December 31, 2021. This consisted of a decrease of $3.2 million for instruments and an increase of $1.3 million in collaboration, $0.8 million for consumables, and $0.6 million for other revenue.

The decrease in instruments revenue for the year ended December 31, 2022 was due primarily to macro-economic factors affecting sales in EMEA and APAC and slowing the pace of instrument sales in North America. The increase in consumable revenue in 2022 was driven by an increase in the number of units at customer locations.

Gross Profit

Gross profit as a percentage of total revenues was (5.5)% for the year ended December 31, 2022 compared to 50.8% for the year ended December 31, 2021. The gross profit percentage decrease was due to an increase in inventory reserve of $9.1 million attributable to excess inventory at the end of 2022.

Operating Expenses

Operating expenses increased by $15.2 million for the year ended December 31, 2022 compared to December 31, 2021. This included $6.5 million in deal-related expenses associated with the agreement of Berkeley Lights to acquire IsoPlexis, signed on December 21, 2022 and $4.2 million of one-time restructuring charges associated with the re-organization of the sales and marketing teams, manufacturing operations and research and development. These costs consisted of severance, benefits, and outplacement services provided as part of the Company's reduction in force.

Research and Development Expenses

(in thousands)	Year Ended December 31, 2022	Year Ended December 31, 2021	Period to period change
Compensation related expenses	$ 13,159	$ 9,863	$ 3,296
Professional fees and sub-contractor	381	1,647	(1,266)
Prototyping	2,478	2,538	(60)
Recruiting	115	676	(561)
Lab materials	1,184	1,794	(610)
Supplies expense	1,907	3,113	(1,206)
Depreciation and amortization	2,308	291	2,017
Other	1,972	1,044	928
Total	$ 23,504	$ 20,966	$ 2,538

Research and development expenses increased by $2.5 million, or 12.1%, for the year ended December 31, 2022 compared to the year ended December 31, 2021, primarily due to increases in compensation related expenses of $3.3 million which represents the carryover of new hires at the end of 2021, a $2.0 million increase in depreciation and amortization related to Qiagen patent expenses related to the purchase of patents from QIAGEN Sciences, LLC and QIAGEN GmbH, a $1.3 million decrease in professional fees, a $1.2 million decrease in supplies expense, and a $0.3 million decrease in all other expenses, including recruiting, prototyping and lab materials.

General and Administrative Expenses

General and administrative expenses increased by $16.3 million, or 62.0%, for the year ended December 31, 2022 compared to the year ended December 31, 2021, primarily due to increases in compensation related expenses of $6.4 million, including increased salary, bonus, benefits, and non-cash stock-based compensation, for additional personnel, including several executives, to support increased activities, $6.5 million in deal related costs for the pending Berkeley Lights acquisition of IsoPlexis, an increase of $1.4 million in computer expense, an increase of $1.3 million in depreciation and amortization, a decrease of $0.8 million in recruiting expenses, an increase of $0.5 million in lab materials and an increase of $1.0 million in various other expenses.

Sales and Marketing Expenses

Sales and marketing expenses decreased by $7.9 million, or 20.9%, for the year ended December 31, 2022 compared to the year ended December 31, 2021, primarily due to decreases in compensation related expenses of $3.7 million, including salary, bonus, benefits and non-cash stock-based compensation, a decrease of $1.9 million in consulting and professional fees, and a decrease of $2.3 million in recruiting expenses. Overall, the decrease was driven by streamlining sales support functions and less reliance on consultants and outside services.

Interest expense

As a result of the Credit Agreement we entered into on December 30, 2020, we had $50.0 million of borrowings outstanding as of December 31, 2022, and we recognized $5.3 million in interest expense for the year ended December 31, 2022 compared to $3.6 million for the year ended December 31, 2021.

Liquidity and Capital Resources

At December 31, 2022, we had $37.5 million in cash. Cash as of December 31, 2022 decreased by $89.1 million compared to December 31, 2021, primarily due to the factors described under the heading "—Cash Flows" below. Our

primary source of liquidity, other than cash on hand, has been cash flows from issuances of common stock in our IPO, issuances of preferred stock, debt financings and the sale of products and services to our customers.

Cash Flows

Comparisons of the Years Ended December 31, 2022 and 2021

The following table provides information regarding our cash flows for the year ended December 31, 2022 and 2021:

	Year Ended December 31,	
(in thousands)	**2022**	**2021**
Net cash provided by (used in):		
Operating activities	$ (96,642)	$ (86,507)
Investing activities	(7,815)	(24,223)
Financing activities	15,330	130,655
Effect of exchange rate changes on cash and cash equivalents	26	—
Net (decrease) increase in cash	$ (89,101)	$ 19,925

Operating Activities

Net cash used in operating activities in the year ended December 31, 2022 primarily consisted of net loss of $106.0 million, plus net changes in operating assets and liabilities of $11.1 million, but offset by net non-cash adjustments of $20.5 million. The primary non-cash adjustments to net income were: the change in the provision for excess and obsolete inventory of $9.1 million, the change in stock-based compensation of $4.4 million, and the change in depreciation and amortization of $3.5 million. Cash flow impact from changes in net operating assets and liabilities were primarily driven by increases in inventory and Right of Use ("ROU") assets, partially offset by increases in ROU liabilities.

Net cash used in operating activities in the year ended December 31, 2021 primarily consisted of net loss of $81.6 million, partially offset by net non-cash adjustments of $1.6 million, plus net changes in operating assets and liabilities of $0.7 million. The primary non-cash adjustments to net income included share-based compensation of $0.5 million, depreciation and amortization expenses of $0.9 million, change in fair value of warrants of $0.1 million, and provision for warranty costs of $0.1 million. Cash flow impact from changes in net operating assets and liabilities were primarily driven by an increase in inventories and prepaid expenses and other current assets and partially offset by increases in accounts payable and accrued liabilities.

Investing Activities

Net cash used in investing activities totaled $7.8 million in the year ended December 31, 2022. We purchased $7.4 million of property and equipment. We paid $0.5 million related to purchases of patents from third-parties.

Net cash used in investing activities totaled $24.2 million in the year ended December 31, 2021. We purchased $3.8 million of property and equipment. We paid $20.4 million related to purchases of patents from third-parties.

Financing Activities

Net cash provided by financing activities was $15.3 million in the year ended December 31, 2022. We borrowed the remaining $15.0 million under our Credit Agreement.

Net cash provided by financing activities was $130.7 million in the year ended December 31, 2021. We raised cash through our IPO with net proceeds of $110.5 million. We also borrowed the Tranche B term loan under our Credit Agreement, with net proceeds of $10.0 million.

Funding Requirements

We expect to continue to generate operating losses in connection with our ongoing activities, particularly as we continue our research and development efforts and expand our business efforts. Furthermore, we have incurred and will continue to incur additional costs as a result of being a public company. Accordingly, we will need to obtain additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms,

we would be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

At the time of issuance of our audited consolidated financial statements for the year ended December 31, 2022, we concluded that there was substantial doubt about our ability to continue as a going concern for one year from the issuance of such audited consolidated financial statements.

We have based our projections of operating capital requirements on assumptions that may prove to be incorrect, and we may use all of our available capital resources sooner than we expect. Because of the numerous risks and uncertainties associated with our research and development efforts, we are unable to estimate the exact amount of our operating capital requirements. Our future capital requirements will depend on many factors, including:

- future research and development efforts;
- the need to service and refinance our indebtedness;
- our ability to enter into and terms and timing of any collaborations, licensing agreements or other arrangements;
- the costs of sales, marketing, distribution and manufacturing efforts;
- our headcount growth and associated costs as we expand our business;
- the costs of preparing, filing and prosecuting patent applications, maintaining and protecting our intellectual property rights and defending against intellectual property related claims; and
- the costs of operating as a public company

Until such time, if ever, as we can generate positive cash flows from operations, we expect to finance our additional cash needs through a combination of equity offerings, debt financings, and sales of products and services to our customers. To the extent that we raise additional capital through the sale of equity or convertible debt securities, existing stockholder ownership interest will be diluted, and the terms of those securities may include liquidation or other preferences that adversely affect the rights of holders of common stock. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise funds through additional strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or future revenue streams or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity offerings, debt financings or grants when needed, we may be required to delay, limit, or reduce our expansion efforts.

Contractual Obligations and Commitments

Contractual obligations represent future cash commitments and liabilities under agreements with third parties and exclude orders for goods and services entered into in the normal course of business that are not enforceable or legally binding. The Company has agreements outstanding that have been entered into during the normal course of business that may become a purchase commitment or other commitment in the future.

On December 30, 2020, we entered into the Credit Agreement, which provides for senior secured financing of up to $50.0 million. At December 31, 2022, the entire $50.0 million balance was outstanding.

On December 28, 2022, the Company entered into a Fourth Amendment to Credit Agreement and Guaranty, pursuant to which the interest rate on borrowings was replaced from one-month LIBOR to forward-looking SOFR term rate (“Term SOFR”) as administered by CME Group Benchmark Administration Limited, plus the applicable margin. The interest rate floor and applicable margin remain 1.75% and 9.50%, respectively, under the Fourth Amendment. The interest rate was 13.63% at December 31, 2022. Monthly payments of interest only are due over the term of the Credit Agreement with no scheduled loan amortization. Unless accelerated prior to such date, all amounts outstanding under the Credit Agreement are due to be repaid on December 30, 2025. In addition, the Credit Agreement includes a quarterly minimum total revenue covenant for the applicable trailing twelve month period. In November 2022 and February 2023, we obtained from the lenders a waiver of the quarterly minimum total revenue covenant for the twelve months ended September 30, 2022 and December 31, 2022, respectively, and a waiver of any event of default resulting from non-compliance with the quarterly minimum total revenue covenant for such test period. In March 2023, we also obtained from the lenders a waiver pertaining to the existence of a “going concern” qualification in the accompanying opinion of our auditors in this Annual Report on Form 10-K and any resulting event of default.

The following table summarizes our commitments to settle contractual obligations as of December 31, 2022:

(in thousands)	Total	Less than 1 year	1-3 Years	4-5 Years	More than 5 Years
Lease commitments [1]	$ 5,769	$ 1,811	$ 3,182	$ 776	$ —
Total	$ 5,769	$ 1,811	$ 3,182	$ 776	$ —

[1] Represents commitments under our non-cancelable leases.

Critical Accounting Policies and Significant Judgments and Estimates

The preparation of financial statements in accordance with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. Management bases its estimates on historical experience, market and other conditions, and various other assumptions it believes to be reasonable. Although these estimates are based on management's best knowledge of current events and actions that may impact us in the future, the estimation process is, by its nature, uncertain given that estimates depend on events over which we may not have control. Though the impact of the COVID-19 pandemic to our business and operating results presents additional uncertainty, we continue to use the best information available to inform our critical accounting estimates. If market and other conditions change from those that we anticipate, our consolidated financial statements may be materially affected. In addition, if our assumptions change, we may need to revise our estimates, or take other corrective actions, either of which may also have a material effect on our consolidated financial statements. In addition to the accounting policies discussed below, see "Item 8. Financial Statements and Supplementary Data — Notes to Consolidated Financial Statements — Note 2" for other significant accounting policies.

Revenue Recognition

Our revenue is generated primarily from the sale of products and services. Product revenue primarily consists of sales of instruments and chip consumables. Service revenue primarily consists of revenue generated from measuring immune responses using the Company's technology.

The Company recognizes revenue when control of products and services is transferred to customers in an amount that reflects the consideration the Company expects to receive from the customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract prices to distinct performance obligations in the contract, and recognizing revenue when the performance obligations have been satisfied. Revenue recognition for contracts with multiple deliverables is based on the separate satisfaction of each distinct performance obligation within the contract. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. The Company considers a performance obligation satisfied once the Company has transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. The contract price is allocated to each performance obligation in proportion to its standalone selling price. If the product or service has no history of sales or if the sales volume is not sufficient, the Company relies upon prices set by management, adjusted for applicable discounts.

The Company records revenue from product sales when performance obligations under the terms of a contract with customers are satisfied. Generally, this occurs with the transfer of control of the goods to customers at the time of shipment. The Company also generates service revenues by measuring immune responses using the Company's technology. The Company recognizes service revenue when performance obligations under the terms of a contract with customers are satisfied, which is generally at the time the analysis data is made available to the customer or agreed-upon milestones are reached. The Company makes judgments as to its ability to collect outstanding receivables and provides allowances when collection becomes doubtful.

Revenue is recorded net of discounts and sales taxes collected on behalf of governmental authorities. Employee sales commissions are recorded as sales and marketing expenses when incurred as the amortization period for such costs, if capitalized, would have been one year or less.

Inventory Valuation

Inventories are valued at the lower of cost, determined on a first-in, first-out basis, or market. The primary components of cost included in inventories are raw material, labor and overhead. Provisions are made to reduce excess or obsolete

inventories to their estimated net realizable value. The process for evaluating the value of excess and obsolete inventory often requires the Company to make subjective judgments and estimates concerning future sales levels, quantities and prices at which such inventory will be sold in the normal course of business and estimated costs. Estimates of excess and obsolete inventory may differ from actual results due to changes in market value, channels of distribution, customer preferences and overall economic and market conditions. Accelerating the disposal process or changes in estimates based on future sales potential or estimated costs may necessitate future adjustments to these provisions.

Share-Based Compensation

Our determination of the fair value of stock options with time-based vesting on the date of grant utilizes the Black-Scholes option pricing model, and is impacted by our common stock price as well as other variables including, but not limited to, expected term that options will remain outstanding, expected common stock price volatility over the term of the option awards, risk-free interest rates and expected dividends.

The fair value of a stock-based award is recognized over the period during which an optionee is required to provide services in exchange for the option award, known as the requisite service period (usually the vesting period) on a straight-line basis. Stock-based compensation expense is recognized based on the fair value determined on the date of grant and is reduced for forfeitures as they occur. Estimating the fair value of equity-settled awards as of the grant date using valuation models, such as the Black-Scholes option pricing model, is affected by assumptions regarding a number of complex variables. Changes in the assumptions can materially affect the fair value and ultimately how much stock-based compensation expense is recognized. These inputs are subjective and generally require significant analysis and judgment to develop.

As there had been no public market for our common stock prior to our IPO, the estimated fair value of our common stock had been determined by our board of directors as of the date of each option grant, with input from management, considering our most recently available third-party valuations of common stock, and our board of directors' assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These third-party valuations were performed in accordance with the guidance outlined in the *American Institute of Certified Public Accountants' Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. Our common stock valuations were prepared using one or more of the following methods: the option pricing method ("OPM"), the probability-weighted expected return method ("PWERM") or the hybrid method, which combines both the OPM and the PWERM. The OPM uses market approaches to estimate our enterprise value and treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceed the value of the preferred stock liquidation preferences at the time of a liquidity event, such as a strategic sale or a merger. A discount for lack of marketability of the common stock is then applied to arrive at an indication of value for the common stock. The PWERM is a scenario-based analysis that estimates the value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes considered by us, as well as the economic and control rights of each share class.

In addition to considering the results of these third-party valuations, our board of directors considered both objective and subjective factors, including:

- the prices at which we sold our redeemable convertible preferred stock and the superior rights and preferences of the redeemable convertible preferred stock relative to our common stock at the time of each grant;
- the progress of our research and development;
- our stage of development and our business strategy;
- external market conditions affecting the biotechnology industry, and trends within the biotechnology industry;
- our financial position, including cash on hand, and our historical and forecasted performance and operating results;
- the lack of an active public market for our common stock and our redeemable convertible preferred stock; and
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company in light of prevailing market conditions.

Expected Term—We have opted to use the "simplified method" for estimating the expected term of options, whereby the expected term equals the arithmetic average of the vesting term and the original contractual term of the option (10 years).

Expected Volatility—Due to our limited operating history and a lack of company specific historical and implied volatility data, we have based our estimate of expected volatility on the historical volatility of a group of similar companies that are publicly traded. The historical volatility data was computed using the daily closing prices for the selected companies' shares during the equivalent period of the calculated expected term of the stock-based awards.

Risk-Free Interest Rate—The risk-free rate assumption is based on the U.S. Treasury instruments with maturities similar to the expected term of our stock options.

Expected Dividend—We have not issued any dividends in our history and do not expect to issue dividends over the life of the options and therefore have estimated the dividend yield to be zero.

The assumptions underlying these valuations represented management's best estimate, which involved inherent uncertainties and the application of management's judgment. As a result, if we had used significantly different assumptions or estimates, the fair value of our common stock and our stock-based compensation expense could have been materially different.

Estimates of the fair value of common stock are no longer necessary to determine the fair value of new awards in periods ended after the closing of our IPO, since the underlying shares have begun trading publicly.

Valuation of warrants

Prior to our IPO, we issued warrants exercisable into Series A-2 redeemable convertible preferred stock and Series D redeemable convertible preferred stock in connection with debt issuances. These warrants were classified as liabilities on our consolidated balance sheets as of December 30, 2020, as we determined that they met the definition of a freestanding financial instrument since they are legally detachable and also determined that such instruments represent forward sale contracts on redeemable shares and, accordingly, the instruments should be accounted for as a liability separate from the redeemable convertible preferred stock. They are reported at fair value at inception with an allocation of the proceeds from the debt issued. We remeasure these liabilities to fair value at each reporting date, and immediately prior to exercise or settlement, and recognize changes in the fair value of the liabilities in our consolidated statements of operations recorded as "change in fair value of warrants." The warrant exercisable into Series A-2 redeemable convertible preferred stock was exercised on May 11, 2021, at an exercise price of $12.58608 per share for 3,178 shares of Series A-2 redeemable convertible preferred stock. Upon closing of the IPO on October 12, 2021, the warrant exercisable into Series D redeemable convertible preferred stock was converted into a warrant exercisable for a total of 811,374 shares of common stock with an exercise price of $9.62 per warrant share. In connection with the Third Amendment to the Credit Agreement dated March 30, 2022, the exercise price of the warrants has been changed from $9.62 per warrant share to $6.00 per warrant share. The common stock warrant is no longer considered "potentially redeemable" and the fair value of the warrant liability as of October 12, 2021 has been reclassified from liabilities to equity in accordance with ASC 480 for the year ended December 31, 2021.

Recent Accounting Pronouncements

Refer to Note 2, "Summary of Significant Accounting Policies," in the accompanying notes to the consolidated financial statements for a discussion of recent accounting pronouncements.

The JOBS Act

The JOBS Act permits an emerging growth company such as us to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption and, therefore, we will not be subject to new or revised accounting standards at the same time that they become applicable to other public companies that are not emerging growth companies until such time that we either (i) irrevocably elect to "opt out" of such extended transition period or (ii) no longer qualify as an emerging growth company. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

We are exposed to market risk related to changes in interest rates. As of December 31, 2022, we had cash of $37.5 million. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of interest rates. As of December 31, 2022, our cash is held primarily in savings and checking accounts. Because of the short-term nature of the instruments in our portfolio, an immediate 10% change in the interest rate would not have a material impact on the fair market value of our investment portfolio or on our financial position or results of operations.

We are exposed to changes in the U.S. dollar based short term rates, specifically SOFR. Fluctuations in SOFR may affect the amount of interest expense we incur on borrowings indexed to SOFR, such as borrowings under our Credit Agreement, which bear interest at a rate per annum equal to the 30-day Term SOFR rate (with a minimum Term SOFR rate for such purposes of 1.75%) plus a margin of 9.5%.

Foreign Currency Exchange Rate Risk

At December 31, 2022, we had wholly owned subsidiaries in the United Kingdom and China. Our results of operations and cash flow are subject to fluctuations due to changes in foreign currency exchange rates. Certain of our revenue and expenses are denominated Chinese Yuan, the Euro and the Pound. Our results of operations and cash flow are, therefore, subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. We do not hedge our foreign currency exchange risk and the materiality of these fluctuations have not had a material effect on our financial results. In the future, we may enter into formal currency hedging transactions to decrease the risk of financial exposure from fluctuations in the exchange rates of our principal operating currencies. These measures, however, may not adequately protect us from significant changes in such fluctuations.

Item 8. Financial Statements and Supplementary Data

ISOPLEXIS CORPORATION AND SUBSIDIARIES

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the shareholders and the Board of Directors of IsoPlexis Corporation

Opinion on the Financial Statements
We have audited the accompanying balance sheets of IsoPlexis Corporation and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations, changes in redeemable convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the two years in the period ended December 31, 2022 and the related notes, (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Going Concern
The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has incurred recurring losses from operations, negative cash flows and may be unable to remain in compliance with certain financial covenants required by its credit agreement that raises substantial doubt about its ability to continue as a going concern. Management’s plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Change in Accounting Principle
As discussed in Note 1 to the financial statements, effective January 1, 2022, the Company adopted FASB ASC Topic 842, *Leases*, using the modified retrospective transition approach.

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

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

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

/s/ Deloitte & Touche LLP

Hartford, CT

March 2, 2023

We have served as the Company's auditor since 2020.

ISOPLEXIS CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS

(in thousands, except share amounts)	December 31, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 37,465	$ 126,566
Accounts receivable (net of allowance for doubtful accounts of $325 thousand as of December 31, 2022 and $46 thousand as of December 31, 2021)	4,502	4,100
Inventories, net	27,516	24,299
Prepaid expenses and other current assets	2,382	3,478
Total current assets	71,865	158,443
Property and equipment, net	11,237	5,778
Intangible assets, net	19,824	21,008
Operating lease right-of-use assets	5,068	—
Other assets	1,074	2,243
Total assets	$ 109,068	$ 187,472
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 2,782	$ 4,839
Accrued expenses and other current liabilities	13,495	7,827
Deferred revenue	1,434	915
Total current liabilities	17,711	13,581
Long-term operating lease obligations	3,735	—
Long-term debt	46,355	31,646
Total liabilities:	67,801	45,227
Commitments and Contingencies (Notes 10, 13 and 14)		
Stockholders' equity:		
Preferred stock, $0.001 par value; 20,000,000 and zero shares authorized at December 31, 2022 and 2021, respectively; and zero shares issued or outstanding	—	—
Common stock, $0.001 par value, 400,000,000 shares authorized; 39,671,235 and 39,036,010 shares issued and outstanding as of December 31, 2022 and 2021, respectively	40	39
Additional paid-in capital	281,203	276,179
Accumulated other comprehensive income (loss)	(6)	—
Accumulated deficit	(239,970)	(133,973)
Total stockholders' equity	41,267	142,245
Total liabilities and stockholders' equity	$ 109,068	$ 187,472

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

ISOPLEXIS CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except share and per share amounts)	Year ended December 31, 2022	2021
Revenue		
Product revenue	$ 13,852	$ 16,201
Service revenue	2,909	1,057
Total revenue	16,761	17,258
Cost of product revenue	17,453	8,445
Cost of service revenue	233	47
Gross profit	(925)	8,766
Operating expenses:		
Research and development expenses	23,504	20,966
General and administrative expenses	42,680	26,349
Sales and marketing expenses	29,876	37,774
Restructuring expenses	4,245	—
Total operating expenses	100,305	85,089
Loss from operations	(101,230)	(76,323)
Other income (expense):		
Interest expense, net	(5,342)	(3,618)
Other (expense) income, net	575	(1,628)
Net loss	$ (105,997)	$ (81,569)
Accrued dividends on preferred stock	—	(10,455)
Net loss attributable to common stockholders	$ (105,997)	$ (92,024)
Basic and diluted net loss per common share	$ (2.70)	$ (8.99)
Weighted-average common shares outstanding—basic and diluted	39,318,348	10,239,869

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

ISOPLEXIS CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(in thousands)	Year ended December 31, 2022	2021
Net loss	$ (105,997)	$ (81,569)
Other comprehensive loss:		
Foreign currency translation adjustment	(6)	—
Comprehensive loss	$ (106,003)	$ (81,569)

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

ISOPLEXIS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY (DEFICIT)

(in thousands, except share and per share amounts)	Series A Preferred		Series A-2 Preferred		Series B Preferred		Series B-2 Preferred		Series C Preferred		Series C-2 Preferred		Series D Preferred		Common Stock		Additional Paid-in Capital	Accumulated Comprehensive Other Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at January 1, 2021	253,862	$ 1,596	290,002	$ 3,623	376,061	$ 6,606	237,183	$ 6,991	564,287	$ 24,839	515,218	$ 24,929	975,039	$ 74,876	2,133,904	$ 2	$ 1,151	$ —	$ (52,404)	$ (51,251)
Issuance of Preferred Stock, net of issuance cost of $0	—	—	3,178	247	—	—	—	—	—	—	—	—	130,006	10,000	—	—	—	—	—	—
Exercise of common stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	167,044	1	69	—	—	70
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,083	—	—	2,083
Conversion of preferred stock	(253,862)	(1,596)	(293,180)	(3,870)	(376,061)	(6,606)	(237,183)	(6,991)	(564,287)	(24,839)	(515,218)	(24,929)	(1,105,045)	(84,876)	26,758,688	27	153,680	—	—	153,707
Accrued dividend on preferred shares converted to common shares	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1,643,374	1	(1)	—	—	—
Issuance of common stock from initial public offering, net of underwriting and issuance costs of $14,451	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8,333,000	8	110,537	—	—	110,545
Reclassification of warrant liability to equity	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8,660	—	—	8,660
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(81,569)	(81,569)
Balance at December 31, 2021	—	—	—	—	—	—	—	—	—	—	—	—	—	—	39,036,010	39	276,179	—	(133,973)	142,245
Exercise of common stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	486,077	1	330	—	—	331
Restricted stock awards released	—	—	—	—	—	—	—	—	—	—	—	—	—	—	149,148	—	—	—	—	—
Stock-based compensation	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4,394	—	—	4,394
Warrant modification expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	300	—	—	300
Other comprehensive loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(6)	—	(6)
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(105,997)	(105,997)
Balance at December 31, 2022	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	—	$ —	39,671,235	$ 40	$ 281,203	$ (6)	$ (239,970)	$ 41,267

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

ISOPLEXIS CORPORATION AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)	Year Ended December 31, 2022	2021
Cash flows from operating activities		
Net loss	$ (105,997)	$ (81,569)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	3,533	2,307
Provision for warranty costs	390	250
Change in fair value of warrants and loan commitment	—	4,460
Amortization of debt discount	1,370	350
Amortization of right-of-use assets	1,426	—
Stock-based compensation	4,394	2,083
Provision for excess and obsolete inventories	9,145	301
Provision for bad debt	279	—
Changes in operating assets and liabilities:		
Accounts receivable	(700)	(1,178)
Inventories	(12,368)	(20,645)
Prepaid expenses and other current assets	1,092	(1,322)
Other assets	(200)	(253)
Operating lease right-of-use assets	(6,494)	—
Accounts payable	(2,055)	2,702
Accrued expenses and other current liabilities	3,701	5,448
Deferred revenue	519	559
Operating lease obligations	5,323	—
Net cash used in operating activities	(96,642)	(86,507)
Cash flows from investing activities		
Purchases of property and equipment	(7,360)	(3,798)
Payments for patents acquired and capitalized	(455)	(20,425)
Net cash used in investing activities	(7,815)	(24,223)
Cash flows from financing activities		
Proceeds from exercise of Series A-2 preferred stock warrants	—	40
Proceeds from issuance of Series D preferred stock	—	10,000
Proceeds from initial public offering of common stock, net of underwriting fees of $8,750	—	116,247
Proceeds received from borrowings on credit agreement	15,000	10,000
Initial public offering costs paid	—	(5,702)
Exercise of common stock options	330	70
Net cash provided by financing activities	15,330	130,655
Effect of exchange rate changes on cash and cash equivalents	26	—
Net change in cash and cash equivalents	(89,101)	19,925
Cash and cash equivalents at beginning of period	126,566	106,641
Cash and cash equivalents at end of period	$ 37,465	$ 126,566
Non-cash investing and financing activities		
Transfer of Tranche B loan commitment to contra-debt upon additional borrowing under credit agreement	$ —	$ 841
Transfer of Tranche C loan commitment to contra-debt upon additional borrowing under credit agreement	$ 822	$ —
Transfer of Tranche D loan commitment to contra-debt upon additional borrowing under credit agreement	$ 840	$ —
Exercise of Series A-2 preferred stock warrants	$ —	$ 207
Conversion of redeemable convertible preferred stock to common stock upon closing of the initial public offering (including $24.7 million of accrued dividends)	$ —	$ 153,707
Conversion of preferred stock warrants to common stock warrants	$ —	$ 8,660
Increase in operating lease right-of-use assets	$ 834	$ —
Increase in operating lease obligations	$ 834	$ —
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 5,392	$ 3,575

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1 - Nature of operations

IsoPlexis Corporation (together with its subsidiaries, the "Company") was incorporated in the State of Delaware in March 2013. The Company is a life sciences company building solutions to accelerate the development of curative medicines and personalized therapeutics. The Company's award-winning single-cell proteomics systems reveal unique biological activity in small subsets of cells, allowing researchers to connect more directly to in-vivo biology and develop more precise and personalized therapies. The Company's products have been adopted by researchers around the world, including each of the top 15 global pharmaceutical companies by revenue and by approximately 78% of the comprehensive cancer centers in the United States. On December 28, 2018, the Company created IsoPlexis UK Limited ("IsoPlexis UK"), which has remained dormant. IsoPlexis (Shanghai) Trading Co., Ltd. was created on October 9, 2021.

On December 21, 2022, the Company entered into an Agreement and Plan of Merger ("the Merger Agreement") with Berkeley Lights, Inc., ("Berkeley Lights") and Iceland Merger Sub Inc., a Delaware corporation and a wholly owned subsidiary of Berkeley Lights ("Merger Sub"). Pursuant to the Merger Agreement and subject to the satisfaction or waiver of the conditions set forth therein, Merger Sub will be merged with and into the Company, with the Company continuing as the surviving corporation and a wholly-owned subsidiary of Berkeley Lights (the "Merger"). Pursuant to the Merger Agreement, at the effective time of the Merger (the "Effective Time"), each share of common stock, par value $0.001, of the Company ("Common Stock") issued and outstanding immediately prior to the Effective Time (other than shares of Common Stock owned (i) by the Company as treasury stock, (ii) by Berkeley Lights or Merger Sub (unless owned by Berkeley Lights or Merger Sub in a fiduciary, representative or other capacity on behalf of other persons) or (iii) by any wholly owned subsidiary of the Company or Berkeley Lights (other than Merger Sub and unless held in a fiduciary, representative or other capacity on behalf of other persons)) will be converted into the right to receive 0.6120 fully paid and nonassessable shares (the "Exchange Ratio") of common stock, par value $0.00005, of Berkeley Lights ("Berkeley Lights Common Stock") (the "Merger Consideration"), together with cash in lieu of fractional shares of Berkeley Lights Common Stock, if any, and any unpaid dividends or other distributions. The consummation of the Merger is subject to customary closing conditions, including, among others, (i) the adoption of the Merger Agreement by the Company's stockholders and the approval by Berkeley Lights' stockholders of the issuance of Berkeley Lights Common Stock to IsoPlexis stockholders in connection with the Merger (the "Share Issuance"), (ii) termination or expiration of any waiting period applicable to the Merger under the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, (iii) effectiveness of Berkeley Lights' registration statement on Form S-4 to be filed with the Securities and Exchange Commission (the "SEC") pursuant to the Merger Agreement, (iv) approval of the listing on The Nasdaq Global Select Market of the shares of Berkeley Lights Common Stock issuable as Merger Consideration, subject to official notice of issuance and (v) the absence of a judgment or law that prevents, makes illegal, enjoins or prohibits the consummation of the Merger. The Merger Agreement generally requires the Company to operate its business in the ordinary course pending consummation of the proposed Merger and restricts the Company, without Berkeley Lights' consent, from taking certain specified actions until the Merger is completed.

Stock Split

On September 27, 2021, the Company implemented an 8-for-1 forward stock split (the "Stock Split") of the Company's common stock, $0.001 par value per share ("Common Stock"), pursuant to an amendment to the Company's amended and restated certificate of incorporation approved by the Company's board of directors and stockholders. As a result of the Stock Split, all Common Stock share and per share data and related information shown in these financial statements and related notes have been adjusted on a retroactive basis for all periods presented. There was no change in the par value of the Company's Common Stock.

Initial public offering

On October 12, 2021, the Company closed an initial public offering ("IPO") of its Common Stock through an underwritten sale of 8,333,000 shares of Common Stock at a price of $15.00 per share. The aggregate net proceeds from the IPO, after deducting underwriting discounts and commissions and other offering expenses payable by the Company, were approximately $110.5 million. The net proceeds from the IPO are being used for general corporate purposes.

Preferred stock conversion

Upon closing of the IPO on October 12, 2021, all 3,344,836 shares of redeemable convertible preferred stock that were outstanding immediately prior to the closing of the IPO automatically converted into 26,758,688 shares of Common Stock.

In addition, the Company issued 1,643,374 shares of Common Stock to the holders of the redeemable convertible preferred stock outstanding immediately prior to the closing of the IPO in respect of accrued dividends thereon accrued to but not including October 12, 2021, based on the IPO price of $15.00 per share.

COVID-19

The COVID-19 pandemic developed rapidly in 2020, with a significant number of cases. Measures taken by various governments to contain the virus have affected economic activity. The Company has taken a number of measures to monitor and mitigate the effects of COVID-19, such as safety and health measures for the Company's employees (such as social distancing and working from home) and securing the supply of materials that are essential to the production process.

At this stage, the impact on the Company's business and results has not been significant and based on the Company's experience to date, management expects this to remain the case. The Company will continue to follow the various government policies and advice.

Liquidity and ability to continue as a going concern

The accompanying financial statements are prepared in accordance with generally accepted accounting principles applicable to a going concern, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. Management has evaluated whether there are conditions and events that raise substantial doubt about the Company's ability to continue as a going concern within one year after the date the financial statements are issued.

Since its inception, the Company has incurred net losses and negative cash flows from operations.

During the years ended December 31, 2022 and 2021, the Company incurred a net loss of $106.0 million and $81.6 million, respectively, and used $96.6 million and $86.5 million in cash for operations, respectively. In addition, as of December 31, 2022, the Company had an accumulated deficit of $240.0 million. The Company expects to continue to generate operating losses and negative cash flows for the foreseeable future.

The Company has financed its operations primarily from the sale of equity securities and debt. The Company may never achieve profitability, and unless and until it does, the Company will continue to need to raise additional capital to fund its operations. In addition, as disclosed in Note 7, as of December 31, 2022, the Company has an outstanding balance under the Credit Agreement of $50.0 million. The Credit Agreement contains customary affirmative and negative covenants, which require the Company to maintain a minimum cash balance of $3.0 million and meet minimum revenue amounts measured on a quarterly basis.

As of December 31, 2022, the Company was not in compliance with the minimum total revenue covenant requirement of $26.5 million and was in compliance with the minimum cash balance covenant requirement of $3.0 million. The Company has obtained a waiver of the minimum total revenue requirements for the twelve month period ended December 31, 2022. However, the inherent uncertainties described above may impact the Company's ability to remain in compliance with these covenants over the next twelve months. If the Company breaches its financial covenants and fails to secure a waiver or forbearance from the third-party lender, such breach or failure could accelerate the repayment of the outstanding borrowings under the Credit Agreement or the exercise of other rights or remedies the third-party lender may have under applicable law. No assurance can be provided a waiver or forbearance will be granted or the outstanding borrowings under the Credit Agreement will be successfully refinanced on terms that are acceptable to the Company. These conditions and events raise substantial doubt about the Company's ability to continue as a going concern for at least a period of one year from the issuance of these audited consolidated financial statements.

The Company may seek additional funding in order to reach its business objectives. The Company may seek these funds either through public debt or equity offerings or further private equity financings, debt financings, and strategic alliances. The Company may not be able to obtain funding on acceptable terms, or at all, and the terms of any funding may adversely affect the holdings or the rights of the Company's stockholders. If the Company is unable to obtain additional funding, it could adversely affect the Company's business prospects.

The Company is subject to risks common to companies in the life sciences industry. There can be no assurance that the Company's research and development will be successful, that adequate protection for its intellectual property will be maintained, that any products developed will obtain required regulatory approval, or that any approved products will be commercially viable.

The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

Note 2 - Summary of significant accounting policies

Basis of presentation

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted ("GAAP") in the United States. Any reference in these notes to applicable guidance is meant to refer to GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") promulgated by the Financial Accounting Standards Board ("FASB").

Principles of consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries, IsoPlexis UK Limited and IsoPlexis (Shanghai) Trading Co., Ltd. All intercompany transactions have been eliminated.

Use of estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements and the reported amounts of income and expenses during the reporting period. Actual results could differ from those estimates. The most significant estimates are those used in the determination of the fair value of warrant liabilities, useful lives of long-lived assets, inventory valuation, and estimated fair value of common stock for purposes of recording equity-based incentive compensation prior to the Company's IPO.

Cash and cash equivalents

Cash equivalents consist of investments in short-term, highly liquid securities having original maturities of three months or less. The carrying values of these assets approximate their fair values. The Company maintains its cash with high-credit quality financial institutions. At times, such amounts may exceed federally insured limits.

Accounts receivable, net

Accounts receivable are recorded at net realizable value. This value includes an appropriate allowance for credit losses. The Company calculates the allowance based on historical collection experience, the aging of receivables, specific current and expected future macroeconomic and market conditions, and assessments of the current creditworthiness and economic status of customers. The Company considers a receivable delinquent if it is unpaid after the term of the related invoice has expired. Write-offs are recorded at the time all collection efforts have been exhausted. The Company reviews its allowance for credit losses on a quarterly basis.

Inventories, net

Inventories are valued at the lower of cost or market. Inventories are accounted for using the first-in, first-out method of determining inventory costs. Inventory quantities on-hand are regularly reviewed, and where necessary, provisions for excess and obsolete inventory, shrinkage, and scrap are recorded based primarily on the Company's estimated forecast of product demand and production requirements. As of year-ended 2022 and 2021, the Net Inventory balance were $27.5 million and $24.3 million, respectively.

Product and services revenue and cost of sales

The Company primarily generates product revenue from the sale of single-cell diagnostic equipment and consumables and also generates service revenues by measuring immune responses using the Company's technology.

The Company recognizes revenue when and as control of products and services is transferred to customers in an amount that reflects the consideration the Company expects to be entitled from customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the transaction price, allocating the transaction prices to each performance obligation in the contract, and recognizing revenue when or as the performance obligations have been satisfied. Revenue recognition for

contracts with multiple performance obligations is based on the separate satisfaction of each distinct performance obligation within the contract. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. The Company considers a performance obligation satisfied once the Company has transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. The transaction price is allocated to each performance obligation in proportion to its standalone selling price. If the product or service has no history of standalone sales or if the sales volume is not sufficient, the Company estimates standalone selling price maximizing the use of observable inputs such as expected cost plus a reasonable margin and competitor pricing.

The Company contracts with its customers based on purchase orders, which are short-term single orders. The Company records revenue from sales of single-cell diagnostic equipment and consumables when performance obligations under the terms of a contract with customers are satisfied, which is when control of the goods is transferred to the customer at the time of shipment. Invoicing typically occurs upon shipment and payment is typically due within 30 days from invoice. Product returns are minimal and must be requested by the customer within 72 hours of receipt. The Company recognizes service revenue when performance obligations under the terms of a contract with customers are satisfied, which is generally at the time the analysis data from measuring immune responses using the Company's technology is made available to the customer. The Company also generates revenues through the sale of extended service type warranties, which are recognized ratably over the contract term as the Company is standing ready to provide services when and if needed.

Revenue is recorded net of discounts and sales taxes collected on behalf of governmental authorities. Employee sales commissions are recorded as sales and marketing expenses when incurred as the amortization period for such costs, if capitalized, would have been one year or less.

Cost of products and services revenue consists of labor, components and overhead costs related to the products sold and services delivered, as well as royalty expense and amortization under the license technology agreements described in Note 13. The amortization of capitalized intangible assets is recognized in cost of product and service revenue. The amortization of purchased intangible assets is recognized in general and administrative operating expenses. Once products begin selling that utilize the purchased intangibles technology, amortization is recorded to cost of product and service revenue.

The Company makes judgements as to its ability to collect outstanding receivables and provides allowances when collections becomes doubtful.

Property and equipment

Property and equipment, including leasehold improvements, are carried at cost less accumulated depreciation and amortization. Depreciation and amortization are provided on a straight-line basis over the estimated useful lives of the assets, ranging from one to seven years. Amortization of leasehold improvements is recorded over the shorter of the estimated useful life of the asset or remaining lease term.

The estimated useful lives of the major classes of property and equipment as generally as follows:

	Estimated Useful Lives
Furniture and equipment	1 to 7 years
Computers and technology	3 to 5 years
Leasehold improvements	Lesser of lease term or useful life (approximately 3 to 5 years)

Patents

Costs related to filing and pursuing patent applications for products that have reached technological feasibility are capitalized and amortized over the estimated period to be benefited, not to exceed the patent lives, which may be as long as 17 years. Patent costs are amortized as part of cost of product and service revenue. The Company periodically evaluates capitalized patent costs to determine if any amounts should be written down. Patent costs for products that have not reached technological feasibility are expensed as incurred in general and administrative expenses since recoverability of such expenditures is uncertain.

License agreements

The Company has entered into and may continue to enter into license agreements to access and utilize certain technology. The Company evaluates if the license agreement results in acquisition of an asset or a business and then determines if the acquired asset has the ability to generate revenues or is subject to regulatory approval. When regulatory approval is not required and there is a probable future benefit from the license, the Company records the license as an asset and amortizes it over the estimated economic life. The Company records the amortization as a cost of product and service revenue.

Leases

The Company adopted ASU No. 2016-02 as of January 1, 2022, using a modified retrospective transition approach and elected the optional transition method to apply the provision of ASC 842 as of the effective date, rather than the earliest period presented. The Company elected the "package of practical expedients", which permits it to not reassess under the new standard the Company's prior conclusions about lease identification, lease classification and initial direct costs. The Company made an accounting policy election to exempt short-term leases of 12 months or less from balance sheet recognition requirements associated with the new standard. Leases with an initial term of twelve months or less, or on a month-to-month basis, are not recorded on the balance sheet and are recognized on a straight-line basis over the lease term. The Company also elected the practical expedient for use-of-hindsight to conclude on lease term. If applicable, the Company combines lease and non-lease components, which primarily relate to ancillary expenses associated with real estate leases such as common area maintenance charges and management fees.

The Company determines if an arrangement is a lease at inception and determines the classification of the lease, as either operating or finance, at commencement. Operating leases are included in operating lease right-of-use ("ROU") assets, accrued expenses and other current liabilities and long-term operating lease obligations on the Company's consolidated balance sheets. The Company presently does not have any finance leases.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. The Company's leases do not provide a readily determinable implicit discount rate. The Company's borrowing rate is estimated to approximate the interest rate on a collateralized basis with similar terms and payments, and in similar economic environments. Operating lease ROU assets also factor in any lease payments made, initial direct costs and lease incentives received. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that it will exercise that option. Some of the Company's leases include options to extend the lease term. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The adoption of this accounting standard resulted in recording operating lease ROU assets for five real estate and three equipment operating lease arrangements and corresponding operating lease liabilities of $5.7 million and $5.9 million, respectively, as of January 1, 2022. The operating lease ROU assets at adoption were lower than the operating lease liabilities because of the balance of the Company's deferred rent liabilities of $0.2 million at December 31, 2021, which was reclassified into operating lease assets. The adoption of the standard did not have a material effect on the Company's consolidated statements of operations or consolidated statements of cash flows.

Shipping and handling

Shipping and handling expenses are included in cost of product revenue.

Research and development state tax credits

Research and development ("R&D") tax credits exchanged for cash pursuant to the Connecticut R&D Tax Credit Exchange Program, which permits a qualified small business engaged in R&D activities within Connecticut to exchange its unused R&D tax credits for a cash amount equal to 65% of the value of exchanged credits, are recorded as a receivable and other income in the year the R&D tax credits relate to, as it is reasonably assured that the R&D tax credits will be received, based upon the Company's history of filing for and receiving the tax credits. R&D tax credits receivable where cash is expected to be received by the Company more than one year after the balance sheet date are classified as noncurrent in the consolidated balance sheets**.** The Company has recorded $0.7 million of R&D tax credits receivable as of December 31, 2022 and 2021.

Loan commitment

The Company's Credit Agreement (see Note 7) contained a commitment from the lender for an additional tranche of debt under certain conditions. The Company determined the commitment represented a freestanding financial instrument under the definition provided within the ASC Glossary, and therefore initially recorded it at fair value, with reductions in fair value that have occurred each period recorded in earnings. In 2022, the Company split the remaining tranche of debt into two borrowings and the Company drew the entire balance of the loan on June 29, 2022. The balance of the loan commitment asset is $0 at December 31, 2022. At December 31, 2021, the balance of $1.2 million was included in other assets in the consolidated balance sheet.

Detachable warrants

The Company accounts for detachable warrants on its preferred stock as freestanding financial instruments in accordance with ASC 480, *Distinguishing Liabilities from Equity,* ("ASC 840") which requires the Company to separately account for the detachable warrants at fair value. Under liability classification prior to the IPO, the fair value used for the warrants was calculated using the Black-Scholes valuation model. Upon IPO, the warrants were converted into common stock warrants and as a result of meeting the criteria for equity classified instruments in ASC 480, were reclassified into equity at the fair value at conversion. See Notes 3 and 7.

Fair value measurements

The fair value of assets and liabilities are based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value maximize the use of observable inputs and minimize the use of unobservable inputs. The Company uses a fair value hierarchy with three levels of inputs, of which the first two are considered observable and the last unobservable, to measure fair value:

Level 1 — Quoted prices in active markets for identical assets or liabilities.

Level 2 — Inputs, other than Level 1, that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

To the extent that valuation is based on models or inputs that are less observable in the market, the determination of fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

Financial instruments measured at fair value on a recurring basis include money market funds, loan commitment assets, and warrant liabilities (Note 3). The fair value of the loan commitment and warrant liabilities was determined based on Level 3 inputs as described in Note 3. An entity may elect to measure many financial instruments and certain other items at fair value at specified election dates. The Company did not elect to measure any additional financial instruments or other items at fair value.

There have been no changes to the valuation methods utilized by the Company during the years ended December 31, 2022 or 2021. The Company evaluates transfers between levels at the end of each reporting period. There were no transfers of financial instruments between levels during the years ended December 31, 2022 or 2021.

Income taxes

The Company has adopted the accounting guidance within ASC 740 on uncertainties in income taxes. ASC Topic 740, *Income Taxes*, ("ASC 740") prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

Deferred income tax assets and liabilities are recognized for the expected future tax consequences attributed to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis and net operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using the enacted tax

rates expected to be applied to taxable income in the years in which those temporary differences are expected to reverse. Deferred income taxes result primarily from temporary differences between the recognition of stock-based compensation and certain other expenses for both financial statement and income tax reporting purposes as well as net operating loss and tax carryforwards. Valuation allowances are recorded to reduce deferred income tax assets when it is more likely than not that a tax benefit will not be realized.

The Company has no unrecognized tax benefits at December 31, 2022 and 2021 and its income tax returns after 2018 are subject to audit by the applicable taxing authorities. The Company will recognize any interest and penalties associated with tax matters as part of income tax expense.

Stock-based compensation

The Company measures stock option awards made to employees and directors based on the estimated fair values of the awards and recognizes the compensation expense over the requisite service period. ASC 718, *Stock Compensation*, requires the recognition of stock-based compensation expense, using a fair value-based method, for costs related to all stock options granted. Stock-based compensation awards consist of stock options and restricted stock awards, which function similar to restricted stock units. The Company's determination of the fair value of stock options with time-based vesting on the date of grant utilizes the Black-Scholes option-pricing model, and is impacted by the estimated fair value of its common stock as well as other variables including, but not limited to, the expected term that stock options will remain outstanding, the expected common stock price volatility over the term of the stock option, risk-free interest rates and expected dividends.

The fair value of stock options is recognized over the period during which an optionee is required to provide services in exchange for the stock option award, known as the requisite service period, on a straight-line basis. Stock-based compensation expense is recognized based on the fair value determined on the date of grant and is reduced for forfeitures as they occur. The grant date is determined based on the date when a mutual understanding of the key terms of the stock option awards are established.

Due to the lack of Company-specific historical implied volatility data, the Company bases its computations of expected volatility on the historical volatility of a representative group of public companies with similar characteristics of the Company, including stage of product development and life science industry focus. The historical volatility is calculated based on a period of time commensurate with the expected term assumption. The Company uses the simplified method as prescribed by the U.S. Securities and Exchange Commission ("SEC") Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term for options granted to employees and non-employees, whereby, the expected term equals the arithmetic average of the vesting term and the original contractual term of the options due to its lack of sufficient historical data. The risk-free interest rate is based on U.S. Treasury securities with a maturity date commensurate with the expected term of the associated award. The expected dividend yield is assumed to be zero as the Company has never paid dividends and has no current plans to pay any dividends on its common stock.

Prior to the IPO, due to the absence of an active market for the Company's common stock, the Company utilized methodologies in accordance with the framework of the American Institute of Certified Public Accountants Technical Practice Aid, Valuation of Privately-Held Company Equity Securities Issued as Compensation, to estimate the fair value of its common stock. The estimated fair value of the Company's common stock was determined at each grant based upon a variety of factors, including the illiquid nature of the common stock, arm's-length sales of the Company's capital stock (including redeemable convertible preferred stock), the effect of the rights and preferences of the preferred shareholders, and the prospects of a liquidity event. Among other factors are the Company's financial position and historical financial performance, the status of technological developments within the Company's research, the composition and ability of the current research and management team, an evaluation or benchmark of the Company's competition, and the current business climate in the marketplace.

Estimates of the fair value of common stock are no longer necessary to determine the fair value of new awards in periods ended after the closing of the IPO since the underlying shares have begun trading publicly.

Impairment of long-lived and intangible assets

The Company evaluates the recoverability of its long-lived assets, which include property and equipment and intangible assets, whenever events or circumstances indicate that the carrying amount of these assets may not be recoverable. Recoverability of an asset or asset group is measured by comparison of its carrying amount to the expected future undiscounted cash flows that the asset or asset group is expected to generate. If that review indicates that the carrying amount of the long-lived asset or asset group is not recoverable, an impairment loss is recorded in the amount by

which the carrying amount of the asset or asset group exceeds its fair value. There were no impairment indicators in 2022 or 2021.

Preferred stock

The Company recorded all shares of redeemable preferred stock at their respective fair values less issuance costs on the dates of issuance. Prior to December 31, 2021, preferred stock was recorded outside of stockholders' deficit because, in the event of certain deemed liquidation events, which are events that are not considered solely within the Company's control, such as a merger, acquisition or sale of all or substantially all of the Company's assets, the preferred stock would become redeemable. All series of preferred stock outstanding as of October 12, 2021 were converted into common stock as a result of the Company's IPO. The Company's Amended and Restated Certificate of Incorporation dated October 12, 2021, authorizes preferred shares that are not subject to redemption or conversion. No preferred shares are issued or outstanding as of December 31, 2022 or 2021.

Derivatives

Upon issuing financial instruments, the Company assesses whether the nature of the host contract and any of the features embedded within the financial instrument could be considered derivatives that require bifurcation. In determining whether the embedded features represent derivatives that could require bifurcation, the Company assesses whether the economic characteristics of embedded features are not clearly and closely related to the economic characteristics and risks of the remaining component of the financial instruments (i.e., the host contracts), whether the instrument is measured at fair value with changes in fair value reported in earnings as they occur and whether a separate, non-embedded instrument with the same terms as the embedded instruments would meet the definition of a derivative instrument. When it is determined that all of the criteria above are met, the embedded derivative is separated from the host contract and carried at fair value with any changes in fair value recorded in current period earnings.

Research and development costs

Research and development expenses consist of costs incurred to develop an automated method and instrument and consumable assay (platform) that proves feasibility and expands the capability of the Company's technology. Research and development expenses include personnel costs for the Company's research and product development employees, as well as non-personnel costs such as facilities and overhead costs attributable to research and development, and professional fees payable to third parties for research services. Research and development costs are expensed as incurred.

Product warranties

The Company generally provides a one-year warranty on instruments. At the time revenue is recognized, an accrual is established for estimated warranty expenses based on historical experience as well as anticipated product performance. The Company periodically reviews the warranty reserve for adequacy and adjusts the warranty accrual, if necessary, based on actual experience and estimated costs to be incurred. Warranty expense is recorded as a component of cost of product revenue. Product warranties are meant to ensure all the Company's instruments are operating effectively and based on the terms of the purchase or service agreement.

Foreign currency translation and transactions

The Company uses the U.S. dollar as its Reporting currency for financial reporting purposes. The functional currency for the Company's foreign subsidiaries is their local currency. The translation of foreign currencies into U.S. dollars is performed for balance sheet accounts using exchange rates in effect at the balance sheet dates and revenue and expense accounts using the average exchange rate during each period. The gains and losses resulting from the translation are included in accumulated other comprehensive income in stockholders' equity and are excluded from net income. The portions of intercompany accounts receivable and accounts payable that are intended for settlement are translated at exchange rates in effect at the balance sheet date.

Transaction gains and losses generated by the effect of changes in foreign currency exchange rates on recorded assets and liabilities denominated in a currency different than the functional currency of the applicable entity are recorded in other income (expense), net. See Note 15 for further information concerning transaction gains and losses.

Net loss per share attributable to common stockholders

The Company calculates basic net loss per share and diluted net loss per share using the weighted-average number of shares of common stock outstanding for the period. Net loss per share attributable to common stockholders is calculated using the two-class method, which is an earnings allocation formula that determines net loss per share for the holders of shares of the Company's common stock and participating securities. The Company's redeemable preferred stock contained a cumulative annual dividend right whether or not declared, which after consideration increases the net loss available to common stockholders. The Company's redeemable preferred stock also contained participation rights in any dividend paid by the Company as well as residuals in liquidation and were deemed to be participating securities. The participating securities do not include a contractual obligation to share in losses of the Company and are not included in the calculation of net loss per share in the periods in which net loss is recorded. Except where the result would be antidilutive to net income (loss), diluted net income (loss) per share is computed assuming the exercise of common stock options and the conversion of outstanding shares of preferred stock.

Segment information

Operating segments are defined as components of an enterprise for which discrete financial information is available for evaluation by the chief operating decision maker in deciding how to allocate resources and in assessing operating performance. The Company manages its operations as a single segment for the purposes of allocating resources, assessing performance, and making operating decisions. For revenue by geographic area see Note 4.

Recently adopted accounting pronouncements

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments. This standard requires that credit losses be reported using an expected losses model rather than the incurred losses model that is currently used, and establishes additional disclosures related to credit risks. The Company adopted this guidance on January 1, 2022 and has completed its assessment of the standard based on the composition of the Company's portfolio of financial assets. The Company's significant financial assets that are within the scope of the new standard consist of trade receivables and deferred revenue. There was an immaterial impact to the Company's consolidated statement of operations and comprehensive loss or balance sheet upon adoption. See Note 3 for discussion of the Company's accounts receivable.

In March 2020, the FASB issued ASU No. 2020-04, Reference Rate Reform (Topic 848) ("ASU 2020-04"), which provides companies with temporary optional financial reporting alternatives to ease the potential burden in accounting for reference rate reform and includes a provision that allows companies to account for a modified contract as a continuation of an existing contract. ASU 2020-04 is effective for all entities as of March 12, 2020 through December 31, 2022. The Company entered into the Fourth Amendment to the Credit Agreement ("Fourth Amendment") on December 28, 2022, which replaced LIBOR with Term SOFR as the rate to which interest payments are indexed. There was an immaterial impact to our consolidated financial statements, cash flows, or financial condition upon adoption of this new standard and entry into the Fourth Amendment.

Note 3 - Fair Value Measurement

Certain of the Company's assets and liabilities are recorded at fair value, as described below.

The following tables set forth the Company's financial instruments that were measured at fair value on recurring basis by level within the fair value hierarchy:

	December 31, 2022			
(in thousands)	**Level 1**	**Level 2**	**Level 3**	**Total**
Cash equivalents- money market account	$ 30,308	$ —	$ —	$ 30,308

	December 31, 2021			
(in thousands)	**Level 1**	**Level 2**	**Level 3**	**Total**
Loan commitment asset	$ —	$ —	$ 1,169	$ 1,169

Under ASC 480, the preferred stock warrants (see Note 7) were freestanding financial instruments that qualified as liabilities required to be recorded at their estimated fair value at the inception date and remeasured at each reported balance sheet date thereafter until settlement. The warrant exercisable into Series A-2 redeemable convertible preferred stock was

exercised on May 11, 2021, at an exercise price of $12.58606 per share for 3,178 shares of Series A-2 redeemable convertible preferred stock. Upon closing of the IPO on October 12, 2021, the warrant held by Perceptive Credit Holdings III, LP to purchase Series D redeemable convertible preferred stock was converted to a warrant exercisable to purchase 811,374 shares of common stock under the same terms as the original warrant. This common stock warrant is no longer considered "potentially redeemable" and the outstanding balance of the warrant liability has been reclassified into equity in accordance with ASC 480 for the year ended December 31, 2021.

The Company did not change the manner in which it values assets and liabilities that are measured at fair value. The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers within the hierarchy during the years ended December 31, 2022 and 2021.

The fair value of the loan commitment was estimated based on the present value of future expected cash flows discounted at the Company's effective interest rate of 14.12% at December 31, 2021. The loan balance was fully drawn during the year ended December 31, 2022 and the loan commitment asset has been reduced to zero as shown below.

The following table presents changes during the years ended December 31, 2022 and 2021 in Level 3 liabilities measured at fair value on a recurring basis:

(in thousands)	Loan Commitment	Series D Warrants	Series A Warrants
Balances at January 1, 2021	$ 2,240	$ 4,430	$ 207
Exercise of warrant	—	—	(207)
Exercise of Tranche B loan commitment	(841)	—	—
Change in estimated fair value	(230)	4,230	—
Conversion to common share warrant	—	(8,660)	—
Balances at December 31, 2021	1,169	—	—
Exercise of Tranche C loan commitment	(497)	—	—
Change in warrant exercise price	150	—	—
Exercise of Tranche D loan commitment	(822)	—	—
Balances at December 31, 2022	$ —	$ —	$ —

On March 30, 2022, we entered into a Third Amendment to Credit Agreement and Guaranty with Perceptive Credit Holdings III, LP pursuant to which the Company amended the warrant that had been previously issued to Perceptive Credit Holdings III, LP to purchase up to 811,374 shares of common stock at an exercise price of $9.62 per share. The warrant exercise price was amended to $6.00 per share. The change in exercise price resulted in an increase to debt issuance costs of $0.3 million, half of which was recognized with the Tranche C term loan draw as shown in the table above. The other half was recognized on June 29, 2022, when Tranche D was drawn upon.

The above fair value measurements are sensitive to changes in underlying unobservable inputs. A change in those inputs could result in a significantly higher or lower fair value measurement. Changes in fair value of the warrants and loan commitment is included in other expense (income), net in the consolidated statements of operations.

Note 4 - Revenue

The Company's revenue is generated primarily from the sale of products and services. Product revenue primarily consists of sales of instruments and consumables used in single-cell research equipment. Service and other revenue primarily consists of revenue generated from measuring immune responses using the Company's technology.

Revenue by source

(in thousands)	Year Ended December 31, 2022	2021
Instruments	$ 8,236	$ 11,420
Consumables	5,615	4,781
Extended service warranty	1,240	681
Other service revenue	1,670	376
Total revenue	$ 16,761	$ 17,258

Revenue by geographic area

Based on region of destination (in thousands)	Year Ended December 31, 2022	2021
Americas[(1)]	$ 12,483	$ 12,798
Europe[(2)]	1,271	2,289
Greater China[(3)]	2,538	1,311
Asia-Pacific[(4)]	469	860
Total revenue	$ 16,761	$ 17,258

(1) Region includes revenue from the United States of America and Canada
(2) Region includes revenue from the United Kingdom, Belgium, France, Czech Republic, Spain, Germany, Sweden, Italy, Israel, Ireland, Netherlands, Portugal and Switzerland
(3) Region includes revenue from China and Taiwan
(4) Region includes revenue from Singapore, Japan, Australia, and Korea

Performance obligations

The Company regularly enters into contracts with multiple performance obligations. Most performance obligations are generally satisfied within a short time after the contract execution date. As of December 31, 2022, the aggregate amount of the transaction price allocated to remaining performance obligations was $1.4 million, of which substantially all is expected to be recognized as revenue during 2023.

Contract balances

Contract balances represent amounts presented in the consolidated balances sheets when either the Company has transferred goods or services to the customer, or the customer has paid consideration to the Company under the contract. These contract balances included accounts receivable (see Note 5) and deferred revenue. Accounts receivable balances represent amounts billed to customers for goods and services when the Company has an unconditional right to payment of the amount billed. Deferred revenue, as of December 31, 2022 and 2021 was $1.4 million and $0.9 million respectively. Deferred revenue represents cash consideration received from customers for which all services or products have not yet been transferred. Revenue recorded in 2022 included $0.6 million of previously deferred revenue that was included in contract liabilities as of December 31, 2021.

For the years ended December 31, 2022 and 2021, no single customer represented 10% or more of revenue.

Note 5 - Supplemental Balance Sheet Details

Accounts receivable, net consists of the following:

(in thousands)	December 31, 2022	2021
Accounts receivable	$ 4,827	$ 4,146
Allowance for credit losses	(325)	(46)
Total accounts receivable, net	$ 4,502	$ 4,100

Changes in the allowance for credit losses were as follows:

(in thousands)	December 31, 2022	December 31, 2021
Allowance for credit losses, beginning of year	$ 46	$ 50
Write-offs of uncollectable accounts	—	(4)
Provision for credit losses	279	—
Allowance for credit losses, end of year	$ 325	$ 46

Trade receivables associated with significant customers that totaled more than 10% of the Company's accounts receivable, net were as follows:

	December 31, 2022		December 31, 2021	
	$ (thousands)	% of Accounts Receivable, Net	$ (thousands)	% of Accounts Receivable, Net
MediMergent, LLC	$ 782	17.0 %	$ — [1]	— % [1]
PUSH-ZGC Pharmaceutical and Medical Devices Co., Ltd.	$ 652	14.2 %	$ — [1]	— % [1]

[1] Trade receivables associated with this customer did not total more than 10% of the Company's accounts receivable, net for the indicated period.

Inventories, net consists of the following:

(in thousands)	December 31, 2022	December 31, 2021
Raw materials	$ 32,347	$ 22,179
Work in process	1,266	—
Finished goods	3,409	2,481
Reserve for excess and obsolete inventory	(9,506)	(361)
Total inventories, net	$ 27,516	$ 24,299

Purchases from the following significant supplier totaled more than 10% of the Company's inventory purchases:

	December 31, 2022		December 31, 2021	
	$ (thousands)	% of Total Inventory Purchases	$ (thousands)	% of Total Inventory Purchases
R&D Systems, Inc.	$ 6,521	25.3 %	$ 4,462	14.2 %

Purchases from the following significant suppliers totaled more than 10% of the Company's accounts payable:

	December 31, 2022		December 31, 2021	
	$ (thousands)	% of Total Inventory Purchases	$ (thousands)	% of Total Inventory Purchases
Raven Biosciences ApS	$ 273	11.4 %	$ — [1]	— % [1]
R&D Systems, Inc.	$ — [1]	$ — [1]	$ 625	23.4 %

[1] Accounts payable associated with this supplier did not total more than 10% of the Company's accounts payable for the indicated period.

Property and equipment, net consist of the following:

(in thousands)	December 31, 2022	December 31, 2021
Furniture and equipment	$ 10,034	$ 5,585
Computers and technology	4,659	2,139
Leasehold improvements	1,457	1,073
Total	16,150	8,797
Accumulated depreciation	(4,913)	(3,019)
Property and equipment, net	$ 11,237	$ 5,778

Depreciation expense was $1.9 million and $1.2 million for the years ended December 31, 2022 and 2021, respectively.

Accrued expenses and other current liabilities consist of the following:

(in thousands)	December 31, 2022	December 31, 2021
Accrued compensation	$ 2,585	$ 3,656
Accrued operating expenses	8,724	3,556
Short-term operating lease liability	1,588	—
Other, including warranties	598	615
Total accrued liabilities	$ 13,495	$ 7,827

Accrued compensation includes commissions of $0.4 million, vacation of $0.4 million, and bonuses of $1.8 million at December 31, 2022 compared to commissions of $0.9 million, vacation of $0.4 million and bonuses of $2.2 million at December 31, 2021. Accrued operating expenses as of December 31, 2022 and 2021 primarily consists of accrued vendor payments and professional services fees of $2.2 million and $1.8 million, respectively.

On April 11, 2022, the Company completed a re-organization of the commercial team and company-wide reduction in force (“RIF”). This action resulted in non-recurring restructuring expenses of $4.3 million which were primarily associated with severance, benefits, and outplacement services during the second and third quarters of 2022. Restructuring liability is included within other current liabilities on the consolidated balance sheets.

The following table summarizes the restructuring liability accrual activity during the year ended December 31, 2022:

(in thousands)	Costs Incurred for the Year Ended December 31, 2022	Payments Made During the Year Ended December 31, 2022	Liability as of December 31, 2022
Severance related	$3,589	$3,589	$—
Outplacement services	225	225	—
Stock-based compensation expense	176	176	—
Consultant fees	138	138	—
Other	117	117	—
Total	$ 4,245	$ 4,245	$ —

Note 6 - Intangible assets

Intangible assets consist of the following:

(in thousands)	December 31, 2022 Remaining Useful Life (Years)	Gross	Accumulated Amortization	Net
Patents	8 - 14	$ 22,062	$ 2,488	$ 19,574
Capitalized licenses	2 - 3	670	420	250
Total intangible assets		$ 22,732	$ 2,908	$ 19,824

(in thousands)	December 31, 2021 Remaining Useful Life	Gross	Accumulated Amortization	Net
Patents	9 - 14	$ 21,607	$ 981	$ 20,626
Capitalized licenses	1 - 4	670	288	382
Total intangible assets		$ 22,277	$ 1,269	$ 21,008

Amortization expense was $1.6 million and $1.1 million for the years ended December 31, 2022 and 2021, respectively. The amortization of capitalized intangible assets is recognized in cost of product and service revenue. The amortization of purchased intangible assets is recognized in general and administrative operating expenses.

The estimated annual amortization of intangible assets for the next five years is shown in the following table. Actual amortization expense to be reported in future periods could differ from these estimates as a result of acquisitions, divestitures, and asset impairments, among other factors.

Year (in thousands)	Estimated Annual Amortization
2023	$ 1,716
2024	1,718
2025	1,634
2026	1,606
2027	1,606

Note 7 - Debt

On December 30, 2020, the Company closed on a $50.0 million Credit Agreement with Perceptive Credit Holdings III, L.P.. At December 31, 2022 and 2021, the outstanding balances under the Credit Agreement were $50.0 million and $35.0 million, respectively.

On December 28, 2022, the Company entered into a Fourth Amendment to Credit Agreement and Guaranty with Perceptive Credit Holdings, III, LP, pursuant to which the interest rate on borrowings was replaced from one-month LIBOR to forward-looking 30-day SOFR term rate (“Term SOFR”) as administered by CME Group Benchmark Administration Limited, plus the applicable margin. The interest rate floor and applicable margin remain 1.75% and 9.50%, respectively, under the Fourth Amendment. The interest rate was 13.63% at December 31, 2022.

Monthly payments of interest-only are due over the term of the loan with no scheduled loan amortization. Amounts borrowed are due and payable on the maturity date, December 30, 2025. The loan is secured by substantially all of the Company’s assets. Financial covenants include a $3.0 million minimum cash balance at all times and minimum revenue amounts measured on a quarterly basis. As of December 31, 2022, the Company was not in compliance with the minimum total revenue covenant requirement of $26.5 million and was in compliance with the minimum cash balance covenant requirement of $3.0 million. The Company has obtained a waiver of the minimum total revenue requirements for the twelve month period ended December 31, 2022. The Company has also obtained a waiver pertaining to the existence of a

“going concern” qualification in the accompanying opinion of the Company's auditors in its Annual Report on Form 10-K and any resulting event of default.

The total minimum revenue covenant requirements for the next twelve months are as follows:

Twelve-Month Period Ended	Minimum Total Revenue (in thousands)
March 31, 2023	30,179
June 30, 2023	35,221
September 30, 2023	40,649
December 31, 2023	46,660

In connection with the Credit Agreement closing, the Company issued to the lender warrants to purchase 97,504 shares of Series D preferred stock. The warrants have a 10-year contractual life and an exercise price of $76.92 per warrant share. Upon closing of the IPO on October 12, 2021, the Series D redeemable convertible preferred stock warrant was converted into a warrant exercisable for a total of 811,374 shares of common stock with an exercise price of $9.62 per warrant share. In connection with the Third Amendment to the Credit Agreement dated March 30, 2022, the exercise price of the warrants was changed from $9.62 per warrant share to $6.00 per warrant share. This common stock warrant is no longer considered “potentially redeemable” and the fair value of the warrant liability as of October 12, 2021 has been reclassified into equity in accordance with ASC 480 for the year ended December 31, 2022 and 2021 (see Note 3).

At December 31, 2021, a $1.2 million asset related to the future loan commitment was included in other assets on the balance sheet. As of December 31, 2022, the Credit Agreement has been fully borrowed and the loan commitment asset has been reclassified to debt discount and is being amortized over the term of the Credit Agreement.

Note 8 - Equity

Common stock

As of December 31, 2022 and 2021, the Company had authorized 400,000,000 shares of Common Stock of which a total of 39,671,235 shares and 39,036,010 shares were outstanding, respectively.

Preferred stock

Upon closing of the IPO on October 12, 2021, all 3,344,836 shares of redeemable convertible preferred stock that were outstanding immediately prior to the closing of the IPO automatically converted into 26,758,688 shares of Common Stock. In addition, the Company issued 1,643,374 shares of Common Stock to the holders of the redeemable convertible preferred stock outstanding immediately prior to the closing of the IPO in respect of accrued dividends thereon accrued to but not including October 12, 2021, based on the IPO price of $15.00 per share.

Redeemable preferred stock prior to conversion was as follows:

(in thousands, except share amounts)	Series A	Series A-2	Series B	Series B-2	Series C	Series C-2	Series D
Preferred Shares authorized	253,862	293,180	376,061	237,183	564,287	515,218	1,202,549
Preferred Shares outstanding prior to conversion	253,862	293,180	376,061	237,183	564,287	515,218	1,105,045
Aggregate liquidation preference	$ 2,849	$ 5,930	$ 9,890	$ 9,724	$ 31,241	$ 28,676	$ 90,315

Under the Amended and Restated Certificate of Incorporation filed upon the Company’s IPO, the Company authorized 20,000,000 shares of non-redeemable preferred stock, $0.001 par value per share (“Preferred Stock”), of which no shares were outstanding at December 31, 2022 or 2021.

Note 9 - Equity based compensation

The Company's 2014 Stock Plan (the "2014 Plan") provided for the granting of stock options or restricted stock to key employees, officers, directors and consultants. Upon effectiveness of the 2021 Plan (as defined below), no further issuances were made under the 2014 Plan.

The Company's 2021 Omnibus Incentive Compensation Plan (the "2021 Plan") was adopted by its board of directors and became effective on October 7, 2021. Following the IPO, all equity-based awards are granted under the 2021 Plan. The 2021 Plan provides for the grant of both non-statutory and incentive stock options, stock appreciation rights, restricted stock awards, restricted stock units, deferred share units, cash incentive awards and other equity-based or equity-related awards to the Company's employees, officers, directors and consultants. The terms of equity awards granted under the 2021 Plan to date are consistent with those granted under the 2014 Plan, as described below. The maximum number of shares of common stock reserved under the 2021 Plan is 3,175,766, plus the number of shares of the Company's common stock underlying awards under the 2014 Plan, not to exceed 3,953,323 shares, that become available again for grant under the 2014 Plan in accordance with its terms. The share pool will automatically increase on January 1 of each year beginning with January 1, 2022 by the lesser of (i) five percent (5%) of the number of shares of common stock issued and outstanding on December 31 of the immediately preceding calendar year and (ii) such number of shares of common stock determined by the Compensation Committee.

Stock options

Stock options expire 10 years from the date of grant. The stock options and restricted stock awards generally vest 25% upon the one-year anniversary of the service inception date and then ratably each month over the remaining 36 months. Upon termination of service, any unvested stock options are forfeited and returned to the Company. Vested stock options that are not exercised within the specified period, according to the terms and conditions of the option plan, following the termination as an employee, consultant, or service provider to the Company are surrendered back to the Company. Those stock options are added back to the 2021 Plan and made available for future grants. Compensation cost is recorded on a straight-line basis over the requisite service period of the award based on the fair value of the options issued on the measurement date.

The following table summarizes stock option activity for the year ended December 31, 2022:

	Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value (In thousands)
Outstanding as of December 31, 2021	5,105,278	$ 2.62	7.7	
Granted	1,335,924	2.67		
Forfeited	(722,471)	3.61		
Exercised	(486,077)	0.68		
Outstanding as of December 31, 2022	5,232,654	$ 2.68	7.3	$ 1,849
Vested and expected to vest as of December 31, 2022	5,232,654	$ 2.68	7.3	$ 1,849
Exercisable at December 31, 2022	2,911,394	$ 1.72	6.0	$ 1,802

The weighted-average grant-date fair value of stock options awarded during the years ended December 31, 2022 and 2021 was approximately $1.48 per share and $6.36 per share, respectively. The aggregate grant date fair value of stock options vested during the years ended December 31, 2022 and 2021 were $69,000 and $66,000, respectively. As of December 31, 2022, there was a total of $8.5 million of unrecognized employee compensation costs related to non-vested stock option awards expected to be recognized over a weighted average period of 2.3 years.

The Company estimates the fair value of stock-based compensation utilizing the Black-Scholes option pricing model, which is dependent upon several variables, such as expected term, volatility, risk-free interest rate, and expected dividends. Each of these inputs is subjective and generally requires significant judgment to determine.

The following table summarizes the range of key assumptions used to determine the fair value of stock options granted during:

	Year Ended December 31,	
	2022	2021
Risk-free interest rate	1.2 %	0.94% - 1.40%
Expected term (in years)	7	7
Expected volatility	55 %	50%- 55%
Expected dividend yield	—	—
Exercise prices	$1.90 - $3.43	$1.83 - $15.05
Estimated fair value of common stock	$1.05 - $1.90	$4.20 - $15.05

The risk-free interest rate assumption was based upon observed interest rates appropriate for the expected term of the stock options. Prior to the Company's IPO in October 2021, the expected volatility used was based on volatility of a group of similar entities, referred to as "guideline" companies. Subsequent to the IPO, the company continued to estimate its volatility based on the volatility of a group of similar entities, referred to as its "peer group". In evaluating similarity, the Company considered factors such as industry, stage of life cycle and size. The expected term is based on the average of the vesting period and the legal term. The Company has not declared any dividends in its history and does not expect to issue dividends over the life of the stock options and therefore has estimated the dividend yield to be zero.

Restricted stock awards

Restricted stock awards are rights to receive shares of the Company's Common Stock upon meeting specified vesting requirements. The fair value of a restricted stock award is the market value as determined by the closing price of the stock on the day of grant. These awards were granted under the Company's 2021 Plan.

The following table summarizes restricted stock award activity for the year ended December 31, 2022:

	Restricted Stock Awards	Weighted Average Grant Date Fair Value
Unvested as of December 31, 2021	507,013	$ 8.46
Granted	980,783	3.88
Vested	(149,148)	6.16
Forfeited	(697,491)	4.87
Unvested as of December 31, 2022	641,157	$ 5.89

As of December 31, 2022, there was approximately $3.6 million of total unrecognized compensation cost related to restricted stock awards. This amount is expected to be recognized over the remaining weighted-average vesting period of 3.1 years.

Employee stock purchase plan

In the third quarter of 2021, the Company approved the 2021 Employee Stock Purchase Plan (the "ESPP"), which became effective upon completion of our IPO. A total of 389,500 shares of Common Stock was initially reserved for issuance under the ESPP on October 7, 2021. The maximum number of shares of the Company's Common Stock which will be authorized for sale under the ESPP is equal to 2,400,000 shares. The number of shares of Common Stock reserved for issuance will automatically increase on January 1 of each calendar year, beginning on January 1, 2022, through January 1, 2031, by the lesser of (1) 1% of the number of outstanding shares of Common Stock as of the last day of the immediately preceding calendar year and (2) such number of shares of Common Stock determined by the administrator of the ESPP, provided, however, that in no event shall more than 2,400,000 shares of Common Stock be issued under the ESPP. As of December 31, 2022, there has not been an offering under the ESPP and no shares of Common Stock have been purchased under the ESPP.

Expense

The following table summarizes stock-based compensation expense, and also the allocation within the consolidated statements of operations:

	Year Ended December 31,	
(in thousands)	**2022**	**2021**
Research and development	$ 253	$ 310
General and administrative	2,741	1,305
Sales and marketing	61	468
Total stock-based compensation expense	$ 3,055	$ 2,083

The following table summarizes restricted stock-based compensation expense, and also the allocation within the consolidated statements of operations:

	Year Ended December 31,	
(in thousands)	**2022**	**2021**
Research and development	$ 302	$ —
General and administrative	371	—
Sales and marketing	666	—
Total stock-based compensation expense	$ 1,339	$ —

The $1.3 million of restricted stock-based compensation expense includes $0.2 million of accelerated expenses related to restructuring cost.

Note 10 - Commitments

Operating leases

The Company has multiple operating lease commitments for office space and equipment, which expire through 2026. At December 31, 2022, the Company's operating leases had remaining lease terms up to 4 years, including any reasonably probable extensions.

Lease balances within the Company's consolidated balance sheets were as follows:

(in thousands)	**December 31, 2022**
Assets:	
Operating lease right-of-use assets	$ 5,068
Liabilities:	
Accrued expenses and other current liabilities	$ 1,588
Long-term operating lease obligations	3,735
Total lease liabilities	$ 5,323
Supplemental non-cash disclosures	
Operating lease right-of-use assets obtained in exchange for lease obligations	$ 834

Operating lease expense, including variable and short-term lease costs, which were insignificant to the total operating lease cash flows and supplemental cash flow information were as follows:

(in thousands)	Year Ended December 31, 2022
Cost of product revenue	$ 21
Research and development expenses	108
Sales and marketing expenses	231
General and administrative expenses	1,462
Total operating lease expense	$ 1,822
Operating cash outflows from operating leases	$ 1,822

The weighted average remaining lease liability term and the weighted average discount rate were as follows:

	December 31, 2022
Weighted average lease liability term (in years)	3.29
Weighted average discount rate	5.00 %

The following table reconciles the undiscounted cash flows for each of the first five years and thereafter to the operating lease liabilities recognized in the Company's consolidated balance sheet at December 31, 2022. The reconciliation excludes short-term leases that are not recorded on the balance sheet.

(in thousands)	December 31, 2022
2023	$ 1,811
2024	1,773
2025	1,409
2026	776
2027	—
Thereafter	—
Total lease payments	$ 5,769
Less: imputed interest	(446)
Total lease liabilities	$ 5,323

At December 31, 2022, the Company had one operating lease with a three-year term that had not yet commenced. The total initial lease liability, which is immaterial to the balance sheet, is not reflected within the above maturity schedule.

Note 11 - Product warranties

The Company warrants certain products generally for periods of one year following the delivery date. Accrued warranty costs are included in accrued expenses and other current liabilities.

	December 31,	
(in thousands)	2022	2021
Accrued warranty costs, beginning of year	$ 285	$ 135
Cost of warranty services during the year	(407)	(100)
Estimated provision for warranty costs	390	250
Accrued warranty costs, end of year	$ 268	$ 285

Note 12 - Income taxes

The effective tax rate for the Company for the years ended December 31, 2022 and 2021 was zero percent. A reconciliation of the anticipated income tax rate by applying the statutory federal income tax rate of 21% to income before taxes to the amount reported in the statement of operations is as follows:

	Year Ended December 31,	
	2022	2021
U.S. statutory federal income tax rate	21.0 %	21.0 %
State income taxes	4.3 %	2.2 %
Permanent items	(0.2)%	(1.2)%
Stock-based compensation	1.7 %	0.4 %
Other	(0.3)%	0.6 %
Change in valuation allowance	(26.5)%	(23.0)%
Effective income tax rate	— %	— %

The tax effects of temporary difference and carryforwards that give rise to significant portions of the net deferred tax assets were as follows:

	December 31,	
(in thousands)	2022	2021
Deferred tax assets:		
Stock based compensation	$ 1,394	$ 702
Other accruals	1,906	526
Deferred revenue	45	40
Inventory adjustments	2,384	90
Intangible assets	156	91
ASC842 Lease Liability	1,291	—
Net operating losses	48,318	30,585
Federal and state tax credits	3,858	1,288
Capitalized research and experimental costs	3,201	—
Total deferred tax assets	62,553	33,322
Valuation allowance	(61,199)	(33,207)
Deferred tax assets, net of valuation allowance	1,354	115
Deferred tax liabilities:		
ASC842 Right-of-use asset	(1,229)	—
Depreciation and amortization	(125)	(115)
Total deferred tax liabilities	(1,354)	(115)
Deferred tax assets and liabilities, net of valuation allowance	$ —	$ —

As of December 31, 2022, the Company had net operating loss carryforwards for federal purposes of approximately $12.7 million, which expire at various dates through 2033 and approximately $184.0 million which have no expiration. The Company also had state net operating loss carryforwards of approximately $124.4 million, which expire at various dates through 2043. The Company had federal research and development tax credit carryforwards available to offset future federal income taxes of approximately $2.9 million and state of Connecticut research and development tax credit carryforwards available to offset future state income taxes of approximately $1.2 million.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (“CARES Act”) was enacted which included provisions related to NOL carryovers and carrybacks. The CARES Act amended the NOL carryback rules by allowing NOLs arising in tax years beginning after December 31, 2017 and before January 1, 2021 to be carried back to each of the 5 years preceding the year of the loss to generate a refund of previously paid income taxes. In addition, the CARES Act temporarily removed the 80% limitation under which NOLs generated post-2017 could be used to offset no more than 80% of taxable income, and allows for full use of such NOLs for tax years before January 1, 2021. The

Company has evaluated the relevant provisions of the CARES Act and has determined that it does not expect to recognize any income tax benefit related to these provisions due to its net operating losses in the current year and all prior years.

The Company's valuation allowance increased during 2022 by $28.0 million primarily due to the generation of net operating losses.

Future realization of the tax benefits of existing temporary differences and net operating loss carryforwards ultimately depends on the existence of sufficient taxable income within the carryforward period. As of December 31, 2022 and 2021, the Company performed an evaluation to determine whether a valuation allowance was needed. The Company considered all available evidence, both positive and negative, which included the results of operations for the current and preceding years. The Company concluded that it is more likely than not that the Company will not realize or the benefits of the net deferred tax assets. Accordingly, the Company maintained a full valuation allowance as of December 31, 2022 and 2021.

Under Internal Revenue Code Section 382, if a corporation undergoes an "ownership change," the corporation's ability to use its pre-change NOL carryforwards and other pre-change tax attributes to offset its post-change income may be limited. Generally, an ownership change occurs when certain shareholders increase their aggregated ownership by more than 50 percentage points over their lowest ownership percentage in a testing period (typically three years). The Company has not completed a study to assess whether an ownership change has occurred or whether there have been multiple ownership changes since becoming a "loss corporation" as defined in Section 382. Future changes in stock ownership, which may be outside of the Company's control, may trigger an ownership change. In addition, future equity offerings or acquisitions that have an equity component of the purchase price could result in an ownership change. If an ownership change has occurred or does occur in the future, utilization of the NOL carryforwards or other tax attributes may be limited, which could potentially result in the expiration of a portion of the federal and state net operating losses and tax credit carryforwards before utilization, the reduction of the Company's gross deferred tax assets and corresponding calculation allowance, and increased future tax liability to the Company.

As of December 31, 2022 and 2021, the Company did not have any unrecognized tax benefits. The Company has completed a study for the research and development credit carryforwards through December 31, 2020, and has not yet completed a study of research and development credit carryforwards for the year ended December 31, 2022. This study, once completed, may result in an adjustment to the Company's research and development credit carryforwards; however, until the study is completed, and any adjustment is known, no amounts are being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheets or statements of operations if an adjustment were required.

To the extent penalties and interest would be assessed on any underpayment of income tax, the Company's policy is that such amounts would be accrued and classified as a component of income tax expense in the financial statements. As of December 31, 2022 and 2021, the Company had no accrued interest or penalties related to uncertain tax positions.

Note 13 - Technology license agreements

License and Supply and Non-Exclusive License Agreements

The Company is party to certain license and supply agreements that provide the Company with commercial access rights to certain supplies. Under certain of the Company's supply agreements, the Company is required to make annual minimum purchases of supplies (with such minimums ranging from $25,000 per year to $500,000 per year under the applicable agreements) during the terms of such agreements, which ranges from 5 to 6 years. The Company has agreements outstanding that have been entered into during the normal course of business that may become a purchase commitment or other commitment in the future. The Company is also required to pay royalties on net sales of certain products and services under the license and supply agreements at rates that range from mid single-digit to low double-digit percentage. The Company is also party to a non-exclusive sublicense agreement that provides the Company with a non-exclusive sublicense to certain patent rights. During the term of the agreement, the Company is required to pay royalties at a low single-digit percentage rate on net revenue of products and services that are covered by the licensed patent rights. This agreement also contained a provision for a $0.2 million payment upon a change of control or IPO event, which the Company paid in December 2021. For the years ended December 31, 2022 and 2021, the Company incurred an immaterial amount in royalty expense pursuant to these agreements.

Note 14 - Legal proceedings

The Company may be party to a litigation or subject to claims incident to the ordinary course of business. Although the results of litigation and claims cannot be predicted with certainty, the Company currently believes that the final outcome of these ordinary course matters will not have a material adverse effect on its business. Regardless of the outcome, litigation can have an adverse impact on the Company because of defense and settlement costs, diversion of management resources and other factors. The Company is not currently a party to any material legal proceedings, and the Company's management believes that there are currently no claims or actions pending against the Company, the ultimate disposition of which could have a material adverse effect on the Company's results of operations or financial condition.

Note 15 - Other income (expense), net

Other income (expense), net consisted of the following:

	Year Ended December 31,	
(in thousands)	**2022**	**2021**
Grant revenue	$381	$2,667
R&D tax credit income	711	207
State income tax	(598)	(195)
Investment income	308	—
Change in fair value of warrants and loan commitment	—	(4,460)
Currency gain (loss)	(79)	(6)
Net book value of asset disposed	(137)	(36)
Other income (expense)	(11)	195
Other income (expense), net	$575	$(1,628)

Note 16 - Net loss per share attributable to common stockholders

The Company excluded the following potential common shares, presented based on amounts outstanding at each period end, from the computation of diluted net loss per share attributable to common stockholders for the periods indicated because including them would have an anti-dilutive effect:

	Year Ended December 31,	
	2022	**2021**
Options outstanding to purchase common stock	5,232,654	5,105,278
Unvested restricted stock awards	641,157	507,013

Note 17 - Related party transactions

As described in Note 7, the Company has a Credit Agreement with Perceptive Credit Holdings III, LP, which is a holder of Common Stock. There are no current receivables or payables due from or to Perceptive Credit Holdings III, LP as of December 31, 2022 and 2021.

Note 18 - Employee benefit plans

The Company maintains a retirement and profit sharing plan under Section 401(k) of the Internal Revenue Code for all of its domestic employees that meet certain qualifications. Participants in the plan may elect to contribute up to the maximum allowed by law. The Company elected to match 3% of the participant's contributions beginning in the year 2021. The Company recorded $0.9 million and $0.6 million of expense for company contributions during the years ended December 31, 2022 and 2021, respectively.

Note 19 - Subsequent events

On February 13, 2023, the Company obtained a waiver from Perceptive Credit Holdings III, LP, as administrative agent and lender under the Credit Agreement, of the minimum total revenue requirement for the twelve month period ended December 31, 2022 under the Credit Agreement.

On March 1, 2023, the Company obtained a waiver from Perceptive Credit Holdings III, LP, as administrative agent and lender under the Credit Agreement, pertaining to the existence of a “going concern” qualification in the accompanying opinion of the Company's auditors in its Annual Report on Form 10-K and any resulting event of default.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosures

Not applicable.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures as of the end of the period covered by this Form 10-K. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgement in evaluating the cost-benefit relationship of possible controls and procedures. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as of December 31, 2022.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this Form 10-K that has materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

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

Not applicable.

Part III

Item 10. Directors, Executive Officers and Corporate Governance

Board of Directors ("Board"): Set forth below are names of the persons who, as of February 15, 2023, constituted our Board of Directors and their ages, and classifications as of that date.

Name	Age	Position(s)
Gregory P. Ho	70	Class I director
Daniel Wagner	52	Class I director
Adam Wieschhaus	39	Class I director
Nachum "Homi" Shamir	69	Class II director
James R. Heath	61	Class II director
Jason Myers	47	Class III director
John G. Conley	66	Class III director and Chairman of the Board
Sean Mackay	40	Class III director and CEO

Director Qualifications--Our Nominating and Governance Committee and our Board seek to assemble a board that, as a whole, possesses the appropriate balance of professional and industry knowledge, financial expertise and high-level management experience necessary to oversee and direct our business. To that end, our Board has identified and evaluated directors in the broader context of our Board's overall composition, with the goal of recruiting members who complement and strengthen the skills of other members and who also exhibit integrity, collegiality, sound business judgment and other qualities that our Board views as critical to effective functioning of our Board. The brief biographies below include information, as of the date of this annual report on Form 10-K regarding the specific and particular experience, qualifications, attributes or skills of each director.

Board Diversity--The following table summarizes the gender and demographic diversity of our Board:

Board Diversity Matrix for IsoPlexis Corporation			
As of February 15, 2023			
Total Number of Directors			
Part I: Gender Identity	**Female**	**Male**	**Non-Binary**
Directors		8	
Part II: Demographic Background			
African American or Black			
Alaskan Native or American Indian			
Asian		1	
Hispanic or Latinx			
Native Hawaiian or Pacific Islander			
White		6	
Two or More Races or Ethnicities			
LGBTQ+			
Did Not Disclose Demographic Background	1		

The following is a brief biography of each director and a discussion of the specific experience, qualifications, attributes or skills of each director.

Gregory P. Ho has served as a member of our board of directors since 2014. Mr. Ho serves as President of Spring Mountain Capital, LP ("SMC"), an investment management firm that he co-founded with John L. Steffens in 2001. Previously, he was a Principal and Chief Financial Officer of McKinsey & Company, Inc. ("McKinsey"). During his 16 years with McKinsey, he led financial and tax planning for the firm and its worldwide partner group. Mr. Ho was also a member of the firm's Investment Committee and a Trustee of McKinsey's Profit-Sharing Retirement Plan. In these capacities, he oversaw the identification, evaluation, and selection of traditional and alternative asset managers and investments for over $1 billion of assets managed by the McKinsey Investment Office. After leaving McKinsey in 1998 and prior to co-founding SMC, Mr. Ho was a private investor and consultant. Prior to joining McKinsey, he was associated with the law firm of Donovan Leisure Newton & Irvine. Mr. Ho currently serves on the boards of ReNetX Bio, Inc. and AtlasXomics Inc. and is a member of the Advisory Board for Venture for America. He received a J.D. from Columbia Law School and a B.S. with honors in Administrative Science from Yale College. He is a member of the New York Bar and the California Bar. We believe that Mr. Ho is qualified to serve on our board of directors because of his financial expertise and experience in the venture capital industry.

Daniel Wagner has served as a member of our board of directors since 2014. Mr. Wagner has served as Senior Managing Director of Investments at Connecticut Innovations, Incorporated ("CI") since 2007 and is an active board member of multiple life sciences companies. Mr. Wagner contributes to CI's expertise in biotechnology with more than 10 years in the industry. He was previously employed by CuraGen Corporation, where he held a variety of scientific and operational management positions. He holds an M.B.A. and M.H.S. degree in Biomedical Sciences from Quinnipiac University, and a B.S. degree in Biology from the University of Dayton. We believe that Mr. Wagner is qualified to serve on our board of directors because of his extensive experience in the biotechnology and life sciences industries and experience serving as a member of other private and public company boards.

Adam Wieschhaus, Ph.D., CFA, has served as a member of our board of directors since 2021. Dr. Wieschhaus serves as a Director at Northpond Ventures, LLC ("Northpond Ventures"), a global science, medical, and technology-focused venture capital firm, since 2020, where he leads the firm's work in life science research and development solutions, molecular diagnostics, and environmental sciences. Previously, Dr. Wieschhaus was a Vice President at Cowen and Company, where he covered the life science tools and diagnostics space from 2014 to 2020. Prior to Cowen, he conducted his postdoctoral studies at Tufts Medical School, where he developed and refined drug candidates across several therapeutic areas. Dr. Wieschhaus serves on the boards of directors of various private companies, including Inflammatix, Isolere Bio, Ori Biotech, SpeeDx, Torus Biosystems, Ultivue, and Vestaron. He holds a Ph.D. from the University of Illinois College of Medicine, a B.S. in biochemistry and molecular biology from University of Georgia, and is a CFA charterholder. We believe Dr. Wieschhaus is qualified to serve on our board of directors because of his financial, managerial, and scientific experience, coupled with his substantial experience as an investor in emerging tools and diagnostics companies.

James R. Heath, Ph.D., has served as a member of our board of directors since 2015. Dr. Heath has been president of the Institute of Systems Biology since 2018 and serves on the boards of PACT Pharma, Inc., a biotechnology company, and Indi Molecular, Inc., an emerging life sciences company. He is also a member of the Scientific Advisory Board of AtlasXomics Inc., a biotechnology company, and previously served on the board of Sofie Biosciences, Inc., a biotechnology company that he co-founded, from 2010 to 2020. Dr. Heath was the Elizabeth W. Gilloon Professor and Professor of Chemistry at Caltech from 2003 to 2018, and Professor of Molecular & Medical Pharmacology at the University of California, Los Angeles (UCLA), and Director of the National Cancer Institute's NSB Cancer Center. He has founded or co-founded several companies, including NanoSys, MTI, and Indi Dx, and has served on the board of a number of organizations including the Board of Scientific Advisors of the National Cancer Institute. Dr. Heath graduated with a degree in Chemistry from Baylor University in Texas. He completed his Ph.D. in Physics and Chemistry from Rice University. He was awarded the 2000 Feynman Prize in Nanotechnology. He became a fellow of American Physical Society in 1999 and in 2009 he was named one of the seven most powerful innovators of the world by Forbes magazine. We believe that Dr. Heath is qualified to serve on our board of directors because of his extensive medical and scientific knowledge and track record of academic excellence.

John G. Conley has served as the chairman of our board of directors since 2014. Mr. Conley also serves on the board of Cognoptix, Inc., a biotechnology company, and Windgap Medical, Inc., a pharmaceutical company. Mr. Conley is also currently a partner at Gilliam Capital LLC, a life science investment firm he co-founded in 2007, and has been a member of Launchpad Venture Group since 2013. From 2015 to 2018, Mr. Conley served as the Chief Operating Officer of Entrepreneurship for All, a nonprofit that is accelerating economic and social impact through fostering entrepreneurship in mid-sized cities. He co-founded the RNA interference therapeutics company Alnylam Pharmaceuticals in 2002 where he held the position of Vice President, Strategy and Finance and Chief Financial Officer through to its successful IPO in 2004. Prior to that, he had over ten years of experience at Biogen where he served in several marketing, business development, sales and finance positions, including Country Manager – United Kingdom and Ireland, and Treasurer. He was a Manager at the strategy-consulting firm of Bain & Company for four years. Mr. Conley graduated with a B.S. in Economics from the University of Pennsylvania's Wharton School and an M.B.A. from the Yale School of Management. He was a 2014 Fellow in the Advanced Leadership Initiative at Harvard University. We believe that Mr. Conley is qualified to serve on our board of directors because of his extensive leadership experience in the biotechnology and life sciences industries.

Sean Mackay, our co-founder, has served as our Chief Executive Officer and as a member of our board of directors since 2014. Mr. Mackay also serves on the board of AbbraTech, a biotechnology company. Previously, Mr. Mackay worked at Lazard, and advised on a number of transactions across industries, helping life sciences and medical device companies manage and reconfigure their capital structures to pursue various operational goals. Additionally, Mr. Mackay was part of Kleiner Perkins-incubated Lifesquare, which aimed to connect patients, payers, and providers through sharing essential healthcare information. Throughout his career, Mr. Mackay has focused on advising and building companies that can improve the healthcare ecosystem with breakthrough technology. Mr. Mackay has co-authored publications centered around immunology and is an inventor on various patents for single cell products. We believe that Mr. Mackay is qualified to serve on our board of directors because of the perspective and experience he brings as our Chief Executive Officer, his experience in the biotechnology and life sciences industry and his scientific knowledge.

Jason Myers, Ph.D., has served as a member of our board since 2021. Dr. Myers currently serves as the Chief Executive Officer and as a member of the board of GenapSys, a genomic sequencing technology company. From 2015 to 2020, Dr. Myers founded and served as CEO and member of the board of directors of ArcherDX, Inc., a genomics and oncology technology company. He later served as President and member of the board of directors of Invitae Corporation, a medical genetics company, following its acquisition of ArcherDX, where he led oncology strategy development from 2020 to 2021. Prior to founding ArcherDX, Dr. Myers led cross-functional platform and sequencing application development for Ion TorrentTM, which was acquired by Life Technologies in 2010. Dr. Myers received his Ph.D. in Molecular Pharmacology from Stanford University School of Medicine and a Bachelor of Science from Colorado State University. We believe Dr. Myers is qualified to serve on our board of directors because of his extensive experience in the biotechnology industry and experience scaling businesses and bringing innovative technologies to market.

Nachum "Homi" Shamir has served as a member of our board since August 2022. Mr. Shamir was most recently the Chairman and Chief Executive Officer of Luminex Corporation from 2014 through its sale to DiaSorin S.p.A. ("DiaSorin") in 2021. Mr. Shamir continued to serve as President of Luminex after its sale to DiaSorin pursuant to a transition agreement with DiaSorin until June 2022. Additionally, Mr. Shamir has served as President and Chief Executive Officer of Given Imaging from 2006 through its sales to Covidien (now Medtronic) in 2014. Mr. Shamir currently serves on the Board of Directors of Strata Skin Sciences (Nasdaq: SSKN); and as Chairman of the Boards of Mediwound (Nasdaq: MDWD) and Cactuc Acquisiton Corp. (Nasdaq: CCTS). Mr. Shamir holds a Bachelor of Science degree from the Hebrew University of Jerusalem and a Masters of Public Administration from Harvard University. We believe Mr. Shamir is qualified to serve on our board of directors because of his extensive experience in the biotechnology industry, his experience leading and scaling businesses, and his experience serving as a member of other public company boards.

Executive Officers: Set forth below are the name, age and position of each of our executive officers as of February 15, 2023.

Name	Age	Position(s)
Sean Mackay	40	Chief Executive Officer, co-founder and director
John Strahley	56	Chief Financial Officer
Jing Zhou	53	Chief Scientific Officer
Richard W. Rew II	55	Senior Vice President, General Counsel & Secretary

Sean Mackay's biography is included under the section titled "Board of Directors" above.

John Strahley has served as our Chief Financial Officer since 2019. Prior to joining the Company, Mr. Strahley served as Managing Director at Ironwood Capital ("Ironwood"), a private equity fund manager, from 2010 to 2019. Mr. Strahley is a financial services professional with diverse experience in operational and investment roles with early-stage and closely held private companies. As CFO, Mr. Strahley leads strategic planning and financial management and reporting across the organization. While a Managing Director at Ironwood, Mr. Strahley was responsible for originating, structuring and closing debt and equity investments. In this role, Mr. Strahley worked closely with portfolio company management teams on strategy and execution, financial reporting, fund raising and acquisition. Prior to his time at Ironwood, Mr. Strahley was a Senior Vice President at Webster Bank, where he helped launch the bank's venture capital practice, built a loan sales and structuring group and during the 2008 financial crisis, led the credit administration group. Mr. Strahley began his career as a certified public accountant.

Jing Zhou, M.D., Ph.D., has served as our Chief Scientific Officer since 2020. Dr. Zhou served as our Senior Vice President of Translational Medicine from January 2019 to December 2019, Vice President of Immunology and Translational Medicine from January 2017 to December 2018, and Director of Immunology from January 2016 to December 2016. Working with the talented multidisciplinary teams at the Company, she is responsible for developing single cell assays for precisely profiling the functional properties and heterogeneity of immune cells using our IsoCode proteomics platform, and for discovery of predictive biomarkers as correlates of patient outcome to immunotherapies. Since joining the Company in 2015, she has led multiple studies with various biopharma and trial center leaders, particularly in the immuno-oncology space, to develop single cell polyfunctional metrics that can distinguish and predict patient response to CAR-T and antibody-based cancer immunotherapies. These novel findings have led to numerous presentations at prestigious scientific conferences including AACR, ASH, ASCO, SITC, FOCiS and high-impact publications in journals such as Blood and JITC. Prior to joining the Company, she was an immunologist at the Yale School of Medicine with expertise in defining phenotype and functionality of immune cells in diseased and healthy settings, with a good track record of 30+ scientific publications in leading journals. Dr. Zhou earned her medical degree in Clinical Medicine from Bengbu Medical College, M.S. and Ph.D. in Immunology from Shanghai Jiao Tong University, and has been the principal investigator of NIH, AHA and Yale University grants.

Richard W. Rew II has served as our Senior Vice President, General Counsel and Secretary since 2021. Prior to joining the Company, Mr. Rew served as Senior Vice President, General Counsel and Secretary from 2015 to 2021 and also served as Chief Compliance Officer from February 2021 to July 2021 at Luminex Corporation ("Luminex"), a biotechnology company now part of DiaSorin S.p.A. At Luminex, Mr. Rew was responsible for managing all legal, compliance and corporate development matters, including multiple acquisitions. Prior to his time at Luminex, Mr. Rew served as Senior Vice President, General Counsel and Secretary at ArthroCare Corporation, a publicly-traded medical devices company, from 2009 to 2014. In this role, he helped guide the company through a restatement process and successful resolution of a multi-year Department of Justice and SEC investigation and related shareholder class action litigation. Mr. Rew holds a J.D. from the University of Oklahoma and a B.A. from the University of Texas at Austin.

Corporate Governance:

Information Regarding Committees of the Board of Directors

Our Board has three committees: an Audit Committee, a Compensation Committee and a Nominating and Governance Committee. Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. Our Board of Directors has determined that each member of each committee meets the applicable Nasdaq rules and regulations regarding "independence" and each member is free of any relationship that would impair his or her individual exercise of independent judgment with regard to Isoplexis.

The following table provides our committee membership for each Board committee and the number of meetings held by each committee in 2022.

Name	Audit	Compensation	Nominating and Governance
John G. Conley	X	—	X*
Nachum "Homi" Shamir	—	X	X
James R. Heath	—	—	X
Gregory P. Ho	X*	—	—
Jason Myers	—	X*	—
Daniel Wagner	X	—	—
Adam Wieschhaus	—	X	—
Total meetings in 2022	7	6	4

* Committee Chairperson

Audit Committee

The Audit Committee was established by our Board in accordance with Section 3(a)(58)(A) of the Exchange Act to oversee our corporate accounting and financial reporting processes and audits of our financial statements. The purpose of the Audit Committee is assisting the board of directors' oversight of (1) the integrity of our financial statements, (2) our compliance with legal and regulatory requirements, (3) the independent auditors' qualifications and independence, and (4) the performance of the independent auditors and our internal audit function. The responsibilities of the Audit Committee include:

- appointment, compensation, retention and oversight of the work of our independent auditors and any other registered public accounting firm engaged for the purpose of preparing or issuing an audit report or to perform audit, review or attestation service;

- pre-approval, or the adoption of appropriate procedures to pre-approve, all audit and non-audit services to be provided by our independent auditors;

- consideration of reports or communications submitted to the Audit Committee by our independent auditors, including reports and communications related to the overall audit strategy;

- meeting with management and our independent auditors to discuss the scope of the annual audit, to review and discuss our financial statements and related disclosures, to discuss any significant matters arising from any audit and any major issues regarding accounting principles and financial statement presentations;

- discussing with members of the legal department any significant legal, compliance or regulatory matters that may have a material effect on our financial statements, business or compliance policies; and

- establishing procedures for the receipt, retention and treatment of complaints received by us regarding accounting, internal accounting controls or auditing matters, and for the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters.

The Audit Committee is currently comprised of three directors: Messrs. Ho, Conley and Wagner. Mr. Ho serves as the Chair of the Audit Committee. Our Board has adopted a written Audit Committee charter that is publicly available in the corporate governance section of our website at www.isoplexis.com.

Our Board reviews the definition of independence for Audit Committee members on an annual basis and has determined that Messrs. Ho, Conley and Wagner satisfy the independence standards for such committee established by Rule 10A-3 under the Exchange Act, and other SEC and Nasdaq listing standards, as applicable, including Rule 5605(c)(2)(A)(i) and (ii) of the Nasdaq listing standards.

Our Board has also determined that Messrs. Ho, Conley and Wagner qualify as an "audit committee financial experts," as defined in applicable SEC rules. Our Board made a qualitative assessment of Messrs. Ho, Conley and Wagner's level of knowledge and experience based on a number of factors, including Mr. Ho's previous experience as a Chief Financial Officer, Mr. Conley's experience running an investment firm, and Mr. Wagner's experience as the managing director of an investment firm.

Compensation Committee

The Compensation Committee is currently comprised of three directors: Messrs. Myers, Shamir and Dr. Wieschhaus. Dr. Myers serves as the Chair of the Compensation Committee. Each of Dr. Myers, Dr. Wieschhaus and Mr. Shamir are independent (as independence is currently defined in Rule 5605(d)(2) of the Nasdaq listing standards). Our Board has adopted a written Compensation Committee charter that is available to stockholders in the corporate governance section of our website at www.isoplexis.com.

The responsibilities of the Compensation Committee include:

- establishing and approving, and making recommendations to the board of directors regarding, performance goals and objectives relevant to the compensation of our Chief Executive Officer, evaluating the performance of our Chief Executive Officer in light of those goals and objectives and setting, or recommending to the full board of directors for approval, the Chief Executive Officer's compensation, including incentive-based and equity-based compensation, based on that evaluation;

- setting the compensation of our other executive officers, based in part on recommendations of the Chief Executive Officer;

- exercising administrative authority under our equity incentive plans and employee benefit plans;

- establishing policies and making recommendations to our board of directors regarding director compensation; and

- preparing a compensation committee report on executive compensation as may be required from time to time to be included in our annual proxy statements or annual reports on Form 10-K filed with the SEC.

Each year, our Compensation Committee reviews with management our executive compensation tables and accompanying narrative disclosure and considers whether to recommend that it be included in proxy statements and other filings.

Compensation Committee Processes and Procedures

The agenda for each meeting of the Compensation Committee is usually developed by the Chair of the Compensation Committee, in consultation with the Chief Executive Officer and the Senior Vice President of People Operations. The Compensation Committee meets regularly in executive session. However, from time to time, various members of management and other employees as well as outside advisors or consultants may be invited by the Compensation Committee to make presentations, to provide financial or other background information or advice or to otherwise participate in Compensation Committee meetings. The Chief Executive Officer may not participate in, or be present during, any deliberations or determinations of our Compensation Committee regarding his compensation or individual performance objectives. The charter of the Compensation Committee grants the Compensation Committee full access to all books, records, facilities and personnel of the Company. In addition, under the charter, the Compensation Committee has the authority to obtain, at the expense of the Company, advice and assistance from compensation consultants and internal and external legal, accounting or other advisors and other external resources that the Compensation Committee considers necessary or appropriate in the performance of its duties. The Compensation Committee has direct responsibility for the oversight of the work of any consultants or advisers engaged for the purpose of advising our Compensation Committee. In particular, the Compensation Committee has the sole authority to retain, in its sole discretion, compensation consultants to assist in its evaluation of executive and director compensation, including the authority to approve the consultant's reasonable fees and other retention terms. Under the charter, the Compensation Committee may select, or receive advice from, a compensation consultant, legal counsel or other adviser to the Compensation Committee, other than in-house legal counsel and certain other types of advisers, only after taking into consideration six factors, prescribed by the SEC and Nasdaq, that bear upon the adviser's independence; however, there is no requirement that any adviser be independent.

In January 2022, after taking into consideration the six factors prescribed by the SEC and Nasdaq described above, IsoPlexis's Compensation Committee engaged F. W. Cook as compensation consultants. F.W. Cook was selected because it is a well-known and respected national compensation consulting firm that commonly provides information, recommendations and other executive compensation advice to compensation committees and management. F. W. Cook developed recommendations that were presented to the Compensation Committee and ultimately, the Board for consideration. In 2022, the Compensation Committee requested that F.W. Cook:

- evaluate the efficacy of our existing compensation strategy and practices in supporting and reinforcing our long-term strategic goals; and
- assist in refining our compensation strategy and in developing and implementing an executive compensation program to execute that strategy.

Nominating and Governance Committee

The Nominating and Governance Committee is responsible for identifying, reviewing and evaluating candidates to serve as directors of our Board (consistent with criteria approved by the Board), reviewing and evaluating incumbent directors, selecting candidates for election to our Board, making recommendations to our Board regarding the membership of the committees of the Board, assessing the performance of management and our Board. The responsibilities of the Nominating and Governance Committee include:

- identifying and recommending director nominees, consistent with criteria approved by the board of directors;
- developing and recommending to the board of directors standards to be applied in making determinations as to the absence of material relationships between us and a director; and
- developing and recommending corporate governance guidelines to the board of directors.

The Nominating and Governance Committee is comprised of three directors: Mr. Conley, Dr. Heath and Mr. Shamir. Mr. Conley serves as Chair of the Nominating and Governance Committee. All members of our Nominating and Governance Committee are independent (as independence is currently defined in Rule 5605(a)(2) of the Nasdaq listing standards). Our Board has adopted a written Nominating and Governance Committee charter that is available to stockholders in the corporate governance section of our website at www.isoplexis.com.

The Nominating and Governance Committee believes that candidates for director should have certain minimum qualifications, including the ability to read and understand basic financial statements, being over 21 years of age and having the highest personal integrity and ethics. Our Nominating and Governance Committee also intends to consider such factors as possessing relevant expertise upon which to be able to offer advice and guidance to management, having sufficient time to devote to the affairs of the Company, demonstrated excellence in his or her field, having the ability to exercise sound business judgment and having the commitment to rigorously represent the long-term interests of our stockholders. However, our Nominating and Governance Committee retains the right to modify these qualifications from time to time. Candidates for director nominees are reviewed in the context of the current composition of the Board, the operating requirements of the Company and the long-term interests of stockholders. In conducting this assessment, our Nominating and Governance Committee typically considers diversity, age, skills and such other factors as it deems appropriate, given our current needs and the needs of our Board, to maintain a balance of knowledge, experience and capability.

In the case of incumbent directors whose terms of office are set to expire, our Nominating and Governance Committee reviews these directors' overall service to the Company during their terms, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair the directors' independence. In the case of new director candidates, our Nominating and Governance Committee also determines whether the nominee is independent for Nasdaq purposes, which determination is based upon applicable Nasdaq listing standards, applicable SEC rules and regulations and the advice of counsel, if necessary. The Nominating and Governance Committee then uses its network of contacts to compile a list of potential candidates, but may also engage, if it deems appropriate, a professional search firm. The Nominating and Governance Committee conducts any appropriate and necessary inquiries into the backgrounds and qualifications of possible candidates after considering the function and needs of the Board. The Nominating and Governance Committee meets to discuss and consider the candidates' qualifications and then selects a nominee for recommendation to the Board by majority vote.

At this time, the Nominating and Governance Committee does not have a policy with regard to director candidates recommended by stockholders. Our Nominating and Governance Committee believes that it is in the best position to identify, review, evaluate and select qualified candidates for Board membership, based on the comprehensive criteria for Board membership approved by the Board.

Code of Ethics

In August, 2021, we adopted our Code of Business Conduct and Ethics that applies to all officers, directors, employees and agents. The Code of Business Conduct and Ethics is available in the corporate governance section of our website at www.isoplexis.com. If we make any substantive amendments to the Code of Business Conduct and Ethics or grant any waiver from a provision of the Code of Business Conduct and Ethics to any executive officer or director, we will promptly disclose the nature of the amendment or waiver on our website.

Compliance with Section 16(a) of the Exchange Act

Section 16(a) of the Exchange Act requires our officers and directors and persons who own more than 10% of a registered class of our equity securities (collectively, the "Reporting Persons") to file reports of ownership and changes in ownership with the SEC. Reporting Persons are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms they file.

Based solely on our review of copies of such forms received by us, and on representations made to us, we believe that during the year ended December 31, 2022, all filing requirements applicable to all officers, directors and greater than 10% beneficial shareholders were timely complied with.

Item 11. Executive Compensation

IsoPlexis Executive Compensation

As an emerging growth company under the JOBS Act, we have opted to comply with the executive compensation disclosure rules applicable to "smaller reporting companies" as such term is defined in the rules promulgated under the Securities Act, which permit us to limit reporting of executive compensation to our principal executive officer and our two other most highly compensated executive officers. Our executive compensation program is designed to attract, motivate and retain high quality leadership and incentivize our executive officers to achieve performance goals over the short- and long-term, which also aligns the interests of our executive officers with those of our shareholders.

Our named executive officers ("NEOs") for 2022, which consist of our principal executive officer and our two other most highly compensated executive officers, were:

- Sean Mackay, our Chief Executive Officer;
- John Strahley, our Chief Financial Officer; and
- Richard Rew, Senior Vice President, General Counsel & Secretary.

Summary Compensation Table

The following table presents compensation awarded to, earned by and paid to our NEOs for the fiscal years ended December 31, 2022 and 2021.

Name and Principal Position	Year	Salary ($)	Option Awards ($) [1]	Nonequity Incentive Compensation ($)[2]	All Other Compensation $ [3]	Total ($)
Sean Mackay, *Chief Executive Officer*	2022	550,000	561,169	330,000	2,325	1,443,494
	2021	420,000	5,758,560	210,000	5,550	6,394,110
John Strahley, *Chief Financial Officer*	2022	375,000	192,931	112,500	7,450	687,881
	2021	325,000	774,000	113,750	5,362	1,218,112
Richard Rew, Senior VP, General Counsel & Secretary	2022	400,000	192,931	120,000	6,330	719,261
	2021	90,473	177,200	44,000	—	311,673

(1) The amounts reported here do not reflect the actual economic value realized by each NEO. In accordance with SEC rules, these columns represent the grant date fair value of shares underlying stock options, calculated in accordance with Accounting Standards Update 718, "Compensation—Stock Compensation (Topic 718)." For additional information, see note 2 in "Notes to the Consolidated Financial Statements" contained in this Form 10-K for the year ended December 31, 2022. The assumptions used in calculating the grant date fair value of the stock options reported in this table are set forth in Note 9 in "Notes to the Consolidated Financial Statements" contained in this Form 10-K for the year ended December 31, 2022.
(2) Reflects annual incentive bonuses. See "—Annual Incentive Awards" below for more information.
(3) This column reflects the amount of the Company's matching contributions under our 401(k) plan

Narrative Disclosure to Summary Compensation Table

The following describes the material elements of our compensation program for the year ended December 31, 2022 as applicable to our NEOs and reflected in the Summary Compensation Table above.

Base Salary

Base salaries for our executive officers were established primarily based on individual negotiations with the executive officers when they joined the Company. In determining compensation for our executive officers, we considered salaries provided to executive officers of our peer companies, each executive officer's anticipated role criticality relative to others

at the Company, and our determination of the essential need to attract and retain these executive officers. Shortly after the completion of our Initial Public Offering, the Compensation Committee reviewed the base salary of our Chief Executive Officer, Mr. Mackay, and determined to raise it from $420,000 annually to $550,000 annually, effective January 1, 2022. The Committee later raised Mr. Strahley's base salary from $325,000 annually to $375,000 annually, also effective January 1, 2022.

Annual Incentive Awards

Each of our NEOs is eligible to receive an annual cash bonus, with the target opportunity expressed as a percentage of base salary and payable based upon the achievement of performance goals set annually by our board of directors. On January 25, 2023, the Board, after consultation with the Compensation Committee, unanimously authorized the payment of 2022 bonuses to the Named Executive Officers of 60% of each named executive officer's target based on performance against the 2022 revenue targets and other performance factors determined by the Compensation Committee and the limitations set forth in the Agreement and Plan of Merger between the Company and Berkely Lights dated December 21, 2022. The Board authorized bonuses of $330,000 for Mr. Mackay; $112,500 for Mr. Strahley and $120,000 for Mr. Rew.

Employee Benefits and Perquisites

Our NEOs are eligible to participate in our health and welfare plans on the same terms and conditions as provided to our full-time employees generally. We generally do not provide our NEOs with perquisites or other personal benefits.

Retirement Benefits

We maintain a 401(k) plan that provides eligible U.S. employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees are able to defer eligible compensation up to certain Code limits, which are updated annually. Contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. Employees are immediately and fully vested in their own contributions. The Company may elect to make matching or other contributions into participants' individual accounts. The Company did not make any such contributions in 2020, but our board of directors has approved a 3% matching contribution beginning in respect of 2021. The 401(k) plan is intended to be qualified under Section 401(a) of the Code, with the related trust intended to be tax exempt under Section 501(a) of the Code. As a tax-qualified retirement plan, contributions to the 401(k) plan are deductible by us when made, and contributions and earnings on those amounts are not taxable to the employees until withdrawn or distributed from the 401(k) plan.

Employment Agreements.

Of the Company's executive officers, only Messrs. Strahley and Rew are party to an offer letter with the Company (collectively, the "Offer Letters"). The Offer Letters provide for a lump sum payment equal to six months' base salary in the event of a termination of employment without "cause" within 12 months of a change of control, subject to execution and non-revocation of a general release in favor of IsoPlexis. For purposes of the Offer Letters, "cause" is not defined and is determined by IsoPlexis in its sole discretion. The Offer Letters include a requirement that each executive enters into IsoPlexis' customary Confidentiality, Non-Competition and Invention Assignment Agreement, which includes a perpetual confidentiality covenant and one-year post-employment non-competition and employee and consultant non-solicitation covenants.

Long-Term Incentive Awards

We have granted our NEOs from time to time stock options to purchase shares of our common stock, each with an exercise price equal to the fair market value of a share of our common stock on the date of grant and subject to the terms of our 2014 Stock Plan and 2021 Omnibus Incentive Compensation Plan (see "—Equity Plans" below) and the applicable award agreement. Generally 25% of the stock options granted to the NEOs vest upon the first anniversary of the vesting commencement date, with the remainder vesting in 36 equal monthly installments thereafter. Certain of Mr. Mackay's stock options are also subject to performance goals. For more information on the stock options granted to our NEOs and any applicable performance goals, see "—Outstanding Equity Awards at Fiscal Year-End" and accompanying footnote disclosure below.

On March 31, 2022 the Company granted stock options to our Executive Officers as follows. Mr. Mackay was granted options to purchase 296,100 shares of the Company's common stock at an option price of $3.43/share. The options were

granted for a ten (10) year period with 25% vesting on the first anniversary of the date of the grant and the remainder vesting in 36 equal monthly installments thereafter. Mr. Strahley was granted options to purchase 101,800 shares of the Company's common stock at an option price of $3.43/share. The options were granted for a ten (10) year period with 25% vesting on the first anniversary of the date of the grant and the remainder vesting in 36 equal monthly installments thereafter. Mr. Rew was granted options to purchase 101,800 shares of the Company's common stock at an option price of $3.43/share. The options were granted for a ten (10) year period with 25% vesting on the first anniversary of the date of the grant and the remainder vesting in 36 equal monthly installments thereafter.

In the event a NEO terminates employment for any reason, all unvested stock options are forfeited, unless the NEO is terminated by the Company for cause, in which case both vested and unvested stock options are forfeited.

In connection with the Merger, each stock option (whether vested or unvested) held by an employee (including our NEOs) who continues employment with the Company following the effective time of the Merger will be, (i) if the exercise price is less than the average closing sale price for a share of the Company's common stock, rounded to the nearest one-tenth of a cent, as reported on Nasdaq for the five most recent trading days ending on and including the third business day prior to the closing date of the Merger, assumed and converted generally on the same terms and conditions (including vesting) into a [Berkeley Lights] stock option (A) with respect to a number of shares of [Berkeley Lights] common stock determined by multiplying (x) the number of shares of the Company's common stock subject to such stock option (with performance-based vesting conditions, if applicable, deemed satisfied in full) immediately prior to the effective time of the Merger, by (y) the exchange ratio, and rounding the resulting number down to the nearest whole number of shares of [Berkeley Lights] common stock and (B) with an exercise price per share equal to the number obtained by dividing (x) the exercise price per share of the Company's common stock subject to such stock option immediately prior to the effective time of the Merger, by (y) the exchange ratio, and rounding the resulting number up to the nearest whole hundredth of a cent or (ii) if the exercise price is equal to or greater than the average closing sale price for a share of the Company's common stock, rounded to the nearest one-tenth of a cent, as reported on Nasdaq for the five most recent trading days ending on and including the third business day prior to the closing date of the Merger, canceled for no consideration at the effective time of the Merger.

Outstanding Equity Awards at Fiscal Year-End

The following table presents information regarding outstanding equity awards held by our NEOs as of December 31, 2022.

		Option Awards			
Name	**Grant Date**	**Number of Securities Underlying Unexercised Options Exercisable (#)**	**Number of Securities Underlying Unexercised Options Unexercisable (#)(1)**	**Options Exercise Price ($)**	**Option Expiration Date**
Sean Mackay	11/01/2015	19,834	—	0.28	10/31/2025
	10/05/2017	140,000	—	0.73	10/4/2027
	10/20/2016	52,000	—	0.44	10/19/2026
	1/16/2018	24,000	—	0.73	1/15/2028
	2/12/2018	48,000	—	0.73	2/11/2028
	6/29/2018	52,000	—	0.73	6/28/2028
	9/27/2018	40,000	—	0.73	9/26/2028
	12/14/2018	96,000	—	0.96	12/13/2028
	04/15/2020	680,000 (2)	—	1.03	4/14/2030
	6/21/2021	279,000	465,000	4.81	6/20/2031
	3/31/2022	0	296,100	3.43	3/20/2032
John Strahley	12/04/2019	20,000	25,000	1.03	12/03/2029
	6/21/2021	37,500	62,500	4.81	6/7/2031
	3/31/2022	—	101,800	3.43	3/30/2032
Richard Rew	12/6/2021	10,000	30,000	8.02	12/5/2031
	3/31/2022	—	101,800	3.43	3/30/2032

(1) These stock options are subject to the time-based vesting schedule described above in "—Long Term Incentive Awards."

(2) These stock options were granted subject to the achievement of certain 2020 revenue targets. In December 2020 our board of directors accelerated the vesting of these stock options.

Director Compensation for 2022

In August 2021, prior to our initial public offering, we adopted our Non-Employee Director Compensation Program. Our Non-Employee Director Compensation Program is intended to attract and retain, on a long-term basis, exceptional directors. We intend to periodically evaluate our Non-Employee Director Compensation Program as part of our regular review of our overall compensation strategy.

Under our Non-Employee Director Compensation Program, each non-employee director receives cash and equity compensation for services on our board of directors. We also reimburse our non-employee directors for reasonable out-of-pocket and documented expenses incurred in attending meetings of the board of directors or any committee thereof. Each non-employee director is entitled to receive an annual retainer of $40,000, payable quarterly in arrears. In addition, the non-executive chair of our board of directors, committee chairs and committee members are entitled to receive the following additional annual retainers, payable quarterly in arrears:

- $30,000 for the non-executive chair of our board of directors;
- $15,000 for the chair of our Audit Committee;
- $8,000 for the chair of our Nominating and Governance Committee;
- $10,000 for the chair of our Compensation Committee;
- $7,500 for each other member of our Audit Committee;
- $4,000 for each other member of our Nominating and Governance Committee; and
- $5,000 for each other member of our Compensation Committee.

Each person who becomes a non-employee director will receive an automatic initial award of a number of stock options to purchase shares of our common stock determined by dividing $374,000 by the grant date closing price of our common stock. This initial award will vest in equal monthly installments over approximately three years, subject to the non-employee director continuing in service through each applicable vesting date. Additionally, on the date of each annual meeting of our stockholders following the effective date of our Non-Employee Director Compensation Program, each non-employee director continuing in service after the meeting will automatically be granted a number of stock options to purchase shares of our common stock determined by dividing $187,000 by the grant date closing price of our common stock. Such annual grants will vest on the earlier of (i) the first anniversary of such grants and (ii) the day prior to the date of the next annual meeting following the applicable grant date, in each case, subject to such non-employee director continuing in service through the vesting date.

The following table summarizes the compensation paid with respect to the fiscal year ended December 31, 2022 to each of the Company's non-employee directors:

Name	Fees earned of paid in cash ($)	Option Awards ($) [1]	All Other Compensation ($)	Total ($)
John G Conley	79,277	103,321	—	182,598
Michael Egholm	42,935	103,321	—	146,256
James R. Heath	44,953	103,321	—	148,274
Gregory P. Ho	53,206*	103,321	—	156,527
Nachum "Homi" Shamir	5,326	206,645	—	211,971
Jason Myers	45,440	103,321	—	148,761
Daniel Wagner**	45,951**	—	—	45,951
Adam Wieschhaus	—	—	—	—
Siddhartha Kadia	37,664	103,321	—	140,985

[1] We utilize the grant date fair value using the Black-Scholes method as described in Note 9 to the Notes to the Consolidated Financial Statements contained in our Annual Report on Form 10-K for the year ended December 31, 2022.
*Paid to Spring Mountain Capital, LP in lieu of Mr. Ho;
** paid to Connecticut Innovations, Incorporated in lieu of Mr. Wagner

In connection with the Merger, each stock option held by a non-employee director (whether vested or unvested) that is either (i) vested or (ii) would become vested solely as a result of the consummation of the Merger, will be exercisable through the date that is ten days prior to the effective time of the Merger. To the extent any such IsoPlexis stock options are unexercised following such date, they will be canceled for no consideration at the effective time.

Emerging Growth Company Status

We are an "emerging growth company" as defined in the JOBS Act. As an emerging growth company we will be exempt from certain requirements related to executive compensation, including, but not limited to, the requirements to hold a nonbinding advisory vote on executive compensation and to provide information relating to the ratio of total compensation of our Chief Executive Officer to the median of the annual total compensation of all of our employees, each as required by the Investor Protection and Securities Reform Act of 2010, which is part of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Potential Payments Upon Termination or Change in Control

Other than Mr. Strahley's and Mr. Rew's severance payments described above in the section titled "—Employment Agreements," none of our NEOs are entitled to any payments or benefits that are payable upon termination or in connection with a change in control of the Company.

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

The following table sets forth certain information regarding the ownership of our common stock as of February 6, 2023 by:

- each director;
- each of our named executive officers;
- each stockholder known by us to be beneficial owners of more than 5% of outstanding common stock; and
- all of our current directors and executive officers as a group.

The number of shares beneficially owned by each stockholder is determined under the rules of the SEC and includes voting or investment power with respect to securities. Under these rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, shares of common stock subject to options, warrants or other rights held by such person that are currently exercisable or will become exercisable within 60 days of February 6, 2023 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person.

Except as otherwise indicated in the footnotes to the following table, to our knowledge all persons listed below have sole voting and investment power with respect to the shares beneficially owned by them, subject to applicable community property laws.

Except as otherwise indicated, the address for each stockholder listed below is c/o IsoPlexis Corporation, 35 NE Industrial Rd, Branford, CT 06405.

Name and address of beneficial owners	Shares Beneficially Owned as of February 6, 2023	Percent Owned
5% stockholders:		
Entities affiliated with Northpond Ventures, LP[1]	8,808,531	21.8%
Entities affiliated with Spring Mountain Capital, LP[2]	6,064,661	15.0%
Entities affiliated with Perceptive Advisors LLC[3]	4,906,872	12.2%
Entities affiliated with North Sound Ventures, LP [4]	3,644,418	9.0%
Connecticut Innovations, Incorporated[5]	2,731,449	6.8%
Danaher Innovation Center LLC[6]	1,976,791	4.9%
Directors and named executive officers:		
Sean Mackay[7]	2,565,891	6.5%
John Conley[8]	310,905	*
James Heath [9]	327,435	*
Gregory Ho[10]	6,153,708	15.5%
Jason Myers[11]	105,713	*
Nachum Shamir[12]	247,095	*
John Strahley[13]	215,450	*
Richard W. Rew II [14]	58,783	*
Daniel Wagner	—	—%
Adam Wieschhaus	—	—%
All Directors and Executive Officers as a Group (11 persons) [15]	10,122,455	25.5%

* Less than 1%

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[1] Represents aggregate amount of beneficially owned shares of IsoPlexis common stock as reported in a Schedule 13D Amendment No. 1 filed by Northpond Ventures, LP ("Northpond LP"), Northpond Ventures GP, LLC ("Northpond GP"), Northpond Capital, LP ("Northpond Capital"), Northpond Capital GP, LLC ("Northpond Capital GP") and Michael P. Rubin on December 22, 2022. As of the date thereof, Northpond LP owned directly 6,727,570 shares of IsoPlexis common stock. Northpond LP has the shared power to vote, or direct the voting of, and the shared power to dispose of, or direct the disposition of, the shares of IsoPlexis common stock held by it. As the general partner of Northpond LP, Northpond GP may be deemed to be the indirect beneficial owner of the 6,727,570 shares of IsoPlexis common stock beneficially owned by Northpond LP. Northpond GP has the shared power to vote, or direct the voting of, and the shared power to dispose of, or direct the disposition of, the shares of IsoPlexis common stock held by Northpond LP. As of the date thereof, Northpond Capital owned directly 2,080,961 shares of IsoPlexis common stock. Northpond Capital has the shared power to vote, or direct the voting of, and the shared power to dispose of, or direct the disposition of, the shares of IsoPlexis common stock held by it. As the general partner of Northpond Capital, Northpond Capital GP may be deemed to be the indirect beneficial owner of the 2,080,961 shares of IsoPlexis common stock beneficially owned by Northpond Capital LP. Northpond Capital GP has the shared power to vote, or direct the voting of, and the shared power to dispose of, or direct the disposition of, the shares of IsoPlexis common stock held by Northpond Capital LP. Michael P. Rubin is the sole managing member of each of Northpond GP and Northpond Capital GP. As a result of the foregoing relationships, Mr. Rubin may be deemed to be the indirect beneficial owner of the 8,808,531 shares of IsoPlexis common stock beneficially owned by Northpond LP and Northpond Capital LP. Mr. Rubin has the shared power to vote, or direct the voting of, and the shared power to dispose of, or direct the disposition of, the shares of IsoPlexis common stock held by Northpond LP and Northpond Capital LP. Each Reporting Person disclaimed beneficial ownership of the securities reported herein except to the extent of his or its pecuniary interest therein. The address of the entities mentioned in this footnote is 7500 Old Georgetown Road, Suite 850, Bethesda, MD 20814.

[2] Represents aggregate amount of beneficially owned shares of IsoPlexis common stock as reported in a Schedule 13G filed by SMC Growth Capital II GP, LLC and affiliates on January 25, 2022. The securities are directly held by SMC Growth Capital Partners II, LP ("GCII"), SMC Private Equity Holdings, LP ("PEH") and SMC Holdings II, LP ("Holdings"). SMC Growth Capital II GP, LLC, a Delaware limited liability company ("GCII GP"), is the general partner of GCII. SMC Private Equity Holdings G.P., LLC, a Delaware limited liability company ("PEH GP"), is the general partner of PEH. SMC Holdings II G.P., LLC, a Delaware limited liability company ("Holdings GP"), is the general partner of Holdings. Spring Mountain Capital G.P., LLC, a Delaware limited liability company ("SMC GP"), is the managing member of GCII GP and PEH GP. John L. Steffens and Gregory P. Ho each serve as a managing member of SMC GP and Holdings GP. The address of the entities mentioned in this footnote is 650 Madison Avenue, 20th Floor, New York, NY 10022.

[3] Represents aggregate amount of beneficially owned shares of IsoPlexis common stock as reported in a Schedule 13G Amendment No. 1 filed by Perceptive Advisors LLC and affiliates on January 25, 2022. Neither Perceptive Advisors LLC ("Perceptive") nor Joseph Edelman directly holds any shares of IsoPlexis common stock. Perceptive Life Sciences Master Fund, Ltd. ("Master Fund") directly holds 3,554,587 shares of IsoPlexis common stock. Perceptive Credit Holdings III, LP ("Perceptive Credit Holdings III")

directly holds 335,962 shares of IsoPlexis common stock and warrants exercisable for 811,374 shares of IsoPlexis common stock. PCOF EQ AIV III, LP ("PCOF") holds directly 204,949 shares of IsoPlexis common stock. Perceptive Advisors LLC serves as the investment manager to the Master Fund. Perceptive Credit Advisors, LLC ("Perceptive Credit") serves as the investment manager to Perceptive Credit Holdings III and PCOF. Mr. Edelman is the managing member of Perceptive Advisors LLC and Perceptive Credit. The address of Perceptive and Perceptive Credit is 51 Astor Place, 10th Floor, New York, New York 10003.

(4) Based on the IsoPlexis voting agreement, includes 1,243,987 shares of IsoPlexis common stock held by North Sound Trading, LP ("NST"), 1,660,995 shares of IsoPlexis common stock held by Brian P Miller and Giovanna R Miller, JTWROS, 549,436 shares of IsoPlexis common stock held by The Miller Family 2011 Trust and 190,000 shares of IsoPlexis common stock held by Brian Paul Miller Roth Contributory IRA. As the general partner of NST and North Sound Ventures, LP ("NSV"), North Sound Management, Inc. ("NS Management") may be deemed to beneficially own the shares held by NST and NSV. Brian Miller is the sole owner of NS Management and may be deemed to beneficially own the shares of IsoPlexis common stock beneficially owned by NS Management. The address of the entities mentioned in this footnote is 115 East Putnam Avenue, Greenwich, CT 06830.

(5) Represents aggregate amount of beneficially owned shares of IsoPlexis common stock as reported in a Schedule G Amendment No. 1 filed by Connecticut Innovations, Incorporated ("CII") on February 1, 2023. The address of CII is 470 James Street, Suite 8, New Haven, CT 06513.

(6) Represents aggregate amount of beneficially owned shares of IsoPlexis common stock as reported in a Schedule 13G Amendment No. 1 filed on January 27, 2023. DHR Ventures LLC ("DV") is a subsidiary of Danaher Corporation. Danaher Corporation may be deemed to beneficially own the shares of IsoPlexis common stock held by DV. The address of DV is 2200 Pennsylvania Avenue, N.W., Suite 800W, Washington, D.C. 20037.

(7) Includes 1,651,525 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023.

(8) Includes 174,965 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023, including stock options that are being accelerated in connection with the proposed merger.

(9) Includes 327,435 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023, including stock options that are being accelerated in connection with the proposed merger.

(10) Includes (a) 89,047 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023, including stock options that are being accelerated in connection with the proposed merger, and (b) 6,064,661 shares of IsoPlexis common stock directly held by SMC Growth Capital Partners II, LP ("GCII"), SMC Private Equity Holdings, LP ("PEH") and SMC Holdings II, LP ("Holdings"). SMC Growth Capital II GP, LLC, a Delaware limited liability company ("GCII GP"), is the general partner of GCII. SMC Private Equity Holdings G.P., LLC, a Delaware limited liability company ("PEH GP"), is the general partner of PEH. SMC Holdings II G.P., LLC, a Delaware limited liability company ("Holdings GP"), is the general partner of Holdings. Spring Mountain Capital G.P., LLC, a Delaware limited liability company ("SMC GP"), is the managing member of GCII GP and PEH GP. Mr. Ho serves as a managing member of SMC GP and Holdings GP. Mr. Ho disclaims beneficial ownership, within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, or otherwise, of such portion of the securities held by GCII, PEH and Holdings in which Mr. Ho has no pecuniary interest.

(11) Includes 105,713 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023, including stock options that are being accelerated in connection with the proposed merger.

(12) Includes 196,842 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023, including stock options that are being accelerated in connection with the proposed merger.

(13) Includes 150,450 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023.

(14) Includes 38,783 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023.

(15) Includes (a) 2,753,760 shares of IsoPlexis common stock underlying stock options that are currently exercisable as of February 6, 2023 or vest within 60 days of February 6, 2023, including stock options that are being accelerated in connection with the proposed merger, and (b) 6,064,661 shares of IsoPlexis common stock directly held by SMC Growth Capital Partners II, LP, SMC Private Equity Holdings, LP and SMC Holdings II, LP, with respect to which Gregory P. Ho disclaims beneficial ownership, within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, or otherwise, of such portion in which Mr. Ho has no pecuniary interest.

Securities Authorized for Issuance Under Equity Compensation Plans

The following summarizes our equity compensation plan and warrants outstanding at December 31, 2022:

Equity Compensation Plan Information

Plan Category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	6,044,028	$ 3.61	1,898,687
Equity compensation plans not approved by security holders	—	—	—
Total	6,044,028	$ 3.61	1,898,687

See “Item 8. Financial Statements and Supplementary Data - Notes to Consolidated Financial Statements- Notes 7 and 9” for a description of our outstanding warrants and stock incentive plan.

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

Described below are all transactions occurring since January 1, 2021 and all currently proposed transactions to which either we were a party and in which (i) the amounts involved exceeded or will exceed $120,000, and (ii) a director, executive officer, holder of more than 5% of our outstanding common stock, or any member of such person's immediate family had or will have a direct or indirect material interest, other than equity and other compensation, termination, change in control and other arrangements, which are described under “Executive Compensation.” We believe the terms obtained or consideration that we paid or received, as applicable, in connection with the transactions described below were comparable to terms available or the amounts that would be paid or received, as applicable, in arm’s-length transactions with unrelated third parties.

Series D Convertible Preferred Stock Financing

In January 2021, we issued and sold an aggregate of 130,006 shares of our Series D redeemable convertible preferred stock at a purchase price of $76.92 per share for an aggregate purchase price of approximately $10.0 million to Northpond Ventures II, LP, an entity affiliated with Northpond Ventures, LP. All shares of our Series D redeemable convertible preferred stock converted to shares of common stock at IPO.

Credit Agreement and Guaranty

On December 30, 2020, we closed on a $50.0 million Credit Agreement with a significant equity investor. As of December 31, 2022, the entire credit agreement was drawn.

On December 28, 2022, the Company entered into a Fourth Amendment to Credit Agreement and Guaranty with Perceptive Credit Holdings, III, LP, pursuant to which the interest rate on borrowings was replaced from one-month LIBOR to forward-looking 30-day SOFR term rate (“Term SOFR”) as administered by CME Group Benchmark Administration Limited, plus the applicable margin. The minimum Term SOFR rate and applicable margin remain 1.75% and 9.50%, respectively, under the Fourth Amendment. The interest rate was 13.63% at December 31, 2022. Monthly payments of interest-only are due over the term of the loan with no scheduled loan amortization. Amounts borrowed are due and payable on the maturity date, December 30, 2025. The loan is secured by substantially all of the Company’s assets. Financial covenants include a $3.0 million minimum cash balance at all times and minimum revenue amounts measured on

a quarterly basis. As of December 31, 2022, the Company was in compliance with the minimum cash balance requirement and was not in compliance with the total revenue covenant requirement and has obtained a waiver from the lender of this requirement. The Company has also obtained a waiver pertaining to the existence of a "going concern" qualification in the accompanying opinion of the Company's auditors in its Annual Report on Form 10-K and any resulting event of default.

In connection with the execution of the Credit Agreement, we issued to Perceptive Credit Holdings III, LP a warrant to purchase up to 97,504 shares of Series D redeemable convertible preferred stock at a price per share equal to $76.92. Upon closing of the IPO on October 12, 2021, the Series D redeemable convertible preferred stock warrant was converted into a warrant exercisable for a total of 811,374 shares of common stock with an exercise price of $9.62 per warrant share. In connection with the Third Amendment to the Credit Agreement dated March 30, 2022, warrants were reissued and the exercise price was changed from $9.62 per warrant share to $6.00 per warrant share.

Investors' Rights Agreement

We are party to our Sixth Amended and Restated Investors' Rights Agreement (the "Investor Rights Agreement"), dated as of December 30, 2020, with certain holders of our capital stock, including entities affiliated with Northpond Ventures, LP, Spring Mountain Capital, LP, Perceptive Advisors LLC, Connecticut Innovations, Incorporated and Danaher Innovation Center LLC. The Investor Rights Agreement provides, among other things, that certain holders of our capital stock have the right to demand that we file a registration statement or request that their shares of capital stock be covered by a registration statement that we are otherwise filing, subject to certain exceptions. The registration and associated rights will expire no later than five years following the completion of our initial public offering (i.e. October 2026). All other rights set forth in the Investor Rights Agreement terminated immediately prior to the completion of our initial public offering.

Right of First Refusal and Co-Sale Agreement

We were party to our Sixth Amended and Restated Right of First Refusal and Co-Sale Agreement (the "Right of First Refusal Agreement"), dated as of December 30, 2020, under which we have a right of first refusal, and certain holders satisfying an ownership threshold of redeemable convertible preferred stock have a right of first refusal and co-sale, with respect to shares of capital stock that certain stockholders propose to sell to third parties. Entities affiliated with Northpond Ventures, LP, Spring Mountain Capital, LP, Perceptive Advisors LLC, Connecticut Innovations, Incorporated and Danaher Innovation Center LLC are among the parties to the Right of First Refusal Agreement. This Agreement terminated upon completion of the Company's initial public offering.

Voting Agreements

We were party to our Sixth Amended and Restated Voting Agreement (the "Voting Agreement"), dated as of December 30, 2020, under which certain holders of our capital stock, including Sean Mackay, our Chief Executive Officer, and entities affiliated with Northpond Ventures, LP, Spring Mountain Capital, LP, Perceptive Advisors LLC, Connecticut Innovations, Incorporated and Danaher Innovation Center LLC, have agreed to the manner in which they will vote their shares on certain matters, including the election of directors. See "Management—Board Composition." In connection with this offering, the Voting Agreement will terminate following completion of this offering and none of our stockholders will have any special rights regarding the election or designation of any members of our board of directors or the voting of our capital stock. This Agreement terminated upon completion of the Company's initial public offering.

Concurrently with the execution of the Merger Agreement, we entered into a voting agreement (the "Merger Voting Agreement") with certain holders of our capital stock, including Sean Mackay, our Chief Executive Officer, and entities affiliated with Northpond Ventures, LP, Spring Mountain Capital, LP, Perceptive Advisors LLC and Connecticut Innovations, Incorporated. Pursuant to the Merger Voting Agreement, each such stockholder agreed, among other things, (i) to vote all of the shares of our common stock held by such stockholder in favor of adoption of the Merger Agreement and the approval of the transactions contemplated by the Merger Agreement and against alternative transactions and (ii) subject to certain exceptions, not to transfer shares of our common stock held by such stockholder during the term of the Merger Voting Agreement.

Indemnification

We provide indemnification to our directors and officers so that they will be free from undue concern about personal liability in connection with their service to us. Under our Amended and Restated Bylaws and Certificate of Incorporation, we are required to indemnify our directors and officers to the extent not prohibited under Delaware or other applicable law. We have also entered into indemnity agreements with certain officers and directors. These agreements provide, among other things, that we will indemnify the officer or director, under the circumstances and to the extent provided for in the agreement, for expenses, damages, judgments, fines and settlements he or she may be required to pay in actions or proceedings which he or she is or may be made a party by reason of his or her position as a director, officer or other agent of IsoPlexis, and otherwise to the fullest extent permitted under Delaware law and our Amended and Restated Bylaws and Certificate of Incorporation.

Related Person Transactions Policy and Procedures

We have adopted a written Related Person Transactions and SEC Compliance Policy that sets forth our policies and procedures regarding the identification, review, consideration and approval or ratification of "related persons transactions." For purposes of our policy only, a "related person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we and any "related person" are participants involving an amount that exceeds $120,000. Transactions involving compensation for services provided to us as an employee, director, consultant or similar capacity by a related person are not covered by this policy. A related person is any executive officer, director, or more than 5% stockholder of the Company, including any of their immediate family members, and any entity owned or controlled by such persons.

Under the policy, where a transaction has been identified as a related person transaction, management must present information regarding the proposed related person transaction to our Audit Committee (or, where Audit Committee approval would be inappropriate, to another independent body of our Board) for consideration and approval or ratification. The presentation must include a description of, among other things, the material facts, the interests, direct and indirect, of the related persons, the benefits of the transaction to us and whether any alternative transactions were available. To identify related person transactions in advance, we rely on information supplied by our executive officers, directors and certain significant stockholders. In considering related person transactions, our Audit Committee takes into account the relevant available facts and circumstances including, but not limited to (a) the risks, costs and benefits to us, (b) the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated, (c) the terms of the transaction, (d) the availability of other sources for comparable services or products and (e) the terms available to or from, as the case may be, unrelated third parties or to or from employees generally. In the event a director has an interest in the proposed transaction, the director must recuse himself or herself from the deliberations and approval. The policy requires that, in determining whether to approve, ratify or reject a related person transaction, our Audit Committee consider, in light of known circumstances, whether the transaction is in, or is not inconsistent with, our best interests and those of our stockholders, as our Audit Committee determines in the good faith exercise of its discretion.

Independence of the Board of Directors

As required under Nasdaq listing standards, a majority of the members of a listed company's Board must qualify as "independent," as affirmatively determined by the Board. Our Board consults with our counsel to ensure that the Board's determinations are consistent with relevant securities and other laws and regulations regarding the definition of "independent," including those set forth in pertinent listing standards of Nasdaq as in effect from time to time.

Consistent with these considerations, after review of all relevant identified transactions or relationships between each director, or any of his or her family members, and us, our senior management and our independent auditors, our Board has affirmatively determined that all our directors, with the exception of Sean Mackay, our Chief Executive Officer and President, are independent directors within the meaning of the applicable Nasdaq listing standards. In making this determination, our Board found that none of these directors had a material or other disqualifying relationship with IsoPlexis.

Our Board considered the relationships between such directors and certain of our investors and determined that such relationships did not affect such directors' independence under Nasdaq listing standards, or, where applicable, under SEC rules.

Item 14. Principal Accountant Fees and Services

The following table represents aggregate fees billed to us for the years ended December 31, 2022 and 2021 by Deloitte & Touche LLP, our principal accountant.

	For the Year Ended	
(in thousands)	**12/31/2022**	**12/31/2021**
Audit Fees [1]	$ 997	$ 1,754
Audit-Related Fees	—	—
Tax Fees	—	—
All Other Fees	—	—
Total Fees	$ 997	$ 1,754

[1] Audit fees for 2022 and 2021 consist of fees billed for professional services provided in connection with the audit of our annual financial statements, the review of our quarterly financial statements, and audit services that are normally provided by independent registered public accounting firm in connection with regulatory filings and were $997,000 and $846,000 respectively. The audit fees for the fiscal year ended December 31, 2021 also include fees for professional services provided in connection with our initial public offering, including comfort letters, consents and review of documents filed with the SEC which totaled $908,000.

All fees described above were pre-approved by the Audit Committee.

Pre-Approval Policies and Procedures

Our Audit Committee has adopted a policy and procedures for the pre-approval of audit and non-audit services rendered by our independent registered public accounting firm. The policy generally pre-approves specified services in the defined categories of audit services, audit-related services and tax services up to specified amounts. Pre-approval may also be given as part of our Audit Committee's approval of the scope of the engagement of the independent auditor or on an individual, explicit, case-by-case basis before the independent auditor is engaged to provide each service. The pre-approval of services may be delegated to one or more of our Audit Committee's members, but the decision must be reported to the full Audit Committee at its next scheduled meeting.

Our Audit Committee has determined that the services other than audit services rendered by Deloitte & Touche LLP during the fiscal year ended December 31, 2022 are compatible with maintaining the principal accountant's independence.

Part IV

Item 15. Exhibits and Financial Statement Schedules

1. **Financial Statements**

We include this portion of Item 15 under Part II, Item 8 of this Form 10-K.

2. **Financial Statement Schedules**

We include the financial statement schedules required by the applicable accounting regulations of the SEC in the notes to our consolidated financial statements and incorporate that information in this Item 15 by reference.

3. **Exhibits**

		Incorporated by Reference			
Exhibit Number	**Exhibit Description**	**Form**	**File No.**	**Exhibit**	**Filing Date**
2.1	Agreement and Plan of Merger, dated as of December 21, 2022, among IsoPlexis Corporation, Berkeley Lights, Inc. and Iceland Merger Sub Inc.	8-K	001-40894	2.1	December 21, 2021
3.1	Eighth Amended and Restated Certificate of Incorporation of IsoPlexis Corporation	8-K	001-40894	3.1	October 13, 2021
3.2	Amended and Restated Bylaws of IsoPlexis Corporation	8-K	001-40894	3.2	October 13, 2021
4.1	Form of Common Stock Certificate of IsoPlexis Corporation	S-1/A	333-258046	4.1	August 20, 2021
4.2§	Amended and Restated Investors' Rights Agreement, dated as of December 30, 2020, by and among IsoPlexis Corporation and the other parties thereto	S-1/A	333-258046	4.2	August 20, 2021
4.3	Warrant Certificate, dated as of December 30, 2020, by and between IsoPlexis Corporation and Perceptive Credit Holdings III, LP	S-1	333-258046	4.3	July 20, 2021
4.4	Description of Capital Stock	10-K	001-40894	4.4	March 30, 2022
4.5	Amended Warrant Certificate by and between IsoPlexis Corporation and Perceptive Credit Holdings III, LP dated March 30, 2022	10-K	001-40894	4.5	March 30, 2022
10.1	Credit Agreement and Guaranty, dated as of December 30, 2020, by and among IsoPlexis Corporation, Perceptive Credit Holdings III, L.P., as administrative agent, and the other parties thereto	S-1	333-258046	10.1	July 20, 2021
10.2	First Amendment to Credit Agreement and Guaranty, dated as of May 27, 2021, by and among IsoPlexis Corporation, Perceptive Credit Holdings III, L.P. as administrative agent, and the other parties thereto	S-1	333-258046	10.2	July 20, 2021
10.3§	Amended and Restated License Agreement, dated as of November 28, 2015, by and between IsoPlexis Corporation and Yale University	S-1	333-258046	10.3	July 20, 2021
10.4§	Amendment to the License Agreement, dated as of December 19, 2016, by and between IsoPlexis Corporation and Yale University	S-1	333-258046	10.4	July 20, 2021

10.5§	Second Amendment to the License Agreement, dated as of January 8, 2018, by and between IsoPlexis Corporation and Yale University	S-1	333-258046	10.5	July 20, 2021
10.6§	License Agreement, dated as of March 8, 2017, by and between IsoPlexis Corporation and the California Institute of Technology	S-1	333-258046	10.6	July 20, 2021
10.7§	Patent Purchase Agreement, dated as of May 12, 2021, by and among QIAGEN Sciences, LLC, QIAGEN GmbH and IsoPlexis Corporation	S-1	333-258046	10.7	July 20, 2021
10.8†	Offer Letter, dated November 18, 2019, by and between IsoPlexis Corporation and John Strahley	S-1	333-258046	10.8	July 20, 2021
10.9§	Third Amendment to the License Agreement, executed on July 22, 2021 and effective as of April 10, 2021, by and between IsoPlexis Corporation and Yale University	S-1/A	333-258046	10.10	August 20, 2021
10.10†	Letter Agreement, dated July 22, 2021, by and between IsoPlexis Corporation and Jason Myers	S-1/A	333-258046	10.13	August 20, 2021
10.11†	IsoPlexis Corporation 2014 Stock Plan	S-1/A	333-258046	10.14	August 20, 2021
10.12†	Form of Notice of Grant under the IsoPlexis Corporation 2014 Stock Plan	S-1/A	333-258046	10.15	August 20, 2021
10.13†	IsoPlexis Corporation Non-Employee Director Compensation Program	S-1/A	333-258046	10.18	August 20, 2021
10.14	Form of Indemnification Agreement	S-1/A	333-258046	10.19	September 23, 2021
10.15†	IsoPlexis Corporation 2021 Omnibus Incentive Compensation Plan	S-8	333-260161	99.2	October 8, 2021
10.16†	IsoPlexis Corporation 2021 Employee Stock Purchase Plan	S-8	333-260161	99.3	October 8, 2021
10.17†	Offer Letter, dated September 27, 2021, by and between IsoPlexis Corporation and Richard W. Rew II	8-K	001-40894	10.1	October 13, 2021
10.18†	Notice of Restricted Stock Award Agreement under the 2021 Omnibus Incentive Compensation Plan	10-Q	001-40894	10.21	November 12, 2021
10.19†	Notice of Stock Option Award Agreement under the 2021 Omnibus Incentive Compensation Plan	10-Q	001-40894	10.22	November 12, 2021
10.20	Second Amendment to Credit Agreement and Guaranty, dated as of October 29, 2021, by and among IsoPlexis Corporation, Perceptive Credit Holdings III, L.P. as administrative agent, and the other parties thereto	8-K	001-40894	10.1	November 1, 2021
10.21	Third Amendment to Credit Agreement and Guaranty, dated as of March 30, 2022, by and among IsoPlexis Corporation, Perceptive Credit Holdings III, L.P. as administrative agent, and the other parties thereto	10-K	001-40894	10.24	March 30, 2022
10.22*	Fourth Amendment to Credit Agreement and Guaranty, dated as of December 28, 2022, bu and among IsoPlexis Corporation, Perceptive Credit Holdings III, L.P. as administrative agent, and the other parties thereto				
10.23	Limited Waiver, dated November 8, 2022, by and among IsoPlexis Corporation, Perceptive Credit Holdings, L.P., as administrative agent, and the other parties thereto	10-Q	001-40894	10.1	November 10, 2022

10.24	Voting Agreement, dated as of December 21, 2022, among Berkeley Lights, Inc., Iceland Merger Sub Inc., IsoPlexis Corporation and the stockholders party thereto	8-K	001-40894	10.1	December 21, 2022
10.25	Voting Agreement, dated as of December 21, 2022, among IsoPlexis Corporation, Berkeley Lights, Inc., Iceland Merger Sub Inc. and the stockholders party thereto	8-K	001-40894	10.2	December 21, 2022
10.26*§	Amendment No. 1 to Patent Purchase Agreement, dated as of June 10, 2022, by and among QIAGEN Sciences, LLC, QIAGEN GmbH and IsoPlexis				
10.27*	Limited Waiver, dated March 1, 2023, by and among IsoPlexis Corporation, Perceptive Credit Holdings, L.P., as administrative agent, and the other parties thereto				
10.28	Limited Waiver, dated February 13, 2023, by and among IsoPlexis Corporation, Perceptive Credit Holdings, L.P., as administrative agent, and the other parties thereto	8-K	001-40894	10.1	February 16, 2023
14.1*	Code of Business Conduct and Ethics				
21.1*	Subsidiaries of the Registrant				
23.1*	Consent of Deloitte and Touche LLP				
31.1*	CEO Certification pursuant to Section 302 of the Sarbanes-Oxley Act				
31.2*	CFO Certification pursuant to Section 302 of the Sarbanes-Oxley Act				
32.1*‡	CEO Certification pursuant to Section 906 of the Sarbanes-Oxley Act				
32.2*‡	CFO Certification pursuant to Section 906 of the Sarbanes-Oxley Act				
101.INS*	XBRL Instance Document				
101.SCH*	XBRL Taxonomy Extension Schema Document				
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document				
104*	Cover Page Interactive Data File (contained in Exhibit 101)				

* Filed herewith.

† Indicates management contract or compensatory plan.

§ Portions of the exhibit, marked by brackets, have been omitted because the omitted information (i) is not material and (ii) is the type of information the Company treats as private or confidential.

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

Item 16. Form 10-K Summary

None.

SIGNATURES

Pursuant to the requirement 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.

IsoPlexis Corporation

By:	/s/ Sean Mackay
Name:	Sean Mackay
Title:	Chief Executive Officer and Co-Founder
Date:	March 2, 2023

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

	Signature	Title	Date
By:	/s/ Sean Mackay Sean Mackay	Chief Executive Officer, Co-Founder and Director (*Principal Executive Officer*)	March 2, 2023
By:	/s/ John Strahley John Strahley	Chief Financial Officer (*Principal Financial Officer)*	March 2, 2023
By:	/s/ Rajesh Khakhar Rajesh Khakhar	Vice President, Finance (*Principal Accounting Officer)*	March 2, 2023
By:	/s/ John G. Conley John G. Conley	Chairman of the Board	March 2, 2023
By:	/s/ James R. Heath James R. Heath	Director	March 2, 2023
By:	/s/ Gregory P. Ho Gregory P. Ho	Director	March 2, 2023
By:	/s/ Daniel Wagner Daniel Wagner	Director	March 2, 2023
By:	/s/ Jason Myers Jason Myers	Director	March 2, 2023
By:	/s/ Adam Wieschhaus Adam Wieschhaus	Director	March 2, 2023
By:	/s/ Nachum Shamir Nachum Shamir	Director	March 2, 2023