PhenomeX

The Functional Cell Biology Company

2022 Annual Report

PhenomeX, Inc. was formerly known as Berkeley Lights, Inc.

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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

OR

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

For the transition period from_____to_____

Commission File Number: 001-39388

Berkeley Lights, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**35-2415390**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
5858 Horton Street, Suite 320	
Emeryville, California	**94608**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: (510)858-2855

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common stock, par value $0.00005 per share	**BLI**	**The Nasdaq Global Select Market**

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

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 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. Yes ☐ No ☒

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

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

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

Aggregate market value of registrant's common stock held by non-affiliates of the registrant, based upon the closing price of a share of the registrant's common stock on June 30, 2022 (the last business day of the registrant's most recently completed second quarter) as reported by Nasdaq Global Market on that day was approximately $300 million.

As of February 14, 2023, the registrant had 72,173,917 shares of common stock, $0.00005 par value per share, outstanding.

Portions of the registrant's Definitive Proxy Statement relating to the registrant's 2022 Annual Meeting of Shareholders are incorporated by reference into Part III of this Annual Report on Form 10-K where indicated. Such Definitive Proxy Statement will be filed with the Securities and Exchange Commission within 120 days after the end of the registrant's fiscal year ended December 31, 2022.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this "Annual Report") contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), which are subject to the "safe harbor" created by those sections. All statements, other than statements of historical facts included in this Annual Report, including statements concerning our plans, objectives, goals, beliefs, strategy and strategic objectives, future events, business conditions, results of operations, financial position, business outlook, business trends and other information, may be forward-looking statements. Forward-looking statements generally can be identified by the use of forward-looking terminology such as "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "goal," "intend," "may," "plan," "potential" "predict," "project," "seek," "should," "strategy," "target," or "will" or the negatives of these terms or variations of them or similar terminology. Although we believe that the expectations reflected in these forward-looking statements are reasonable, we cannot provide any assurance that these expectations will prove to be correct and actual results may vary materially from what is expressed in or indicated by the forward-looking statement. Such statements reflect the current views of our management with respect to our business, results of operations and future financial performance.

You should not rely upon forward-looking statements as predictions of future events. We have based the forward-looking statements contained in this Annual Report primarily on our current expectations and projections about future events and trends that we believe may affect our business, financial condition, results of operations and prospects. The outcome of the events described in these forward-looking statements is subject to risks, uncertainties and other factors, including those described in the section titled "Risk Factors" and elsewhere in this Annual Report. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time and it is not possible for us to predict all risks and uncertainties that could have an impact on the forward-looking statements contained in this Annual Report. We cannot assure you that the results, events and circumstances reflected in the forward-looking statements will be achieved or occur, and actual results, events or circumstances could differ materially from those described in the forward-looking statements. For a more detailed discussion of the risks, uncertainties and other factors that could cause actual results to differ, please refer to the "Risk Factors" in this Annual Report, as such risk factors may be updated from time to time in our periodic filings with the Securities and Exchange Commission ("SEC"). Our periodic filings are accessible on the SEC's website at www.sec.gov.

The forward-looking statements made in this Annual Report relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this Annual Report to reflect events or circumstances after the date of this Annual Report or to reflect new information or the occurrence of unanticipated events, except as required by law. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance and events and circumstances reflected in the forward-looking statements will be achieved or occur and you should not place undue reliance on our forward-looking statements. Acquisitions, mergers, dispositions, joint ventures and investments, including our announced acquisition of IsoPlexis Corporation ("IsoPlexis"), may have an impact on our future results and performance in ways that are not yet anticipated or reflected in our forward-looking statements.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Annual Report, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Unless otherwise stated or the context otherwise indicates, references to "we," "us," "our," "the Company," "BLI" and similar references refer to Berkeley Lights, Inc.

Risk Factor Summary

The risk factors detailed in Item 1A. entitled "Risk Factors" in this Annual Report are the risks that we believe are material to our investors and a reader should carefully consider them. The following is a summary of the principal risks and uncertainties described in more detail in this Annual Report. This summary does not address every aspect of our risks factors, all of the risks that we face, or other factors not presently known to us or that we currently believe are immaterial.

Refer also to the other information set forth in this Annual Report in the MD&A and Consolidated Financial Statements sections.

- We have incurred significant losses since inception, we expect to incur losses in the future and we may not be able to generate sufficient revenue to achieve or sustain profitability.
- Our success depends on the success of our Berkeley Lights Platform and market acceptance of functional cell biology. Our Berkeley Lights Platform and functional cell biology may not achieve or maintain significant commercial market acceptance.
- Historically, our revenue has been primarily generated from direct platform sales, largely driven by our Beacon, which requires a substantial sales cycle and is prone to quarterly fluctuations in revenue.
- It may be difficult for us to successfully implement our strategies for growth.
- We may not successfully implement our strategy to provide customers access to our platform and functional cell biology through alternative non-direct capital sales channels, including our subscription, partnering and services offerings.
- If we cannot maintain our current relationships with customers, fail to sustain recurring sources of revenue with our existing customers, or if we fail to enter into new relationships, our future operating results would be adversely affected as a general matter.
- We must develop new products and workflows, adapt to rigid and significant technological change and respond to introductions of new products by competitors to remain competitive, but we may be unable to develop or commercialize products and workflows successfully or at all.
- The Berkeley Lights Platform is comprised of OptoSelect chips and reagent kits, advanced automation systems and advanced application and workflow software, which may contain undetected errors or defects and may not meet the expectations of our customers, which means our business, financial condition, results of operations and prospects could suffer.
- Our future capital needs are uncertain and we may need to raise additional capital to fund our existing operations, improve our platform or develop and commercialize new products, workflows, consumables and reagent kits, or expand our operations.
- The life sciences technology market is highly competitive, and if we cannot compete successfully with our competitors, we may be unable to increase or sustain our revenue, or achieve and sustain profitability.
- Public health crises such as the current COVID-19 pandemic or similar infectious disease outbreaks have impacted and may continue to cause impacts in our business.
- The market price of our common stock has been volatile and may continue to fluctuate substantially, which could result in a substantial loss for purchasers of our common stock; and
- all other matters discussed in Item 1A. "Risk Factors" and elsewhere in this Annual Report, our subsequently filed Quarterly Reports on Form 10-Q, and our other filings with the SEC.

You should carefully consider the risks and uncertainties described under this section.

PART I

Item 1. Business

Overview

To achieve our mission of enabling the ongoing revolution in biological sciences, we have created a platform for accessing and understanding live primary biology with unprecedented speed and scale. Our capabilities represent a step change in high throughput screening technology and can be used to unlock new insights in functional biology research and therapeutics discovery. Our value proposition is to provide a streamlined functional screening platform capable of observing rare interactions, underpinned by a unique combination of high throughput screening and live biology and, specifically, primary biology where applicable/valuable.

Prior to Berkeley Lights, the platforms available to perform live biology assays typically consume or destroy cell models being tested. But with the Berkeley Lights Platform, customers can access primary tissue samples, including those that only live for short time periods ex vivo. They can also isolate, expand, manipulate, assay, and export unperturbed cells of interest for downstream analysis enabling significantly greater insight and flexibility. Not only do our customers gain both higher throughput and higher resolution, they do so while reducing time and cost. This is achieved on our OptoSelect chips, some of which can enable ten thousand plus individual cells on a single chip to be functionally characterized across multiple measurements. Processes that used to take weeks or months can now be completed in hours or days with an increased probability of success. We currently focus on enabling the large and rapidly growing markets of antibody therapeutics, cell line development, gene therapies, T Cell receptor ("TCR") discovery and agriculture with our portfolio of commercial products and services. Our goal is to establish the Berkeley Lights Platform as the standard throughout the cell-based product value chain by increasing the probability of successful product development for our customers.

The Berkeley Lights Platform can not only be used to characterize the performance of cells relevant to the desired cell-based product early in the discovery process but can also connect this phenotypic data to the genetic code for each cell. In contrast, current genomic technologies find sequences first and fail to deliver the functional information early in the process. Performing functional validation early reduces research and development expense by letting poorly performing cells fail early. We repeat this process of fail and advance many times throughout the process, identifying the best biology and delivering the best cells for what we believe will deliver the best product. We believe our platform rapidly provides the deepest information and largest relevant data cube, with linked phenotypic and genotypic data, on tens of thousands of live single cells relevant to the customers' end product specifications. We believe we are the only company exclusively focused on this approach to functional cell biology, and we believe this level of scale and precision is not attainable with other approaches. This allows us and our customers and partners, either directly or through an engagement for our service offerings, to find the best cells by:

- Performing rapid functional characterization of tens of thousands of single cells in parallel;
- Precisely controlling the environment around each cell, and maintaining cells in a healthy state for further use;
- Accessing a high degree of cell biodiversity including primary cell samples;
- Engaging functional characterization across many parameters to identify relevant phenotypic characteristics, at single-cell resolution over time and connecting this to the genotypic information for each cell;
- Performing a broad range of workflows, including single-cell assays, on an integrated platform; and
- Digitally aggregating, accessing and analyzing a rich data library for each single cell.

Using our platform, customers can perform functional characterization of single cells at scale, effectively, more often and early in the product development process. We believe this enables them to:

- Accelerate their product development cycles;
- Improve process yield and lower costs throughout the value chain;
- Enable a broad range of complex therapeutic modalities in biopharmaceuticals;
- Increase the probability of successfully developing cell-based products;

- Achieve revenue from their cell-based products sooner and potentially extend the product lifetime on the market prior to patent expiration; and
- Increase return on investment for their cell-based products.

Pending Acquisition of IsoPlexis

On December 21, 2022, we entered into a definitive agreement to acquire IsoPlexis in an all-stock transaction with an estimated purchase price of $57.8 million as of December 16, 2022 ("IsoPlexis Acquisition"). Under the terms of the agreement, IsoPlexis shareholders will receive 0.612 shares of Berkeley Lights stock for each IsoPlexis share they hold. Following the close of the transaction, Berkeley Lights shareholders will own approximately 75.2 percent of the combined company, and IsoPlexis shareholders will own approximately 24.8 percent of the combined company. The transaction is expected to close in the first quarter of 2023, subject to approval by shareholders of both Berkeley Lights and IsoPlexis and other customary closing conditions. If the merger closes, we expect the combined company to be renamed PhenomeX, which we believe will be a premier functional cell biology company that provides live cell biology research tools which deliver deep insights into cellular function and new perspectives on phenomes.

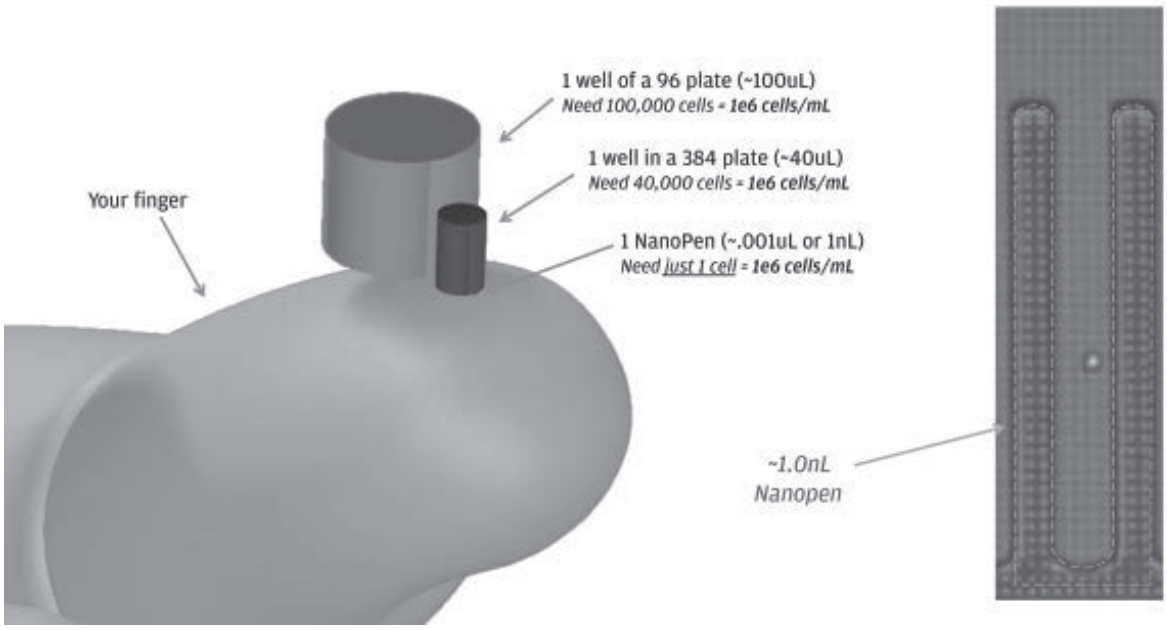
The Berkeley Lights Platform

The Berkeley Lights Platform

We developed the Berkeley Lights Platform to create the most advanced environment for functional testing of single cells and provide customers local access to functional cell biology for developing cell-based products on a global scale. Our platform can deliver live biology, in the form of the best cells for the desired cell-based product. Using our platform, customers perform integrated workflows specific to a field of use to profile and capture relevant single-cell data, throughout the duration of the workflow, on tens of thousands of cells individually, in parallel and within a contained and precisely controlled environment.

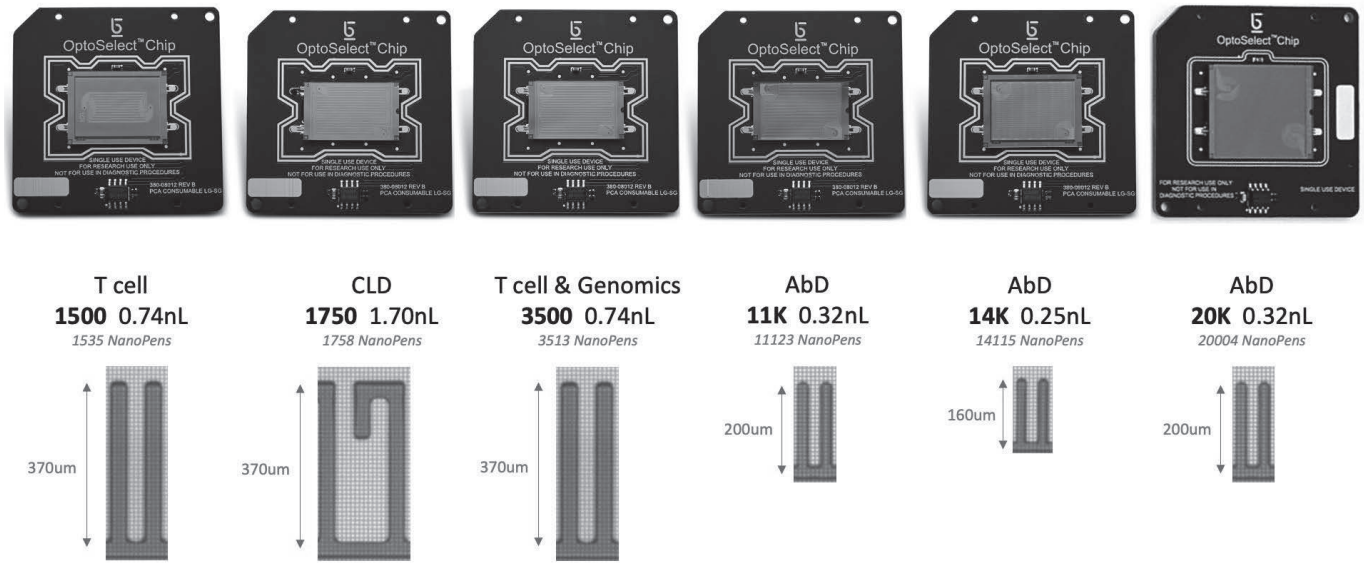
Our platform is a fully integrated, end-to-end solution, comprised of proprietary consumables, including our OptoSelect chips and reagent kits, advanced automation systems and advanced application and workflow software. Our platform leverages our proprietary OptoElectro Positioning (OEP) technology, which provides deterministic positioning of living single cells and other micro-objects using light. We believe our platform delivers a high level of control over, and preservation of, living single cells or other micro-objects throughout the functional characterization process. We also have workflows that can lyse, capture and barcode genetic information from select cells on a single OptoSelect chip, conduct reverse transcription, create cDNA libraries for sequencing and link sequencing results back to the unique cell identifiers.

Our platform also uses our proprietary NanoPen technology. NanoPens are small, roughly 1 nanoliter (or 1/50,000th of a drop of water) sized chambers, with proprietary surface coatings that provide precise and deterministic control of the environment around the cells. Through biomimetic design, our platform provides nutrients to, and removes waste from, each NanoPen to keep the cells in a healthy state while outside of their native environment. These mechanisms enable performance of a large variety of single-cell assays on live biology, including single-cell real-time imaging at high resolution.



OptoSelect chips

Using our OEP technology, we select and move cells and other micro-objects in parallel into NanoPens on our proprietary OptoSelect chips. Within the NanoPen chambers, our platform can precisely control the cell environment, perform a large variety of single-cell assays and real-time image each single cell, providing a predictable analytical window into live single-cell biology. We currently offer six types of OptoSelect chips, with different designs and numbers of NanoPens for various workflows. Our largest commercially available chip has 20,000 pens, and is primarily used for our antibody discovery workflow with plasma cells. OptoSelect chips are single-use consumables and replaced after each workflow.



Reagent kits

We have commercialized a broad range of reagent kits that have been validated in the workflows using our platform. These reagent kits support the on-chip analysis on our advanced automation systems as well as many other upstream and downstream processes.

Our reagent kits have been optimized to support multiple species and cell types including mammalian cells such as B cells, T cells and dendritic cells, and non-mammalian cells including yeast and bacteria.

Advanced automation systems and instruments

We currently offer three advanced automation systems and instruments, Beacon and Lightning, which are designed to run our proprietary workflows, and Culture Station, which allows our customers to execute workflows requiring high volume, multi-day cell culture without breaking the continuity and control provisions of a single program run.

Beacon

Launched in December of 2016, our Beacon system is a fully automated, high throughput system that enables workflows on four OptoSelect chips in parallel, utilizing up to 80,000 NanoPens. Beacon captures brightfield and fluorescence images to track and assay individual cells across multiple points in time to allow deep functional profiling of phenotypic and genotypic information on single cells. Beacon is used by our customers for high throughput applications, including antibody discovery and cell line development. Since its launch, we have focused on continuous improvement efforts in the form of activating additional system-level capabilities and enhancements, in turn, enhancing the value of the system for our customers. We will continue to evolve Beacon to further facilitate distributed decentralized biological processing globally.

Advanced application and workflow software

Our software suite includes tailored software packages that enable customers to design, automate and scale reproducible workflows and collect, aggregate, analyze and report data on each cell in each NanoPen, far beyond what we believe is possible with current manual workflows.

Our workflow and assay library

As of December 31, 2022, we offered twelve commercial workflows, incorporating multiple assays that address different phases of our customers' cell-based product value chains in our target markets. In many of these markets, we are developing additional workflows that can extend use of our platform across our customers' research and development pipelines. A central theme to all of our workflows is that they enable single-cell functional testing as early as possible in our customers' respective value chains, allowing them to focus costly scaling efforts only on the biology that is most likely to yield the desired outcome (manufacturing titers, cell therapy function, etc.). We are also expanding our workflows to enter new cell-based product markets. Workflow development and market expansion are a function of incorporating additional cell types, product specific assays or adapting the four basic workflow modules.

We use our Berkeley Lights BioFoundry, which we believe represents the largest platform capacity globally for functionally characterizing cells, to drive new workflow development and functionally characterize cells. In our BioFoundry, we develop workflows and functional assays across the value chain of our target markets. Leveraging our BioFoundry's capacity, we can also look deep into the immune repertoire to discover difficult-to-find proprietary biological assets, such as antibodies and TCR sequences with high commercial value.

Berkeley Lights Workflows (as of December 31, 2022)

	Antibody Therapeutics	Cell Line Development	Cell Therapy	Synthetic Biology
Commercial Workflows	• Opto® Plasma B Discovery 1.0 • Opto® Plasma B Discovery 2.0 • Opto® Plasma B Discovery 3.0 • Opto® Plasma B Discovery 4.0 • Opto® Viral Neutralization 1.0 • Opto® Memory B Discovery Rabbit • Opto® Memory B Discovery Human (development roadmap)	• Opto® Cell Line Development 1.0 • Opto® Cell Line Development 2.0 • Opto® Cell Line Development 3.0	• Opto® Cell Therapy Development 1.0 • Opto® Cell Therapy Development 2.0 • Opto® Cell Therapy Development 3.0 (in development) • OptoSeq® mRNA Library Kit	
Partnerships & Services		• CLD – Gene Therapy (GEN 1) • CLD – Gene Therapy (GEN 2) (in development) • CLD – Yeast & Bacteria	• Cell Therapy - TCR	• Cell-Free Protein Engineering

Through our platform, customers can now link the deep functional profiling data to each cell's gene expression levels. Alternately, some customers are using our platform to recover the paired heavy and light chains of antibody sequences for B cells that produce viral neutralizing antibodies (linking sequences to neutralization assays performed on our platform for viruses like coronavirus). Others use our platform to capture mRNA to profile gene expression from T cells (linking the genes expressed to the secreted proteins directly measured from those T cells). Customers can also identify which genes are linked to increasing the production of high-value biologics, such as therapeutic antibodies. Such phenotype-to-genotype data is critical to understanding how cells behave, and yet we are aware of no other technology that can link gene expression to cell function with the throughput, precision, and speed of our platform. We expect that customers will be able to use this linked data to improve cellular models which may enable better organism design.

Our Strategy

In the second half of 2022, we announced an updated company-wide strategy, which is centered on the following five key pillars:

1. *Generate positive operating cash flow by early 2025.* We plan to do this by building a growing, profitable, and sustainable business as opposed to pursuing growth at any cost. We intend to accomplish this through revenue acceleration supported by an updated, market-driven product portfolio and pricing strategy, as well as disciplined expense and cash management. The management team took an initial step to reduce operating costs through a global workforce reduction of approximately 12% in July 2022 and approximately 9% during the first quarter of 2023 (see Note 14 to our consolidated financial statements for additional information).

2. *Prioritize Research and Development ("R&D") return on investment through increased focus and rigor on development initiati*ves. For example, we exited certain agreements with limited margin benefit to us and our stated preference for prioritizing higher value projects that support our margin and profitability goals. In addition, during 2022, we validated the unique capability on our platform to select and retrieve high-value stable producer cell lines that will improve the cost and therapeutically relevant yields for manufacturing AAV-based gene therapies, which we believe represents a significant return on investment opportunity in the near term. As such, we intend to dedicate a significant number of our resources towards development of this workflow in 2023.

3. *Deliver consistent commercial execution through a new sales structure and enhance product portfolio and pricing strategy*. We have completed an in-depth analysis of our markets and unmet customer needs in various segments. We believe our technology can provide significant value in high-growth academic research segments, such as gene editing and immune-oncology applications. We have started to form academic collaboration pilot programs to help inform the design of these new applications.

   Beginning in 2023, we intend to launch application-specific models of the Beacon system each year, culminating in the anticipated launch of a low-cost bench top device with segment specific versions in 2025. In 2023, we have launched the Beacon Select and intend to launch the Beacon Quest. We believe broadening our portfolio of platforms will allow us to access a wider array of potential customers in the market with products that are more tailored to their needs and budgets. In addition, we plan on expanding our access programs that offer financing options.

4. *Build a world-class leadership team with a proven track record in profitably scaling life sciences tools companies.* In the first quarter of 2022 we hired a new chief executive officer, and subsequently made other key executive hires. This leadership team is putting in place processes to shift to a performance-driven culture across the business. These changes are critical to our efforts to effectively scale our business and advance our market position through targeted investment and strong execution. Collectively, the new leadership team has the experience needed to build a diverse life sciences tools and services company.

5. *Evaluate merger and acquisition ("M&A") opportunities that will help us accelerate profitable growth and leverage our current cost structure.* We have conducted market research to understand our customers' unmet needs and competitive dynamics. This research is expected to help us formulate data-driven decisions on what markets to expand into and what inorganic options would be complementary to our business and technology. We expect to pursue synergistic M&A options that expand our serviceable addressable market and/or provide leverage to our Selling, general and administrative and R&D expense structure.

   For example, during December 2022, we announced a definitive agreement under which we will acquire IsoPlexis in an all-stock transaction valued at $57.8 million. If the merger closes, we expect the combined company to be renamed PhenomeX, which we believe will be a premier functional cell biology company that provides live cell biology research tools which deliver deep insights into cellular function and new perspectives on phenomes.

We believe by focusing on these five pillars, we can transform Berkeley Lights from a technology platform company to a diverse life sciences tools and services company. We believe the IsoPlexis transaction, if closed, fully supports the five pillars of our strategic plan, including, among other things, allowing us to achieve positive operating cash flow by 2024.

Market opportunity

While our platform is currently utilized primarily in the discovery and development stages of the value chain and marketed as research use only ("RUO"), we believe that the capabilities of our platform will enable us to capture an increasingly greater share of our serviceable addressable market opportunity and the value chain across cell-based product industries, including being incorporated into the commercial manufacturing process. Our current workflows target customers in the antibody therapeutics, cell line development, gene therapies, TCR discoveries and agriculture markets. We believe our serviceable addressable market is approximately $3.1 billion, split roughly equally between our platform and partnership and services opportunities. Our current focus in these areas are antibody discovery, cell line development, immune-oncology, gene editing, AAV stable cell line, TCR discovery and agricultural. Our estimates of our serviceable addressable markets are based on potential customer research and development spending, addressable aspects of potential customers' end product development process, and potential platform usage. We also utilize estimated penetration and placement rates for our platform with potential customers in our target markets and historical patterns for consumables usage.

Commercial

As of December 31, 2022, our customer base was comprised of 96 customers and included several of the largest biopharmaceutical companies in the world, as well as biotechnology companies, leading contract research organizations, synthetic biology companies and academic research institutions. As of December 31, 2022, we employed a commercial team of 101 employees, including 30 with Ph.D. degrees and many with significant industry experience.

Our business model is focused on driving the adoption of the Berkeley Lights Platform and maximizing its use across our customers' value chains. This is achieved by enabling more functional testing of single cells throughout our customers' value chains and by finding opportunities for customers to perform single-cell functional testing earlier in their product development process. We engage with potential customers to identify a significant challenge they are facing and then evaluate which workflows and underlying assays can address their problem. Customers can gain access to our platform via direct purchase, subscription, our service business, or strategic partnership. In many cases we can address customer needs with existing or variants of existing workflows.

Alternatively, we may form strategic partnerships to develop substantially new workflows with our customers to address their needs.

Competition

We face significant competition in the life sciences technology market. We currently compete with both established and early stage life sciences technology companies that design, manufacture and market systems, consumables, reagent kits and software for, among other applications, genomics, single-cell analysis, spatial analysis and immunology, and/or provide services related to the same. 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, or engage a third party that provides a discovery service, rather than implementing our platform, and they may also decide to stop using our platform. Companies providing point solutions in this space include 10x Genomics, HiFiBio Therapeutics, Solentim, Molecular Devices, Cytena, NanoCellect Biomedical, Danaher, Menarini Silicon Biosystems, Miltenyi Biotec, Sphere Fluidics Ltd., Akoya Biosciences, Inc., Cytek Biosciences, Inc., NanoString Technologies, Inc. and Singular Genomics Systems, Inc., among others. In addition, there are many large

established players in the life science 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 the section titled "Risk Factors—Risks related to our business and strategy—The life sciences technology market is highly competitive, and if we cannot compete successfully with our competitors, we may be unable to increase or sustain our revenue, or achieve and sustain profitability."

Manufacturing and supply

We developed the Berkeley Lights Platform to create the most advanced environment for functional testing of single cells and provide customers local access to functional cell biology for developing cell-based products on a global scale. Our platform is a fully integrated, end-to-end solution, comprised of proprietary consumables, including our OptoSelect chips and reagent kits, advanced automation systems and advanced application and workflow software. Our platform leverages our OEP technology, which provides deterministic positioning of live single cells and other micro-objects using light. We believe our platform delivers a high level of control over, and preservation of, live single cells or other micro-objects throughout the functional characterization process.

Our manufacturing strategy relies heavily on third parties. Manufacturing of our systems, certain of our reagent kits and OptoSelect chip components is contracted out to third party contract manufacturers and suppliers located in the United States, Europe and Asia. We perform final assembly of our OptoSelect chips in-house. Our outsourced production strategy is intended to drive cost leverage and scale and avoid the high capital outlays and fixed costs related to constructing and operating a manufacturing facility. Certain suppliers of our components and materials are single source suppliers. For further discussion of the risks relating to our third party suppliers, see the section titled "Risk Factors—Risks related to manufacturing and supply."

Consumables—OptoSelect chips and reagent kits

We obtain all components of our OptoSelect chips from third party suppliers. While some components are sourced from a single supplier, we have qualified, or are qualifying, second sources for several of our critical chip requirements, as well as our reagent kits, and proprietary chip surface coatings. We believe that having dual sources for certain of our components helps reduce the risk of a potential production delay caused by a disruption in the supply of a critical component. We also perform final manufacturing and assembly of our OptoSelect chips at our facilities in Emeryville, California. We also manufacture many of our commercially released reagent kits and when needed, based on capacity or capability needs, we also outsource the manufacturing to third party contract manufacturers.

Advanced automation systems and instruments

We rely heavily on third party contract manufacturers for production and manufacturing of Beacon. Design work, prototyping and pilot manufacturing of our advanced automation systems are performed in-house before outsourcing to the third party contract manufacturers. We currently rely on Korvis LLC ("Korvis") for the

manufacturing of Beacon and Culture Station. For additional information on our supply arrangement with Korvis, see below under "Korvis supply agreement."

Korvis supply agreement

In February of 2015, we entered into a supply agreement with Korvis which was subsequently amended in April of 2019 (collectively, the "Korvis Agreement"). The Korvis Agreement governs the terms and conditions of any purchase orders that we submit to Korvis for the manufacture of Beacon and Culture Station. Under the terms of the Korvis Agreement, Korvis will manufacture our products according to agreed-upon specifications. Korvis is required to maintain minimum manufacturing capacity of a specified number of Beacon systems per month. In addition, we may issue purchase orders in such volumes that require Korvis to maintain at least a specified minimum number of Beacon systems in its finished goods inventory. We are not otherwise obligated to issue a purchase order, and Korvis is only obligated to accept purchase orders for any specified number of products if the purchase order is consistent with a forecast and aligns with Korvis's then-current lead times. The initial term of the Korvis Agreement was 24 months, after which the agreement automatically renews for successive 12-month terms unless we or Korvis provide written notice of intent not to renew at least 90 days' prior to the end of the then-current term.

The Korvis Agreement also includes negotiated provisions relating to, among others, delivery, inspection procedures, warranties, intellectual property rights, indemnification, and confidentiality.

Intellectual property

Protection of our intellectual property is fundamental to the long-term success of our business. We seek to ensure that investments made into the development of our technology are protected by relying on a combination of patent rights, trademarks, copyrights, trade secrets, know-how, license agreements, confidentiality agreements and procedures, non-disclosure agreements with third parties, employee disclosure and invention assignment agreements and other contractual rights.

Our patent strategy is focused on seeking coverage for various elements of our Berkeley Lights Platform, including our OptoSelect chips and reagent kits, advanced automation systems and instruments, including Beacon, Lightning, and Culture Station and advanced application and workflow software. In addition, we file for patent protection on the certain therapeutic and diagnostic products and processes discovered using or derived from the Berkeley Lights Platform.

As of December 31, 2022, our owned patent assets included approximately 63 U.S. patents, 72 pending U.S. patent applications, 6 pending patent cooperation treaty ("PCT"), applications, 404 foreign patents and 330 pending foreign patent applications in various foreign jurisdictions, including Australia, Canada, China, the European Union, Hong Kong, Israel, Japan, South Korea, Singapore and Taiwan. Our owned patent assets include 17 patents and applications that are jointly owned by us and by the Regents of the University of California ("UC Regents"), including 2 U.S. patents, 2 pending U.S. patent applications, 9 foreign patents and 4 foreign patent applications, of which the 2 U.S. patents and the 8 foreign patents are included within the scope of our exclusive licensing arrangement with the UC Regents. As of December 31, 2022, our in-licensed patent assets included 9 U.S. patents, 6 foreign patents, and 1 pending U.S. patent application. Excluding any patent term extension, the currently issued BLI-owned patents are expected to expire between 2033 to 2040. The currently issued in-licensed patents are expected to expire from 2023 to 2033. We do not expect that the expiration or abandonment of any patent in 2023 will materially impact our business, future operations or financial position.

Various of our owned patents and patent applications relate to our advanced automation systems, including our Beacon, Lightning and/or Culture Station systems and our OEP technology, other of our patents and patent applications relate to our advanced application and workflow software, including our Cell Analysis Suite ("CAS") software, our Workflow Runner/Builder software, our Image Analyzer software, and/or our Assay Analyzer software, still other of our owned patents and patent applications relate to our OptoSelect chips, and still other of

our owned patents and patent applications relate to our reagent kits and/or our workflows. Certain of our owned patents and patent applications relate to more than one product group or technology. Our in-licensed patents and patent applications generally relate to micro opto-fluidics. We also have patents related to products or technology that are under development or are on our development roadmap.

We also rely on copyrights, trade secrets, including know-how, unpatented technology and other proprietary information, to strengthen our competitive position. We have determined that certain technologies, such as certain processes, methods and surface coatings, are better kept as trade secrets. To mitigate the chance of trade secret misappropriation, it is our policy to enter into nondisclosure and confidentiality agreements with parties who have access to trade secrets, such as our employees, collaborators, consultants, advisors and other third parties. We also enter into invention or patent assignment agreements with our employees and consultants that obligate them to assign to us any inventions they have developed while working for us.

We also seek to protect our brand through procurement of trademark rights. As of December 31, 2022, we owned twelve registered trademarks in the U.S. and 85 registered trademarks internationally, inclusive of Madrid Protocol applications, as well as three U.S. and 34 international pending trademark applications. Such international jurisdictions in which we own registered trademarks or pending trademark applications include Australia, Canada, China, the European Union, Israel, Japan, South Korea and Singapore. Our registered trademarks and pending trademark applications include trademarks for Berkeley Lights, BLI, NanoPen, OptoSelect, Beacon, Lightning, Deep Opto Profiling, OEP, CAS, Opto, OptoSeq, and our Berkeley Lights logo. In order to supplement protection of our brand, we have also registered several internet domain names. For further discussion of the risks relating to intellectual property, see the section titled "*Risk Factors—Risks related to litigation and our intellectual property.*"

Licenses

UC Regents license agreement

In October of 2011, we entered into a license agreement, which was subsequently amended in March 2016 ("UC Agreement"), with the UC Regents, pursuant to which UC Regents granted us an exclusive (subject to certain non-commercial rights reserved by UC Regents and certain rights retained by the U.S. government, including so-called march-in rights), sublicensable, worldwide license under certain patent rights owned by UC Regents related to optoelectronic tweezer technology to develop, manufacture, use and commercialize products, services and methods that are covered by such patent rights, or the Licensed Products.

We paid UC Regents upfront payments totaling $15,000 in connection with executing the UC Agreement. In addition, we issued an aggregate of 250,992 shares of our common stock, which had an aggregate fair value at the time of issuance of approximately $30,000, to certain persons associated with UC Regents upon the occurrence of a qualifying financing event. Additionally, we must pay UC Regents a sub-single digit percentage royalty on our net sales of Licensed Products that are covered by a valid claim of the licensed patents, subject to an annual minimum royalty payment owed to UC Regents of $10,000. We are also obligated to pay UC Regents a percentage of certain royalty income received from our sublicensees ranging from the low- to mid-teens.

We are obligated to use commercially reasonable efforts to develop, manufacture and commercialize the Licensed Products.

The UC Agreement will continue until the expiration of the last to expire patent or last to be abandoned patent application that is licensed to us, unless terminated earlier in accordance with the terms of the UC Agreement. We may terminate the UC Agreement by providing advance written notice as specified in the UC Agreement. UC Regents may terminate the UC Agreement if we violate or fail to perform any term of the UC Agreement and we fail to cure such violation or failure within 90 days of notice thereof from UC Regents. Additionally, if we challenge the validity or enforceability of any of the licensed patents, UC Regents may remove such patents from the scope of our license.

Government regulations

Our products and operations may be subject to extensive and rigorous regulation by the Food and Drug Administration ("FDA") and other federal, state, or local authorities, as well as foreign regulatory authorities. The FDA regulates, among other things, the research, development, testing, manufacturing, clearance, approval, labeling, storage, recordkeeping, advertising, promotion, marketing, distribution, post-market monitoring and reporting, and import and export of medical devices.

Our products are currently marketed as RUO. RUO products cannot make any claims related to safety, effectiveness or diagnostic utility and they cannot be intended for human clinical diagnostic use. In November 2013, the FDA issued a final guidance on products labeled RUO, which, among other things, reaffirmed that a company may not make any clinical or diagnostic claims about an RUO product. The FDA will also evaluate the totality of the circumstances to determine if the product is intended for diagnostic purposes. 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 that will require clearance or approval prior to commercialization.

Regulatory framework for medical devices in the United States

Pursuant to its authority under the Federal Food, Drug and Cosmetic Act ("FDCA"), the FDA has jurisdiction over medical devices, which are defined to include, among other things, in vitro diagnostic devices ("IVDs"). IVDs that are marketed for RUO are not intended for use in a clinical investigation or for clinical diagnostic use outside an investigation and must be labeled "For Research Use Only. Not for use in diagnostic procedures." Products that are intended for RUO and are properly labeled as RUO are exempt from compliance with the FDA's requirements applicable to medical devices more generally, including the requirements for clearance or approval and compliance with manufacturing requirements known as the Quality System Regulation, or QSR. A product labeled RUO but intended to be used diagnostically may be viewed by the FDA as adulterated and misbranded under the FDCA and is subject to FDA enforcement activities. The FDA may consider the totality of the circumstances surrounding distribution and use of an RUO product, including how the product is marketed, when determining its intended use.

Although we currently market our products as RUO, we may in the future intend for them to be used for clinical or diagnostic purposes, or may develop other different products intended for clinical or diagnostic purposes, such as our in-development CTMS, which would result in the application of a more onerous set of regulatory requirements. Specifically, unless an exemption applies, each new or significantly modified medical device we seek to commercially distribute in the United States will require either a premarket notification to the FDA requesting permission for commercial distribution under Section 510(k) of the FDCA, also referred to as a 510(k) clearance, or approval from the FDA of an application for premarket approval, or PMA. Both the 510(k) clearance and PMA processes can be resource intensive, expensive and lengthy, and require payment of significant user fees.

It is also possible that in the future we develop a therapeutic that would be subject to different but also comprehensive FDA regulatory requirements.

Human capital resources

As of December 31, 2022 we employed a total of 285 individuals, of whom 249 were employed in the United States and Canada, 19 of whom were employed in Asia Pacific and 17 of whom were employed in Europe. As of December 31, 2022, our 285 full-time employees included 76 in research and development, 101 in business development, sales, marketing and support, 45 in manufacturing and operations and 63 in general and administrative functions, of which many hold PhDs in their respective disciplines. None of our employees are represented by a labor union with respect to their employment with us. We consider our relationship with our employees to be good. Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and additional employees. The principal purposes of our equity incentive plans are to attract,

retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards and cash-based performance bonus awards.

Corporate information

We were incorporated in the State of Delaware on April 5, 2011. Our principal executive offices are located at 5858 Horton Street, Suite 320, Emeryville, California 94608, and our telephone number is (510) 858-2855. Our common stock is listed on the Nasdaq Global Select Market under the symbol "BLI."

Available information

Our website is located at https://www.berkeleylights.com, and our investor relations website is located at https://investors.berkeleylights.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. The following filings are available through our investor relations website as soon as reasonably practicable after we file them with, or furnish them to, the SEC: Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and our Definitive Proxy Statement ("Proxy Statement") for our annual meeting of stockholders. These filings are also available for download free of charge through a link on our investor relations website. The SEC also maintains an Internet website at www.sec.gov that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The contents of these websites are not incorporated into this filing. Further, our references to the URLs for these websites are intended to be inactive textual references only.

Item 1A. Risk Factors.

Our business is subject to numerous risks and uncertainties, including those described below, that could materially adversely affect our business, financial condition, results of operations, and the trading price of our common stock. The following risk factors could cause our actual results to differ materially from historical results and those expressed in forward-looking statements made by us or on our behalf in filings with the SEC, press releases, communications with investors, and oral statements. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business.

Risks related to our operating history, business and strategy

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

We have incurred significant losses since our inception. For the years ended December 31, 2022, 2021 and 2020, we incurred net losses of $98.0 million, $71.7 million and $41.6 million, respectively. As of December 31, 2022, we had an accumulated deficit of $361.6 million. We expect that our operating expenses will continue to increase as we grow our business. Since our inception, we have financed our operations primarily from private placements of our convertible preferred stock, the incurrence of indebtedness, the issuance of common stock sold in an initial public offering and to a lesser extent, revenue derived from our Berkeley Lights Platform. We have devoted substantially all of our resources to the development and commercialization of our Berkeley Lights Platform and to research and development activities related to advancing and expanding our scientific and technological capabilities. 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.

Our success depends on the success of our Berkeley Lights Platform and market acceptance of functional cell biology. Our Berkeley Lights Platform and functional cell biology may not achieve or maintain significant commercial market acceptance.

Our commercial success depends on our ability to continue to successfully market and sell our Berkeley Lights Platform and offer services to customers and partners. Our ability to achieve and maintain commercial market acceptance of our Berkeley Lights Platform will depend on a number of factors, many beyond our control, including:

- our ability to increase awareness of the capabilities of our technology and solutions;
- our customers' willingness to adopt new technologies and workflows;
- whether our platform reliably provides advantages over legacy and other alternative technologies and is perceived by customers to be cost-effective;
- our ability to execute on our strategy to provide multiple channels to access our Berkeley Lights Platform;
- the rate of adoption of our platform and solutions by biopharmaceutical companies, academic institutions and others;
- prices we charge for a direct purchase of, or other access to, our platform;
- the relative reliability and robustness of our platform as a whole and the components of our platform, including Beacon;
- our ability to effectively train and educate our customers on the proper usage of our platforms, instruments and workflows;
- our ability to develop new workflows and solutions for customers;
- our ability to grow our service business;
- if competitors develop and commercialize a platform that performs functional testing of cells at scale;
- the timing and scope of any approval that may be required by the FDA, for our next generation products and/or solutions;
- the impact of our investments in product innovation and commercial growth;
- negative publicity regarding our or our competitors' products resulting from defects or errors; and
- our ability to further validate our technology through research and accompanying publications.

We cannot assure you that we will be successful in addressing each of these factors or other factors that might affect the market acceptance of our products. If we are unsuccessful in achieving and maintaining market acceptance of our products, our business, financial condition, results of operations and prospects could be adversely affected.

Historically, our revenue has been primarily generated from direct platform sales, largely driven by our Beacon, which requires a substantial sales cycle and is prone to quarterly fluctuations in revenue.

We made our first commercial sale of Beacon in the United States in December 2016. Direct platform sales of Beacon and Lightning together accounted for 46%, 54% and 69%, of our revenue for the years ended December 31, 2022, 2021 and 2020, respectively. While we also generate revenues related to strategic partnerships and services and recurring revenue, we still expect that, for at least the foreseeable future, direct capital sales of our Berkeley Lights Platform will continue to account for a substantial portion of our revenue while we grow our service business and develop alternative access channels to our platform and functional cell biology. The sales cycle for capital equipment is slow and can take multiple quarters to complete. In addition, many purchases of our platform involve significant customization of the terms of the transaction, which requires additional time and effort to negotiate and complete the sale. In addition, several components of our systems require an order lead time of six to ten months.

Furthermore, in certain situations we have entered into feasibility study arrangements in advance of a direct sale in order to provide a customer with additional information to make the purchase decision. In such arrangements, workflows may be customized for or by customers, which can be time consuming. As a result of this lengthy and unpredictable sales cycle, until such time as we establish a significant recurring revenue channel, we will be prone to quarterly fluctuations in our revenue as capital sales of our Beacon systems will continue to comprise a

significant component of our revenue. We may not be successful in increasing the proportion of revenue we derive from non-direct capital sales channels, such as our service offerings, in which case any adverse event affecting our direct sales of our Beacon systems for a significant portion of our revenue and our revenue will continue to fluctuate accordingly.

It may be difficult for us to successfully implement our strategies for growth.

Our success will depend on our ability to grow market penetration in existing markets and our ability to identify new applications for our technologies to capture a greater share of the cell-based product value chain. 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 technology and solutions, as well as educating and training new and existing customers on the appropriate usage of the Berkeley Lights Platform, including our systems, instruments and its workflows. Future revenue growth will also depend on our ability to:

- properly identify and anticipate the needs of our customers in existing and new markets beyond the antibody therapeutics, cell therapy and synthetic biology markets;
- develop and introduce new products responsive to such needs; and
- grow our non-direct platform sales business models.

If we are unable to drive new customer conversions to functional cell biology, expand adoption of functional cell biology into new industries and markets, expand the application of workflows across our customers' value chains, increase the usage and value of our workflows to our customers or develop and monetize proprietary biological assets, then our business, financial condition, results of operations and prospects could be adversely affected.

In 2023, we intend to expand our service engagements, but it is possible that revenue from this business will not grow as anticipated or at all. Even if we successfully grow our business, it would place a significant strain on our existing management and resources.

We may not successfully implement our strategy to provide customers access to our platform and functional cell biology through alternative non-direct capital sales channels, including our subscription, partnering and services offerings.

Our ability to execute our growth strategy depends upon our ability to increase the adoption of the Berkeley Lights Platform. Historically, access to our platform was only available through direct capital sales of our systems. We have only recently implemented a strategy providing customers access to our platform through alternative channels, including through subscriptions, strategic partnerships or contracts for our services. Our ability to execute on these alternative access channels is unproven. We cannot assure you that we will be successful in developing these alternative access channels nor that any of them will gain market acceptance. Our failure to execute on this strategy will cause us to remain primarily dependent on lengthy capital equipment sales and our revenue will continue to fluctuate accordingly.

Our revenue under our customer sales engagements, program and service agreements and strategic partnerships and services for any particular period can be difficult to forecast.

Because of the complexities and long sales cycles inherent in our business, including, in particular, certain customer feasibility study agreements and collaboration and development agreements, it is difficult to predict the timing of a customer's purchase of our system and the performance and completion of milestones under our customer and collaboration agreements. As a result, our revenue for any particular period can be difficult to forecast, especially in light of the challenging and inconsistent global macroeconomic environment and related market uncertainty. Our revenue may grow at a slower rate than in past periods or even decline on a year-over-year basis, as it did during

2022. For example, in the third quarter of 2022, our active collaboration agreement with Ginkgo Bioworks Holdings Inc. ("Ginkgo") wound down prior to the anticipated contract end date, as the negotiations regarding potential changes to such agreement failed. In some cases, the timing and likelihood of payments to us under agreements with customers is dependent on our customers' successful utilization of our products and workflows, which is outside of our control. In the near term, we expect revenue from our strategic partnerships and services engagements to decline; more generally, our operating results could vary materially from quarter to quarter from our forecasts due to the foregoing uncertainties.

We may face risks in connection with past, existing and future collaborations with respect to the development, manufacture and commercialization of our products and workflows.

We face a number of risks in connection with our past, current and future collaborations and partnerships. Our partnerships and collaboration agreements are subject to termination under various circumstances. For example, in the third quarter of 2022, our active collaboration agreement with Ginkgo wound down prior to the anticipated contract end date, as negotiations regarding potential changes to such agreement failed. Our partners and collaborators may change the focus of their development efforts or may have insufficient resources to effectively assist in the development of our products or workflows. Any future partnerships or collaboration agreements may have the effect of limiting the areas of research and development that we may pursue, either alone or in collaboration with third parties. Further, disagreements with partners or collaborators might cause delays, might result in litigation or arbitration, or might result in termination of the research, development or commercialization of our products and workflows. Any such disagreements would divert management attention and resources and be time-consuming and costly.

If we cannot maintain our current relationships with customers, fail to sustain recurring sources of revenue with our existing customers, or if we fail to enter into new relationships, our future operating results would be adversely affected as a general matter.

In the years ended December 31, 2022, 2021 and 2020, revenue from our top five customers accounted for 44%, 52% and 33% of our total revenue, respectively, of which 13%, 4% and 8%, respectively, was from recurring revenue. The revenue attributable to these customers may fluctuate in the future, which could have an adverse effect on our business financial condition, results of operations and prospects. For example, we rely on field of use or workflow license fees as a source of recurring revenue from certain of our customers. These field of use license fees are paid annually by our customers in consideration of continued use of workflows in specified fields of use in accordance with the terms of the agreement with the customer. However, our ability to monitor the specific fields of use and enforce the payment of these corresponding fees is limited. Additionally, customers may use our platform or workflows in ways that violate the contractual field of use and we may not be able to access additional revenue for these expanded uses. In addition, the termination of these relationships could result in a temporary or permanent loss of revenue.

Our future success depends on our ability to maintain these relationships, to increase our penetration among these existing customers and to establish new relationships. We engage in conversations with other companies and institutions regarding potential commercial opportunities on an ongoing basis, which can be time-consuming. There is no assurance that any of these conversations will result in a commercial agreement, or if an agreement is reached, that the resulting relationship will be successful. Additionally, our field of use licensing model may lengthen the negotiations of, or prevent the successful conclusion of, commercial agreements with potential customers due to such potential customer's concerns with paying such recurring revenue. Speculation in the industry about our existing or potential commercial relationships can be a catalyst for adverse speculation about us, our products and our technology, which can adversely affect our reputation and our business.

Fluctuations in the research and development budgets of our customers could have a significant effect on the demand for our products. Our customers include biopharmaceutical companies and research institutions. Several factors, including public policy spending priorities, the ramifications of the ongoing global COVID-19 pandemic,

available resources and product and economic cycles, have a significant effect on the capital spending policies of these entities, many of which are outside of our control.

We cannot assure investors that we will be able to further penetrate our existing markets or that our products will gain adequate market acceptance. Any failure to increase penetration in our existing markets or failure to enter into new relationships would adversely affect our business, financial condition, results of operations and prospects.

Our limited operating history make it difficult to evaluate our future prospects and the risks and challenges we may encounter.

We completed our first commercial platform sale in December 2016 and have experienced fluctuations in revenue growth in recent periods. Revenue decreased 8% to $78.6 million for the year ended December 31, 2022 as compared to $85.4 million for the year ended December 31, 2021. Revenue increased 33% to $85.4 million for the year ended December 31, 2021 as compared to $64.3 million for the year ended December 31, 2020. In addition, we operate in highly competitive markets characterized by rapid technological advances and our business has, and we expect it to continue, to evolve over time to remain competitive. Our limited operating history, evolving business and fluctuations in revenue growth make it difficult to evaluate our future prospects and the risks and challenges we may encounter, 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 "Risk Factors" section, our business, financial condition, results of operations and prospects could be adversely affected. We have encountered in the past, and will encounter in the future, risks and uncertainties frequently experienced by growing companies with limited operating histories in 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 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.

Our operating results have fluctuated significantly in the past and 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.

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 and solutions, which may vary significantly;
- the length of time of the sales cycle for purchases of our systems, including lead time needed to develop custom workflows or to manufacture component parts;
- our ability to successfully implement alternative non-capital purchase channels, including subscription, partnership and services offerings and the design of any such alternatives;
- the ramifications of the ongoing global COVID-19 pandemic on our customers, suppliers and partners;
- the timing and cost of, and level of investment in, research, development, regulatory approval and commercialization activities relating to our products, which may change from time to time;
- the mix of our systems sold and the geographies in which they are sold period to period;
- the start and completion of projects in which our development services are utilized;
- the relative reliability and robustness of our platform, including our systems;
- 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, including costs related to our intellectual property litigation with AbCellera Biologics Inc. ("AbCellera"), The

University of British Columbia ("UBC"), and Lineage and the outcome of this and any other future patent litigation we may be involved in, and in engaging in United States Patent and Trademark Office ("USPTO") *or* other jurisdictions' patent office proceedings;

- expenditures, including costs and attorneys' fees, related to the shareholder class action litigation defense, and the outcome of the shareholder class action litigation and any other securities-related litigation we may be involved in;
- changes in governmental regulations or in the status of our regulatory approvals or applications;
- 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.

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

We provide a thirteen-month assurance-type warranty, generally beginning on the shipment date, on our systems, instruments and chip consumables. 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 could result in future costs in excess of such estimates, or alternatively, improved quality and reliability in our products and consumables could result in actual expenses that are below those currently estimated. As of December 31, 2022, we had accrued expenses of $0.7 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.

We generally recognize revenue from extended warranty and service contracts over the contract term, and changes in sales of such contracts may not be immediately reflected in our operating results.

We offer our customers the option to purchase extended warranty and service programs for regular system maintenance and system optimization on a fixed fee basis. We generally recognize revenue from our extended warranty and service contracts ratably over the contract term, which is typically twelve months, which in some cases can be subject to an early termination right. Revenue from our extended warranty and service contracts accounted for 42%, 36% and 34% of our recurring revenue for the years ended December 31, 2022, 2021 and 2020, respectively. A portion of the revenue we report in each quarter is derived from the recognition of deferred revenue relating to extended warranty and service contracts entered into during previous quarters.

Consequently, a decline in new or renewed extended warranty and service contracts by our customers in any one quarter may not be immediately reflected in our revenue for that quarter. Such a decline, however, will negatively affect our revenue in future quarters. Accordingly, the effect of significant downturns in sales and market acceptance of our services and potential changes in our rate of renewals may not be fully reflected in our operating results until future periods.

We must develop new products and workflows, adapt to rigid and significant technological change and respond to introductions of new products by competitors to remain competitive, but we may be unable to develop or commercialize products and workflows successfully or at all.

We sell our products in industries that are characterized by significant enhancements and evolving industry standards. As a result, our customers' needs are rapidly evolving. If we do not appropriately innovate and invest in new technologies, our offerings may become less desirable in the markets we serve, and our customers could move to new technologies offered by our competitors or make products themselves. Though we believe customers in our markets display a significant amount of loyalty to their supplier of a particular product, we also believe that because of the significant initial time investment required by many of our customers to reach a purchasing decision for a new product, it may be difficult to regain that customer once the customer purchases a product from a competitor. Competitors may also commercialize competing products faster than we are able to develop our own new products and workflows.

We focus significant efforts and resources on the development and identification of new technologies, products and markets to further broaden our offerings. For example, during the year ended December 31, 2022, we launched several new workflows and assays, including Opto Cell Line Development 3.0 and Opto Memory B Discovery Rabbit. We intend to launch additional new products and new versions of existing products in the next six to twelve months. However, we may not be able to complete development and commercialize new products and workflows on a timely basis, or at all.

Products and workflows from our research and development programs take time and considerable resources to develop, and may include improvements or changes to our systems, software and consumables. There can be no assurance that our programs 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 studies and potentially clinical trials;
- further develop and scale our laboratory, engineering and manufacturing processes to accommodate different products and workflows;
- further develop and scale our infrastructure to be able to analyze increasingly large amounts of data; and
- utilize data and analytical insights generated from running workflows on our current systems in our research and development programs in order to advance these programs.

This process involves a high degree of risk that our new products and workflows may not successfully gain market acceptance. The complexity of our products and workflows and the amount of lead time required to deliver products and workflows to our customers have caused in the past, and may cause in the future, delays in releasing new products and workflows. In addition, we have experienced in the past, and may experience in the future, challenges with respect to the reliability of our systems and workflow yields. If there are delays in delivering our products or workflows to our customers or if our products or workflows fail to substantially shorten the amount of time necessary to perform certain research activities as compared to the use of legacy and other alternative technologies, or fail to generate reliable results for our customers, customers may not adopt our new products and workflows.

The training required by the complexities of our products and workflows may also deter some customers from adopting our products or workflows. The training is expensive and time-consuming, in some instances, taking up to two weeks to complete. Any misuse of our products or workflows, including as a result of inadequate training, could cause our products or workflows not to perform as expected or to fail to demonstrate their process advantages.

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. The expenses or losses associated with unsuccessful product development or launch activities or lack or market acceptance or our new products could adversely affect our business, financial condition, results of operations and prospects. For example, in the years ended December 31,

2021 and December 31, 2022, our revenues from sales of the Lightning system and from the Culture Station instrument were lower than expected.

The Berkeley Lights Platform is comprised of OptoSelect chips and reagent kits, advanced automation systems and advanced application and workflow software, which may contain undetected errors or defects and may not meet the expectations of our customers, which means our business, financial condition, results of operations and prospects could suffer.

Our platform is comprised of OptoSelect chips and reagent kits, advanced automation systems and advanced application and workflow software, and may contain undetected errors or defects. Disruptions or other performance problems with our platform or its components, including our proprietary workflows or those designed by our customers, may adversely impact our customers' research or business, harm our reputation and result in reduced revenue or a significant cost increase associated with repairs or replacements. If that occurs, the attention of our key personnel could be diverted or other significant customer relations problems may arise.

We may also be subject to legal claims arising from such defects or errors, including warranty or breach of contract claims for damages. Although we maintain general liability insurance, any claims against us could damage our reputation or cause current customers to terminate existing agreements and potential partners to seek other partners. In addition, this coverage may not be sufficient to cover liabilities resulting from such claims or our insurers may disclaim coverage. Our liability insurance also may not continue to be available to us on reasonable terms, in sufficient amounts, or at all. Our success depends on, among other things, the market's confidence that the Berkeley Lights Platform is capable of substantially shortening the amount of time necessary to perform certain research activities as compared to the use of legacy and other alternative technologies, and enables more efficient or improved pharmaceutical and biotechnology product development. We believe that pharmaceutical and biotechnology companies are likely to be particularly sensitive to product defects and errors in the use of our platform, including if our platform fails to deliver meaningful acceleration of certain research timelines accompanied by results at least as good as the results generated using legacy or other alternative technologies. There can be no guarantee that our platform will meet the expectations of pharmaceutical and biotechnology companies.

If we are unable to support demand for the Berkeley Lights Platform, and for our future product offerings, including ensuring that we have adequate capacity to meet increased demand, or if we are unable to successfully manage our anticipated growth, our business could suffer.

As the number of customers accessing the Berkeley Lights Platform grows and our volume of installed systems increases, we will need to continue to increase our capacity for customer service and support, for billing and general process improvements, and expand our internal quality assurance programs. We will also need to purchase additional equipment, some of which can take several months or more to procure, set up and validate, and increase our personnel levels to meet increased demand. We cannot be certain 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 laboratory facility, 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.

Even if we are able to successfully scale our infrastructure and operations, we cannot assure you that demand for our products and services will increase at levels consistent with the growth of our infrastructure. If we fail to generate demand commensurate with this growth or if we fail to scale our infrastructure sufficiently in advance of

demand to successfully meet such demand, our business, prospects, financial condition and results of operations could be adversely affected.

Our future capital needs are uncertain and we may need to raise additional capital to fund our existing operations, improve our platform or develop and commercialize new products, workflows, consumables and reagent kits, or expand our operations.

Based on our current business plan, we believe our current cash and cash equivalents and anticipated cash flow from operations, will be sufficient to meet our anticipated cash requirements for at least the 12 months from the date of this Annual Report. If our available cash resources anticipated cash flow from operations are insufficient to satisfy our liquidity requirements, including because of lower demand for our products or the realization of other risks described in this Annual Report, we may be required to raise additional capital prior to such time through issuances of equity or convertible debt securities, enter into a credit facility or another form of third-party funding or seek other debt financing.

Furthermore, even if we believe that we have sufficient funds for current or future operating plans, 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 Berkeley Lights Platform and address competitive developments;
- fund development and marketing efforts of products from our programs or any other future products;
- expand our technologies into additional markets;
- acquire, license or invest in technologies;
- 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 revenue growth;
- the cost of expanding our operations, including our biology and engineering laboratories and clean-room, 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, establishing adoption of our Berkeley Lights Platform;
- 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, including costs related to our intellectual property litigation with AbCellera, UBC, and Lineage and the outcome of this and any other future patent litigation we may be involved in, and in engaging in, USPTO and other jurisdictions' patent office proceedings;
- costs related to domestic and international expansion; and
- the potential cost of and delays in product development as a result of any regulatory oversight applicable to our products.

To the extent that we raise additional capital through the sale of equity or convertible debt securities, our stockholders may experience dilution. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders. 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 issuing debt securities, those debt securities would have rights, preferences and privileges senior to those of holders of our

common stock. In addition, future debt financing, if available, may involve additional covenants restricting our operations of our ability to incur additional debt. If we raise funds through strategic transactions with third parties such as 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.

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 prospect.

The sizes of the markets and forecasts of market growth for our Berkeley Lights Platform and other of our key performance indicators are based on a number of complex assumptions and estimates, and may be inaccurate.

We estimate annual serviceable addressable markets and forecasts of market growth for our Berkeley Lights Platform and for our technologies under development. We have also developed a standard set of key performance indicators in order to enable us to assess the performance of our business in and across multiple markets, and to forecast future revenue. These estimates, forecasts and key performance indicators 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 workflows. While we believe our assumptions and the data underlying our estimates and key performance indicators 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 and indicators. As a result, our estimates of the annual serviceable addressable market and our forecasts of market growth and future revenue for our current or future products may prove to be incorrect, and our key performance indicators may not reflect our actual performance. If the annual serviceable addressable market or the potential market growth for our platform is smaller than we have estimated or if the key performance indicators we utilize to forecast revenue are inaccurate, it may impair our sales growth and have an adverse impact on our business, financial condition, results of operations and prospects.

The life sciences technology market is highly competitive, and if we cannot compete successfully with our competitors, we may be unable to increase or sustain our revenue, or achieve and sustain profitability.

We face significant competition in the life sciences technology market. We currently compete with both established and early-stage life sciences technology companies both in the United States and internationally that design, manufacture and market systems, consumables, reagent kits and software for, among other applications, genomics, single-cell analysis, spatial analysis and immunology, and/or provide services related to the same. Growing understanding of the importance of single-cell information is leading to more companies offering services related to collecting such information. Potential competitors within our space include Danaher, Menarini Silicon Biosystems, Miltenyi Biotec and Sphere Fluidics Ltd., among others. In addition, our customers may also elect to develop their workflows on legacy systems rather than our platform and may decide to stop using our platform.

Our competitors and potential competitors may enjoy a number of competitive advantages over us, including:

- longer operating histories;
- larger customer bases;
- greater brand recognition and market penetration;
- greater financial resources;
- greater technological and research and development resources;
- better system reliability and robustness;
- greater selling and marketing capabilities; 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 against these organizations. Additionally, technologies developed by our competitors may render our potential products uneconomical or obsolete, and we may not be successful in marketing our products against the products of our competitors.

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. Any failure to compete effectively could materially and adversely affect our business, financial condition and operating results. For additional information regarding our competition, see "Item 1. Business-Competition."

We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy.

Our growth between 2017 and 2022 has required significant time and attention from our management, and placed strains on our operational and manufacturing systems and processes, financial systems and internal controls and other aspects of our business. We expect to continue to increase headcount and to hire more specialized personnel in the future as we grow our business. We will need to continue to hire, train and manage additional qualified scientists, engineers, laboratory personnel, client and account services personnel and sales and marketing staff and improve and maintain our technology to properly manage our growth. We may also need to hire, train and manage individuals with expertise that is separate, supplemental or different from expertise that we currently have, and accordingly we may not be successful in hiring, training and managing such individuals. If our new hires perform poorly, if we are unsuccessful in hiring, training, managing and integrating these new employees, or if we are not successful in retaining our existing employees, our business may be harmed.

Developing and launching new products and innovating and improving our existing products have required us to hire and retain additional scientific, engineering, sales and marketing, software, manufacturing, distribution and quality assurance personnel. As a result, we have experienced rapid headcount growth from 107 employees as of March 31, 2017 to 285 employees as of December 31, 2022. As we have grown, our employees have become more geographically dispersed. We currently serve customers in North America, Asia Pacific and Europe and plan to continue to expand to new international jurisdictions as part of our growth strategy, which will lead to increased dispersion of our employees, including sales employees and employees who are in our service and support groups. Moreover, we expect that we will need to hire additional accounting, finance and other personnel in connection with our efforts to comply with the requirements of being, a public company. As a public company, our management and other personnel will need to devote a substantial amount of time towards maintaining compliance with these requirements. We may face challenges integrating, developing and motivating our rapidly growing and increasingly dispersed employee base.

We may not be able to maintain the quality, reliability or robustness of our platform, or the expected turnaround times of our services and support, or to satisfy customer demand as it grows. Our ability to manage our growth properly will require us to continue to improve our operational, financial and management controls, as well as our reporting systems and procedures. To effectively manage our growth, we must continue to improve our operational and manufacturing systems and processes, our financial systems and internal controls and other aspects of our business and continue to effectively expand, train and manage our personnel. The time and resources required to improve our existing systems and procedures, implement new systems and procedures and to adequately staff such existing and new systems and procedures is uncertain, and failure to complete this in a timely and efficient manner could adversely affect our operations and negatively impact our business and financial results.

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

We depend on information technology and telecommunications systems for the efficient functioning of our business, including our laboratory information management system, our computational biology system, our software suite, including our CAS, our knowledge management system, our customer reporting, our workflows and our platform, comprising our OptoSelect chips and reagent kits, advanced automation systems, and advanced application and workflow software. 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. For example, in 2019, we implemented a new enterprise resource planning system, and in 2021, we implemented a new customer relationship management system. These implementations were expensive and required a significant effort in terms of both time and effort. In addition to the aforementioned business systems, we intend to extend the capabilities of both our preventative and detective security controls by augmenting the monitoring and alerting functions, the network design and the automatic countermeasure operations of our technical systems. 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 a material adverse effect on our business and our reputation, and we may be unable to regain or repair our reputation in the future.

We have limited experience in marketing and sales, and if we are unable to expand our marketing and sales organization to adequately address our customers' needs, our business may be adversely affected.

We have limited experience in marketing and selling our 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 within the pharmaceutical and biotechnology industries is intense. We may not be able to attract and retain personnel or be able 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 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 commercialize our products and to compete effectively will depend, in part, on our ability to manage this potential future growth effectively, without compromising quality.

We rely on distributors for the sale of our products in certain countries outside of the United States, in some cases, in addition to direct sales in such countries. We exert limited control over these distributors under our agreements with them, and if their sales and marketing efforts for our products in the 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 platform 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. Furthermore, sales practices utilized by any such distribution parties that are locally acceptable may not comply with sales practices standards required under U.S. 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 significant market acceptance for our products outside the United States, which would materially and adversely impact our business, financial condition, results of operations and prospects.

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

As part of our business strategy, we 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. For example, on December 21, 2022, we announced a definitive agreement under which we will acquire IsoPlexis in an all-stock transaction valued at $57.8 million. We cannot assure you that any acquisition agreements we may enter into, including the agreement pursuant to which we will acquire IsoPlexis, will result in an acquisition. In addition, we cannot assure you that any acquisitions we complete will be successful as acquisitions can be unsuccessful for a number of reasons, many being beyond our control, including the following:

- We may incur significant expenses and devote significant management time to the acquisition and we may be unable to consummate the acquisition on acceptable terms;
- The integration of any acquisition with our existing business may be difficult and, if we are not able to integrate the business successfully, we may not only be unable to operate the business profitably, but management may be unable to devote the necessary time to the development of our existing business;
- The key employees who operated the acquired business successfully prior to the acquisition may not be happy working for us and may resign, thus leaving the business without the necessary continuity of management;
- Even if the business is successful, our senior executive officers may need to devote significant time to the acquired business, which may distract them from their other management activities;
- If the business does not operate as we expect, we may incur an impairment charge based on the value of the assets acquired;
- To the extent that an acquired company operates at a loss prior to our acquisition, we may not be able to develop profitable operations following the acquisition;
- The acquired company may have liabilities or obligations which were not disclosed to us, or the acquired assets, including any intellectual property, may not have the value we anticipated;
- The assets, including intellectual property, of the acquired company may not have the value that we anticipated;
- We may require significant capital both to acquire and to operate the business, and the capital requirements of the business may be greater than we anticipated. Our failure to obtain funds on reasonable terms may impair the value of the acquisition;
- The acquired company may not operate at the revenue level or with the gross margin shown in the financial statements or projections;
- Patents may not be granted for patent applications which the acquired company filed or patents may be successfully challenged;
- There may be conflicts in management styles that prevent us from integrating the acquired company with us;
- The former equity owners or officers may compete in violation of their non-competition covenants or the non-competition covenants may be held to be unenforceable;
- The business of the acquired company may have problems of which management was unaware and which do not become evident until after the acquisition and we may require significant funding to remedy the problem;
- The indemnification obligations of the seller under the purchase agreement, if any, may be inadequate to compensate us for any loss, damage or expense which we may sustain, including undisclosed claims or liabilities;

- To the extent that the acquired company is dependent upon its management to maintain relationships with existing customers, we may have difficulty in retaining the business of these customers if there is a change in management;
- Government agencies may seek damages after we make the acquisition for conduct which occurred prior to the acquisition, and we may not have adequate recourse against the seller.

For example, if the IsoPlexis Acquisition is closed, we anticipate that we will use significant capital and incur operating losses in the near term to operate the combined company, and we may not achieve the anticipated benefits of the IsoPlexis Acquisition on our anticipated timeframe or at all and our revenue, expenses, operating results, financial condition and stock price could be materially adversely affected. If we are unable to successfully complete any acquisitions, including the pending acquisition of IsoPlexis, or integrate an acquired business successfully and in a timely manner, for the above reasons, our business may be significantly adversely impacted.

Furthermore, we have little 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.

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.

The failure to complete our acquisition of IsoPlexis may adversely affect our business and our stock price.

Consummation of the IsoPlexis Acquisition is subject to the satisfaction or waiver of customary closing conditions, including (i) the expiration or termination of the waiting period under the Hart-Scott-Rodino Antitrust Improvement Act of 1976 and clearance under the antitrust laws of the European Union and certain other jurisdictions, (ii) the receipt by IsoPlexis of a tax opinion regarding the U.S. federal income tax treatment of certain aspects of the IsoPlexis Acquisition, (iii) the absence of certain orders or laws preventing consummation of the IsoPlexis Acquisition, (iv) authorization for listing additional shares of our common stock on Nasdaq, and (v) the absence of a material adverse effect with respect to either us or IsoPlexis. There can be no assurance that these or other closing conditions will be satisfied in a timely manner or at all. Any delay in completing the acquisition could cause us not to realize some or all of the anticipated benefits when expected, if at all. If the IsoPlexis Acquisition is not completed, our stock price could decline to the extent it reflects an assumption that we will complete the acquisition. Furthermore, if the IsoPlexis Acquisition is not completed, we may suffer other consequences that could adversely affect our business, results of operations and stock price, including incurring significant acquisition costs that we would be unable to recover, negative publicity and a negative impression of us in the investment community. Additionally, under certain specified circumstances, including the termination by either us or IsoPlexis because certain required regulatory clearances are not obtained, upon termination we would be required to pay IsoPlexis a termination fee of $2.3 million.

Our loan and security 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 May 23, 2018, we entered into a loan and security agreement ("Loan Agreement") with East West Bank ("EWB") pursuant to which the Lender agreed to provide us a $20.0 million term loan facility ("Term Loan"). The full amount of the Term Loan was funded on May 23, 2018. On June 30, 2021 we entered into an amended and restated loan and security agreement ("Amended Loan Agreement"), which was used to refinance the Term Loan outstanding under the Loan Agreement. The maturity date of the Term Loan as amended by the Amended Loan Agreement ("Amended Term Loan") is June 30, 2025. Until we have repaid such indebtedness the Amended Loan Agreement subjects us to various customary covenants, including requirements as to financial reporting, liquidity

ratios and insurance and restrictions on our ability to dispose of our business or property, to change our line of business, to liquidate or dissolve, to enter into any change in control transaction, to merge or consolidate with any other entity or to acquire all or substantially all the capital stock or property of another entity, to incur additional indebtedness, to incur liens on our property, to pay any dividends or make other distributions on capital stock other than dividends payable solely in capital stock, to redeem capital stock, to enter into in-bound licensing agreements, to engage in transactions with affiliates, and to encumber our intellectual property. Our business may be adversely affected by these restrictions on our ability to operate our business.

We are permitted to make interest only payments on the Amended Term Loan through June 2023, which can be extended up to June 2024 based on the achievement of certain liquidity measures, at which time amortization begins. However, we may be required to repay the outstanding indebtedness under the Amended Term Loan if an event of default occurs under the Amended Loan Agreement. An event of default will occur if, among other things, we fail to make required payments under the Amended Term Loan Agreement; we breach any of our covenants under the Amended Term Loan Agreement, subject to specified cure periods with respect to certain breaches; the East West Bank determines that a material adverse change (as defined in the Amended Loan 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 contracts with third parties which would permit the third party to accelerate the maturity of such indebtedness or that could have a material adverse change on us. 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 such a case, 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. East West Bank could also exercise its rights as secured lender to take possession of and to dispose of the collateral securing the Amended Term Loan, which collateral includes substantially all of our property (excluding intellectual property, which is subject to a negative pledge). Our business, financial condition, results of operations and prospects could be materially adversely affected as a result of any of these events.

Our products could become subject to more onerous regulation by the FDA or other regulatory agencies in the future, which could increase our costs and delay or prevent commercialization of our products, thereby materially and adversely affecting our business, financial condition, results of operations and prospects.

We make our platform, including our OptoSelect chips and reagent kits, advanced automation systems, and advanced application and workflow software available to customers as RUO products. RUO products are regulated by the FDA as medical devices, and include in vitro diagnostic products in the laboratory research phase of development that are being shipped or delivered for an investigation that is not subject to the FDA's investigational device exemption requirements. Although medical devices are subject to stringent FDA oversight, products that are intended for RUO and are labeled as RUO are exempt from compliance with most FDA requirements, including premarket clearance or approval, manufacturing requirements, and others. A product labeled RUO but which is actually intended for clinical diagnostic use may be viewed by the FDA as adulterated and misbranded under the FDCA, and subject to FDA enforcement action. The FDA has indicated that when determining the intended use of a product labeled RUO, the FDA will consider the totality of the circumstances surrounding distribution and use of the product, including how the product is marketed and to whom. The FDA could disagree with our assessment that our products are properly marketed as RUOs, or could conclude that products labeled as RUO are actually intended for clinical diagnostic use, and could take enforcement action against us, including requiring us to stop distribution of our products until we are in compliance with applicable regulations, which would reduce our revenue, increase our costs and adversely affect our business, prospects, results of operations and financial condition. In the event that the FDA requires us to obtain marketing authorization of our RUO products in the future, there can be no assurance that the FDA will grant any clearance or approval requested by us in a timely manner, or at all.

We may also in the future decide to develop medical device products that we expect to be intended for clinical or diagnostic uses. In the United States, before we can market a new medical device, or a new use of, new claim for or significant modification to an existing product, we must first receive either clearance under Section 510(k) of the FDCA, or approval of a premarket approval application from the FDA, unless an exemption applies. 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 pre-clinical and clinical testing, require changes to products or result in limitations on the indicated uses of products. There can be no assurance that we will 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 will not be subsequently withdrawn or conditioned upon extensive post-market study requirements. Moreover, even if we receive FDA clearance or approval of new products or modifications to existing products, we will 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 may 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.

Due to the significant resources required to enable access in new markets, we must make strategic and operational decisions to prioritize certain markets, technology offerings or partnerships. We may expend our resources to access markets, develop technologies or form certain partnerships that do not yield meaningful revenue or we may fail to capitalize on markets, technologies or partnerships 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 commercialize products and realizing or achieving revenue is shorter. For example, in 2018 we entered into engagements regarding cell therapies with certain cancer centers and with an academic institution, in 2019 we entered into engagements with several synthetic biology companies, including Amyris, Inc. and Ginkgo, and in 2021 we entered into a strategic collaboration with Thermo Fisher Scientific, Inc. aimed at addressing challenges in commercial-scale viral vector manufacturing and also entered into an agreement with Bayer CropScience to accelerate and expand the discovery and development of Bayer CropScience's seeds and traits product pipeline. We seek to maintain a process of prioritization and resource allocation among our programs 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 workflows 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 markets or workflows may not lead to the development of any viable product and may divert resources away from better opportunities. Similarly, our potential decisions to delay, terminate or collaborate with third parties in respect of certain markets may subsequently also prove to be suboptimal and could cause us to miss valuable opportunities. In particular, if we are unable to develop additional relevant workflows for markets such as antibody therapeutics, cell therapy or the synthetic biology market it could slow or stop our business growth and negatively impact our business, financial condition, results of operations and prospects.

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. A product liability claim could result in substantial damages and be costly and time-consuming for us to defend.

We maintain product liability insurance, but this insurance 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. Additionally, any product liability lawsuit could damage our reputation, or cause current customers to terminate existing agreements and potential clinical partners to seek other partners, any of which could impact our business, financial condition, results of operations and prospects.

If our Emeryville, California operating facility becomes damaged or inoperable or we are required to vacate our existing facility, our ability to conduct and pursue our research and development efforts may be jeopardized.

We currently derive the majority of our revenue based upon scientific and engineering research and development, testing and manufacturing conducted at a single facility located in Emeryville, California. Our facility and equipment could be harmed or rendered inoperable or inaccessible by natural or man-made disasters or other circumstances beyond our control, including fire, earthquake, power loss, communications failure, war or terrorism, or another catastrophic event, such as a pandemic or similar infectious disease outbreak or public health crisis, which may render it difficult or impossible for us to support our customers and develop updates, upgrades and other improvements to our products. While we have small laboratory facilities in Cambridge, U.K. and Shanghai, People's Republic of China ("PRC"), the inability to address system issues or manufacture consumables and reagent kits could develop if our facility is inoperable or suffers a loss of utilization for even a short period of time, may result in the loss of customers or harm to our reputation, and we may be unable to regain those customers or repair our reputation in the future. Furthermore, our facility and the equipment we use to perform our research and development work could be unavailable or costly and time-consuming to repair or replace. It would be difficult, time-consuming and expensive to rebuild our facility, to locate and qualify a new facility or license or transfer our proprietary technology to a third party. Even in the event we are able to find a third party to assist in research and development efforts, we may be unable to negotiate commercially reasonable terms to engage with the third party.

We carry insurance for damage to our property and the disruption of our business, but this insurance may not cover all of the risks associated with damage or disruption to our business, may not provide coverage in amounts sufficient to cover our potential losses and may not continue to be available to us on acceptable terms, if at all.

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, in sufficient amounts or at all 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 that operating as a public company will make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar 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.

Public health crises such as the current COVID-19 pandemic or similar infectious disease outbreaks have impacted and may continue to cause impacts in our business.

We face risks related to epidemics, infectious diseases outbreaks or other public health crises that are outside of our control and could significantly disrupt our operations and severely adversely impact our business. These potential severe adverse impacts are difficult to predict, and the extent to which they may negatively affect our business, financial condition, results of operations and prospects is uncertain. As a result of the ongoing COVID-19 pandemic, or similar pandemics, infectious disease outbreaks or public health crises, we have and may in the future experience severe disruptions, including:

- interruption of or delays in receiving products and supplies from the third parties we rely on to, among other things, manufacture components to our systems or chips or to produce reagent kits for our workflows, due to staffing shortages, production slowdowns or stoppages and disruptions in delivery systems, which may impair our ability sell our products;
- limitations on our business operations by local, state, or the federal government that could impact our ability to sell our products;
- on-site visit limitations and prohibitions imposed by customers that could impact our ability to engage in pre-sales activities, such as in-person seminars and informational meetings on our Berkeley Lights Platform, and to provide post-sale activities, such as installation and verification, training and service and support;
- delays in customers' purchasing decisions and negotiations with customers and potential customers;
- slow-downs, delays or push-outs of customers' use of our systems and the rate at which our consumables for the systems are used by the customers;
- business disruptions caused by workplace, laboratory and office closures and an increased reliance on employees working from home, travel limitations, cyber security and data accessibility, or communication or mass transit disruptions; and
- limitations on employee resources that would otherwise be focused on the conduct of our activities, including because of sickness of employees or their families or the desire of employees to avoid contact with large groups of people.

Any potential impact will depend on future developments and new information that may emerge regarding any to epidemics, infectious diseases outbreaks or other public health crises or the efficacy and distribution of potential vaccines, and the actions taken by authorities to contain them or treat their impact, all of which are beyond our control. These potential impacts, while uncertain, could adversely affect our operating results.

The extent to which any epidemics, infectious disease outbreaks or other public health crises, including the ongoing COVID-19 epidemic may negatively impact our business is highly uncertain as it depends on factors beyond our control, such as the infection rate, the efficacy and distribution of potential vaccines or the actions taken by authorities, including quarantines, lock-downs or business closures.

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 personal information, intellectual property and proprietary business information owned or controlled by ourselves, 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, patient data, 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, data corruption 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 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. Although we take measures designed to protect 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, altered, lost or stolen. Any such access, breach, or other loss of information could result in legal claims or proceedings, and liability under U.S. federal or state laws and/or laws of other jurisdictions, including laws that protect the privacy of personal information, and regulatory penalties. Notice of breaches may be required to affected parties, individuals, the Secretary of the Department of Health and Human Services, State Attorneys General, or other state, federal or foreign regulators, and for extensive breaches, notice may need to be made to the media. Such a notice could harm our reputation and our ability to compete. Although we have implemented security measures designed to prevent unauthorized access to patient data, such data is currently accessible through multiple channels, and there is no guarantee we can protect our data from breach. Unauthorized access, loss or dissemination could also disrupt our operations and damage our reputation, any of which could adversely affect our business.

We are currently subject to, and may in the future become subject to additional, U.S., state and foreign 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 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, including for the processing of sensitive personal information such as health data, 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 ("FTC"), 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, as amended by the California Privacy Rights Act ("CCPA") has expanded privacy rights for California residents and imposes obligations on companies that process their personal information. 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 addition, laws in all 50 U.S. states require businesses to provide notice to individuals whose personal information has been disclosed as a result of a data breach. State laws are changing rapidly and there has been continuing discussion in the U.S. Congress of creating a new comprehensive federal data privacy law to which we may 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 European Union General Data Protection Regulation ("GDPR"), imposes strict obligations and restrictions on the ability to collect, use, retain, protect, disclose, transfer and otherwise process personal information. In particular, the GDPR includes obligations and restrictions concerning the consent and rights of individuals to whom the personal information relates, the transfer of personal information out of the European Economic Area to countries that have not been

determined by the EU to provide an adequate level of data protection, security breach notifications and the security and confidentiality of personal information. The GDPR authorizes fines for certain violations of up to 4% of global annual revenue or €20 million, whichever is greater. The United Kingdom has adopted similarly rigorous data protection legislation, which authorizes fines of a similar scale to those under the EU GDPR. A single incident could therefore result in significant fines under both the GDPR and UK law. In addition, many other countries around the world are developing and expanding their data protection legislation.

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, require inordinate management time, 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.

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

Our business strategy incorporates potentially significant international expansion. We currently maintain relationships with distributors outside of the United States and may in the future enter into new distributor relationships. We may also extend laboratory capabilities outside of the United States, both directly and possibly indirectly. Doing business internationally involves a number of risks, including:

- multiple, conflicting and changing laws and regulations such as privacy regulations, tax laws, export controls 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 systems, consumables and reagent kits, 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, 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 ("FCPA"), its books and records provisions, or its anti-bribery provisions.

Any of these factors could significantly harm our future international expansion and operations 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 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.

We are subject to anti-bribery, anti-corruption, anti-money laundering, economic sanctions, and export control laws, and non-compliance with such laws could adversely affect our business, financial condition, and results of operations and prospects.

We are subject to the FCPA, which among other things prohibits companies and their intermediaries from making payments in violation of law to non-U.S. government officials for the purpose of obtaining or retaining business or securing any other improper advantage, as well as U.S. domestic bribery laws. We have engaged independent distributors in the past and currently use certain independent distributors to sell our platform and solutions outside of the United States. Our reliance on independent distributors to sell the Berkeley Lights Platform internationally demands a high degree of vigilance in maintaining our policy against participation in corrupt activity, because these distributors could be deemed to be our agents and we could be held responsible for their actions. Other U.S. companies in the biotechnology and biopharmaceutical field have faced criminal penalties under the FCPA for allowing their agents to deviate from appropriate practices in doing business with these individuals.

We are also subject to similar anti-bribery and anti-corruption laws in the jurisdictions in which we operate, including the United Kingdom's Bribery Act of 2010, which also prohibits commercial bribery and makes it a crime for companies to fail to prevent bribery, and the PRC anti-bribery laws, including the PRC Anti-Unfair Competition Law amended in 2017 and the PRC Criminal Law amended in 2017. These laws are complex and far-reaching in nature, and, as a result, we cannot assure that we would not be required in the future to alter one or more of our practices to be in compliance with these laws or any changes in these laws or the interpretation thereof.

As we expand further internationally, we may engage additional distributors, business partners, agents, representatives, or other third parties to sell our products. In so doing, we or our third parties may have direct or indirect interactions with government officials. We can be held liable for the corrupt or other illegal activities of these third parties, as well as our own employees and representatives, even if we do not explicitly authorize such activities.

Any violations of the above anti-bribery and anti-corruption laws, or allegations of such violations, could disrupt our operations, involve significant management distraction, involve significant costs and expenses, including legal fees and could result in a material adverse effect on our business, financial condition, results of operations and prospects. We could also suffer severe penalties, including criminal and civil penalties; prosecution; enforcement actions; disgorgement and other remedial measures.

We are also subject to economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Controls, export controls administered by the U.S. Commerce Department's Bureau of Industry and Security, and other economic sanctions and export control regulations administered by governmental authorities in other countries where we have dealings. These regulations prohibit most dealings with and the provision of certain technology and software to restricted parties, including sanctioned persons, and sanctioned territories.

We currently have a limited geographic presence, and the jurisdictions in which we have dealings are not generally associated with significant sanctions- or export control-related risks for biotechnology companies. However, changes to sanctions or export control regulations in the jurisdictions where we currently operate or have dealings, or in the future may operate or have dealings, could adversely impact business operations, including by increasing costs associated with sanctions and export control compliance and by reducing our ability to sell our products to existing or potential customers. In particular, we note that although US-origin biotechnology-related items destined

for the PRC are not currently subject to heightened US export controls, recent media reports suggest that the Biden administration is contemplating widening the scope of export control restrictions to cover certain biotechnology-related items exported to the PRC. An expansion of export controls to biotechnology items could impact our ability to manufacture or sell our products in the PRC, which may in turn result in increased costs or reduced sales.

We directly sell to customers internationally and conduct indirect sales through partners, agents, and distributors to promote and sell our products, and as we continue to expand, we may engage with additional distributors and third parties. We could be held liable for third parties' non-compliance with sanctions or export controls. Non-compliance with sanctions or export controls could subject us to monetary fines, civil and/or criminal penalties, loss of export privileges, reputational harm, and potential incarceration for employees held liable.

Risks related to manufacturing and supply

We and our third-party manufacturing partners have limited experience in producing our systems and certain parts and components for our systems, and if we are unable to manufacture our systems in high-quality commercial quantities successfully and consistently to meet demand, our growth will be limited.

We have, to date, manufactured our systems in limited quantities. We currently manufacture our systems and related consumables and reagent kits through a combination of third-party manufacturers and certain limited direct manufacturing at our facility in Emeryville, California. To manufacture our systems in the quantities that we believe will be required to meet anticipated market demand, we and our third-party manufacturers will need to increase manufacturing capacity, which will involve significant challenges and may require additional quality controls and regulatory approvals. Neither we nor our third-party manufacturers may successfully complete any required increase to existing manufacturing capacity in a timely manner, or at all.

If there is a disruption to our third-party manufacturers' operations, whether from COVID-19 or some other disruptions, we will have no other means of producing our systems until the third-party manufacturer restores the affected facilities or develop alternative manufacturing facilities. Additionally, any damage to or destruction of our or our third-party manufacturers' facilities or equipment may significantly impair our ability to manufacture systems on a timely basis.

If we or our third-party manufacturers are unable to produce systems 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 and our manufacturing partners have in producing commercial quantities of our systems may also result in quality issues and could result in system defects or errors or recalls.

Manufacturing delays related to quality control could negatively impact our ability to bring our systems to market, harm our reputation and decrease our revenue. Any defects, errors or recalls could be expensive and generate negative publicity, which could impair our ability to market our systems and further affect our results of operations.

We outsource the manufacturing of our systems, and components of our systems, to single-source third-party manufacturers. The failure of these manufacturers to manufacture systems or components on a timely basis could adversely affect our business.

We have engaged with two different third-parties to manufacture our systems. One such third-party manufacturer manufactures Beacon and Culture Station, and the other third party manufacturer manufactures Lightning. In addition, certain key parts of our systems are manufactured by various third-parties. We do not have any control over the process or timing of the acquisition or manufacture of materials by our third-party manufacturers, and cannot ensure that they will deliver to us the systems or components we order on time, or at all. If the operations of our third-party manufacturers are interrupted, cease, or if they are unable to meet our delivery requirements due to capacity limitations, supply issues or other constraints, we may be limited in our ability to fulfill new customer orders or to service or repair systems at current customer sites. Any change to another contract manufacturer, even if

ultimately consummated, would likely entail significant delay, require us to devote substantial time and resources, result in additional costs, and could involve a period in which our systems could not be produced in a timely or consistently high-quality manner, any of which could harm our reputation and business, and frustrate our customers and cause them to turn to our competitors. Additionally, we may be unable to enter into agreements with another contract manufacturer on commercially reasonable terms or at all, which could have a material adverse impact on our business.

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 and those of our key third-party manufacturers are dependent upon third-party suppliers, including single-source suppliers, making us vulnerable to supply shortages and price fluctuations, which could harm our business.

We rely on third-party suppliers to provide us critical and non-critical components used in the manufacturing of our products. Some our systems' critical components, include multiple optical components (DMD, camera, objectives and filters), OEP drive electronics, fluidic system components (syringe pumps, valves and tubing), motion stages, motors and temperature control components. Some of the suppliers of critical components or materials are single-source suppliers. In addition, several other non-critical components and materials that comprise our systems are currently manufactured by a single-supplier or a limited number of suppliers. In many of these cases, we have not yet qualified alternate supplier and rely upon purchase orders, rather than long-term agreements. The replacements of these 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.

Even if we are able to find replacement suppliers, we will be required to verify that the new supplier maintains facilities, procedures and operations that comply with our quality expectations and applicable regulatory requirements. Any of these events could require that we obtain a new regulatory authority approval before we implement the change, which could result in further delay or which may not be obtained at all. If our third-party suppliers fail to deliver the required commercial quantities of materials on a timely basis and at commercially reasonable prices, and we are unable to find one or more replacement suppliers capable of production at a substantially equivalent cost, volumes and quality on a timely basis, the continued commercialization of our products, the supply of our products to customers and the development of any future products will be delayed, limited or prevented, which could have material adverse effect on our business, financial condition and results of operations.

For example, the COVID-19 pandemic has disrupted the operations of certain of our third-party suppliers, resulting in increased lead-times for our purchases of some components and, in certain cases, requiring us to procure materials from alternate suppliers or incur higher logistics expenses. We have worked closely with our manufacturing partners and suppliers to enable us to source key components and maintain appropriate inventory levels to meet customer demand and have not experienced disruptions in our supply chain to date. However, there is no assurance that we will not experience more significant disruptions in our supply chain in the future, particularly if the operations of our contract manufacturing partners or any of our critical single-source component providers are more severely impacted by the pandemic and associated containment measures. Any supply interruption from our suppliers or failure to obtain additional suppliers for products or any of the components used in our products would limit our ability to manufacture our products and could have a material adverse effect on our business, financial condition, and results of operations.

In addition, many of our suppliers and contract manufacturers are not obligated to perform services or supply products for any specific period, in any specific quantity or at any specific price, except as may be provided in a particular purchase order.

We depend on our suppliers to provide us with materials or products in a timely manner that meet our quality, quantity, and cost requirements. These suppliers may encounter problems during manufacturing for a variety of reasons, including as a result of the ongoing COVID-19 pandemic, any of which could delay or impede their ability to meet our demand. These suppliers may cease producing the products or components we purchase from them or otherwise decide to cease doing business with us. We maintain limited volumes of inventory for certain critical components either at one of our third-party manufacturers or at our facility in Emeryville, California. If we inaccurately forecast demand for finished goods, we may be unable to meet customer demand which could harm our competitive position and reputation. A supply interruption or an increase in demand beyond our current suppliers' capabilities could also harm our ability to manufacture our systems 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, including any global macroeconomic impact resulting from the Russia-Ukraine conflict;
- 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 systems;
- 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 impair our ability to meet the demand of our customers, which would have an adverse effect on our business.

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

We and our third-party manufacturers maintain limited volumes of inventory materials, components and finished products. To manage our operations with our third-party manufacturers and 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 systems require an order lead time of six to ten 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 increases beyond our estimates, our third-party manufacturers and suppliers may be unable to meet our demand. In addition, if we or our third-party manufacturers underestimate our component and material requirements, we may have inadequate inventory, which could interrupt, delay, or prevent delivery of our systems 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 reputation. In the past, some of our systems have sustained serious damage in transit and were not repairable. Although we have taken steps to improve our shipping containers, there is no guarantee our systems will not become damaged or lost in transit in the future. If a system 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.

Risks related to our intellectual property and ongoing litigation

If we are unable to obtain and maintain sufficient intellectual property protection for our technology, including the Berkeley Lights Platform, 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 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, protect, maintain or 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 competitors' products, our competitive position could be adversely affected, as could our business. Both the patent application process and the process of managing patent and other intellectual property disputes can be time-consuming and expensive.

As is the case with other life sciences and biotechnology companies, our success depends in large part on our ability to obtain and maintain protection of the intellectual property we may own solely and jointly with others, 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 in our industry is costly, time-consuming and complex, and we may fail to apply for patents on important products, services and technologies in a timely fashion or at all, or we may fail to apply for patents in potentially relevant 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.We may not be able to file and prosecute all necessary or desirable patent applications, or maintain, enforce and license any patents that may issue from such patent applications, at a reasonable cost or in a timely manner, or at all. 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. We may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the rights to patents licensed to third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

As of December 31, 2022, our owned patent assets included approximately 63 U.S. patents, 72 pending U.S. patent applications, 6 pending PCT, applications, 404 foreign patents and 330 pending foreign patent applications in various foreign jurisdictions, including Australia, Canada, the PRC, the European Union, Hong Kong, Israel, Japan, Singapore, South Korea, and Taiwan. Our owned patent assets include 17 patents and applications that are jointly owned by us and by the UC Regents, including 2 U.S. patents, 2 pending U.S. patent applications, 9 foreign patents, and 4 foreign patent applications, of which the 2 U.S. patents, the 8 foreign patents, are included within the scope of our exclusive licensing arrangement with the UC Regents. As of December 31, 2022, our in-licensed patent assets included 9 U.S. patents, 6 foreign patent, and 1 pending U.S. patent application. 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 and invalidated by third parties. It is possible that others will design around our current or future patented technologies. It is possible that in the future some of our patents, licensed patents and patent applications may be challenged at the USPTO, or in proceedings before the patent offices of other jurisdictions. 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 unenforceability or invalidity of such patents and increased competition to our business. We may have to challenge the patents or patent applications of third parties. The outcome of patent litigation or other proceedings 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, and whether or not successful, may take substantial time and result in substantial cost, and may divert our efforts and attention from other aspects of our business.

The patent positions of life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States or elsewhere. Courts frequently render opinions in the biotechnology field that may affect the patentability of certain inventions or discoveries.

Our in-licensed patent rights may be subject to a reservation of rights by one or more third parties. For example, we in-license certain patent rights from UC Regents, which were funded in part by the U.S. government. As a result, the U.S. government may have certain rights, including so-called march-in rights, to such patent rights and any products or technology developed from such patent rights. When new technologies are developed with U.S. government funding, the U.S. government generally obtains certain rights in any resulting patents, including a nonexclusive license authorizing the U.S. government to use the invention for non-commercial purposes. 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 to 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 the practical application of 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. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any exercise by the U.S. government of such rights could harm our business, financial condition, results of operations and prospects.

Claims by AbCellera and the University of British Columbia that we infringe their intellectual property rights may adversely affect our business, financial condition, results of operations and prospects.

In July through September 2020, AbCellera filed a series of complaints in the United States District Court for the District of Delaware, alleging that we infringed and continue to infringe, directly and indirectly, the following patents exclusively licensed by AbCellera by making, using, offering for sale, selling and/or importing our Beacon and Culture Station instruments and the OptoSelect chips, and sale of the Opto Plasma B Discovery Workflow: U.S. Patent Nos. 10,107,812, 10,274,494, 10,466,241, 10,578,618, 10,697,962, 10,087,408, 10,421,936, 10,704,018, 10,718,768, 10,738,270, 10,746,737, 10,753,933, 10,775,376, 10,775,377, and 10,775,378. UBC, the owner of the patents, joined AbCellera as a named plaintiff in the lawsuits. AbCellera and UBC are seeking, among other things, judgment of infringement, a permanent injunction and damages (including lost profits, a reasonable royalty, reasonable costs and attorney's fees, and treble damages for willful infringement). In addition to procedural motions, we have filed an answer and counterclaims in response to each of the lawsuits. Our counterclaims in each lawsuit include counts for declaratory judgment of non-infringement of the asserted patents, for declaratory judgment of invalidity of the asserted patents, for declaratory judgment of unenforceability of the asserted patents due to inequitable conduct, and unfair competition under state and federal law.

We filed a motion to transfer the lawsuits to the United States District Court for the Northern District of California, which was granted and where the lawsuits have been consolidated and are now pending ("Consolidated Lawsuit"). On May 6, 2021 and pursuant to Court Order, AbCellera and UBC reduced, without prejudice, the asserted patents in the consolidated lawsuit to the following: US Patent Nos. 10,087,408, 10,421,936, 10,738,270, 10,697,962, 10,753,933, 10,775,376 and 10,775,378.

On July 1, 2021, the court issued a Case Management Order that, among other things, scheduled a jury trial date of December 12, 2022, and requires AbCellera and UBC to reduce the number of asserted patents to no more than two, and the total asserted patent claims to no more than four per patent prior to the trial.

In July 2021 and August 2021, we filed petitions for inter Partes Review ("IPR") with USPTO, challenging the validity of various asserted claims of U.S. Patent No. 10,087,408 and all asserted claims of U.S. Patent Nos. 10,421,936 and 10,739,270. In August 2021, the court stayed the Consolidated Lawsuit pending the outcome of the IPR proceedings.

In January 2022, the Patent Trial and Appeal Board ("PTAB") of the USPTO issued a decision instituting IPR on U.S. Patent No. 10,087,408 and a decision denying IPR on U.S. Patent No. 10,421,936. In February 2022, the PTAB issued a decision denying IPR on U.S. Patent No. 10,739,270. More recently, in January 2023, the PTAB issued a decision upholding the validity of the challenged claims in U.S. Patent No. 10,087,408. The consolidated lawsuits remain stayed at this time.

We believe that the patent assertions by AbCellera and UBC are without merit and we intend to defend ourselves vigorously. We also intend to proceed with our claims and counterclaims against AbCellera and UBC. Outcomes in litigation can be uncertain and it is possible a court may disagree with our position. An adverse determination in these lawsuits could subject us to significant liabilities, require us to seek licenses from or pay royalties to AbCellera and/or UBC, or prevent us from manufacturing, selling or using certain of our products, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Changes in patent law in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our products.

Changes in either the patent laws or interpretations of patent laws in the United States or other countries or regions may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. We may not develop additional proprietary products, methods and technologies that are patentable.

Under the Leahy-Smith America Invents Act enacted in September 16, 2011, the United States transitioned to a first inventor to a 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 invented the claimed invention first. A third party that files a patent application in the USPTO before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This requires us to be cognizant of the time from invention to filing of a patent application. Since patent applications in the United States and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we or our licensors were the first to either (i) file any patent application related to our products or (ii) invent any of the inventions claimed in our or our licensor's patents or patent applications.

The America Invents Act also included a number of significant changes that affect the way patent applications are prosecuted and also may affect patent litigation. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, inter partes review and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in 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. Therefore, we may face increased uncertainties and costs surrounding the prosecution of our owned or in-licensed patent applications and the enforcement or defense of our owned or in-licensed issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, the patent position of companies in the biotechnology field is particularly uncertain. Various courts, including the United States Supreme Court have rendered decisions that affect the scope of patentability of certain inventions or discoveries relating to biotechnology. These decisions state, among other things, that a patent claim that recites an abstract idea, natural phenomenon or law of nature (for example, the relationship between particular genetic variants and cancer) are not themselves patentable. Precisely what constitutes a law of nature or abstract idea is uncertain, and it is possible that certain aspects of our technology could be considered natural laws. Accordingly, the evolving case law in the United States and pending legislation in Congress may adversely affect our ability to obtain or enforce patents and may facilitate third-party challenges to any owned or licensed patents. 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 United States Patent and Trademark Office or other similar intellectual property offices in other countries.

Issued patents covering our products could be found invalid or unenforceable if challenged.

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) have been, are being or may be challenged at a future point in time in opposition, derivation, reexamination, inter partes review, post-grant review or interference. Any successful third-party challenge to our 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 harm our business. In addition, in patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. The outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. If a defendant 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 platform technologies. 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, 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 that could result in substantial cost to us. 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, patent laws of the United States allow for various post-grant opposition proceedings, the outcome of which may be uncertain. Furthermore, if third parties bring these proceedings against our patents, we could experience significant costs and management distraction.

We rely on in-licenses from third parties. If we lose these rights, our business may be materially adversely affected, our ability to develop improvements to our existing systems, workflows, consumables and reagent kits and to develop new systems, workflows, consumables and reagent kits may be negatively and substantially impacted, and if disputes arise, we may be subjected to future litigation as well as the potential loss of or limitations on our ability to develop and commercialize products and technology covered by these license agreements.

We are party to a royalty-bearing license agreement with the UC Regents that grants us exclusive rights to exploit certain patent rights that are related to our systems. We may need to obtain additional licenses from others to advance our research, development and commercialization activities. Our license agreement with the UC Regents imposes, and we expect that any future exclusive in-license agreements will impose, various development, diligence, commercialization and other obligations on us. We have also entered into engagements in the past, and may enter into engagements in the future, with other partners and customers under which we obtain certain intellectual property rights relating to our platform and technology. These engagements take the form of exclusive licenses or of actual ownership of intellectual property rights or technology from third parties. Our rights to use the technology we license are subject to the continuation of and compliance with the terms of those agreements. In some cases, we may not control the prosecution, maintenance or filing of the patents to which we hold licenses, or the enforcement of those patents or other intellectual property against third parties.

Moreover, disputes may arise with respect to our licensing or other upstream agreements, including:

- the scope of rights granted under the agreements and other interpretation-related issues;
- the extent to which our systems and consumables, technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under our collaborative development relationships;
- our diligence obligations under the license agreements and what activities satisfy those diligence obligations;
- the calculation and amount of any royalties we are required to pay;
- compliance with restrictions on use of licensed intellectual property, including limitations to certain territories or fields of use;
- protection of our licensors' and other third parties' know-how and other confidential information;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and our partners; and
- the priority of invention of patented technology.

In spite of our efforts to comply with our obligations under our in-license agreements, our licensors might conclude that we have materially breached our obligations under our license agreements and might therefore, including in connection with any aforementioned disputes, terminate the relevant license agreement, thereby removing or limiting our ability to develop and commercialize products and technology covered by these license agreements. If any such in-license is terminated, or if the licensed patents fail to provide the intended exclusivity, competitors or other third parties might have the freedom to market or develop products similar to ours. In addition, absent the rights granted to us under such license agreements, we may infringe the intellectual property rights that are the subject of those agreements, we may be subject to litigation by the licensor, and if such litigation by the licensor is successful we may be required to pay damages to our licensor, or we may be required to cease our development and commercialization activities which are deemed infringing, and in such event we may ultimately need to modify our activities or products to design around such infringement, which may be time- and resource-consuming, and which may not be ultimately successful. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects. In particular, if our license with the UC Regents is terminated, we may suffer the foregoing consequences with respect to our business.

In addition, our rights to certain technologies, are licensed to us on a non-exclusive basis. The owners of these non-exclusively licensed technologies are therefore free to license them to third parties, including our competitors, on terms that may be superior to those offered to us, which could place us at a competitive disadvantage. Moreover, our licensors may own or control intellectual property that has not been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing or otherwise violating the licensor's rights. In addition, certain of our agreements with third parties may provide that intellectual property arising under these agreements, such as data that could be valuable to our business, will be owned by the counterparty, in which case, we may not have adequate rights to use such data or have exclusivity with respect to the use of such data, which could result in third parties, including our competitors, being able to use such data to compete with us.

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

In the future, we may identify third-party intellectual property and technology we may need to license in order to engage in our business, including to develop or commercialize new products or services, and the growth of our business may depend in part on our ability to acquire, in-license or use this technology. However, such licenses may not be available to us on acceptable terms or at all. 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 development or commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. Even if such licenses are available, we may be required to pay the licensor in return for the use of such licensor's technology, lump-sum payments, payments based on certain milestones such as sales volumes, or royalties based on sales of our platform. In addition, such licenses may be non-exclusive, which could give our competitors access to the same intellectual property licensed to us. We may also need to acquire or negotiate licenses to patents or patent applications before or after introducing a commercial product. The acquisition and licensing of third-party patent rights is a competitive area, and other companies may also be pursuing strategies to acquire or license third-party patent rights that we may consider attractive. We may not be able to acquire or obtain necessary licenses to patents or patent applications. Even if we are able to obtain a license to patent rights of interest, we may not be able to secure exclusive rights, in which case others could use the same rights and compete with us. Our business, financial condition, results of operations and prospects could be materially and adversely affected if we are unable to enter into necessary agreements on acceptable terms or at all, if any necessary licenses are subsequently terminated, if the licensors fail to abide by the terms of the licenses or fail to prevent infringement by third parties, or if the acquired or licensed patents or other rights are found to be invalid or unenforceable. Moreover, we could encounter delays in the introduction of products or services while we attempt to develop alternatives. Defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing products, which could harm our business, financial condition, results of operations and prospects.

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

Filing, prosecuting and defending patents on our systems, workflows, consumables and reagent kits 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. In addition, 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 may encounter difficulties in protecting and defending such rights in foreign jurisdictions. Consequently, we 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 inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and 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 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, particularly those relating to biotechnology, 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. Proceedings to enforce our patents and other intellectual property rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business, could put our patents and other intellectual property at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, or that are initiated against us, 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 maintenance and enforcement of intellectual property. Accordingly, our efforts to obtain, maintain and 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.

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, including parts of our technology platform, and to maintain our competitive position. However, trade secrets and know-how can be difficult to protect. 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, and we cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access 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 party, it could result in significant cost and distraction.

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 illegally obtained and was using our trade secrets, it would be expensive and time-consuming, it may be difficult for us to prove that the trade secrets were obtained or used illegally, and the outcome would be unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets.

On January 5, 2023, the FTC announced a proposal to introduce a new rule that, if implemented, would ban non-compete obligations in the United States. The proposed rule would prevent employers from entering into non-compete clauses with workers and require employers to rescind existing non-compete clauses. If this rule, or similar rules in the United States or other jurisdictions, is implemented, we would not be able to rely on non-compete clauses to protect our trade secrets and other confidential information to the same extent, or at all, which may increase the likelihood of our trade secrets and other confidential information becoming known to our competitors and other third parties.

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. 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. If any of our trade secrets were to be disclosed to or independently discovered by a competitor or other third party, it could harm 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.

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 and face increased competition to our business. 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.

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. Any of the foregoing could harm 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 trademarks, and if we are not successful in challenging such rights, we may not be able to use these 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 have and 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 have not yet registered certain of our trademarks in all of our potential markets, although we have registered Beacon, Berkeley Lights and the Berkeley Lights logo in the United States as well as certain of our trademarks outside of the United States. If we apply to register these trademarks in other countries, and/or other trademarks in the United States and other countries, our applications may not be allowed for registration in a timely fashion or at all; and further, our registered trademarks may not be maintained or enforced. For example, we have not been able to obtain the registration of the marks Berkeley Lights, Beacon and Lightning in certain foreign jurisdictions, including the PRC. In addition, opposition or cancellation proceedings have been, or may in the future be, filed against our trademark applications and registrations, and our trademarks may not survive such proceedings. For example, an opposition was filed against our Beacon trademark application in 2017 in the United States, which was amicably resolved, and an opposition was filed in the European Union and a request to extend the opposition period in the United States related to our Lightning trademark application in 2019. While the opposition period in the United States related to our Lightning trademark application expired without an opposition being filed, it is still possible that we may not be able to successfully register the trademark in the United States, that any registration we do obtain is narrower than in the application as originally filed. It is also possible that we may have restrictions upon our use of the Lightning trademark in the United States or in other countries. In addition, third parties may file first for our trademarks in certain countries. If they succeed in registering such trademarks, and if we are not successful in challenging such third-party rights, we may not be able to use these trademarks to market our products and technologies in those countries. If we do not secure registrations for our trademarks, we may encounter more difficulty in enforcing them against third parties than we otherwise would. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively, which could harm our business, financial condition, results of operations and prospects. And, over the long-term, if we are unable to establish name recognition based on our trademarks, then our marketing abilities may be materially adversely impacted.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an interest in our owned or in-licensed patents, trade secrets or other intellectual property as an inventor or co-inventor. For example, we or our licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our products. Litigation may be necessary to defend against these and other claims challenging inventorship of our or our licensors' ownership of our owned or in-licensed patents, trade secrets or other intellectual property. If we or our licensors fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our systems, including our software, workflows, consumables and reagent kits. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees, and certain customers or partners may defer engaging with us until the particular dispute is resolved. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We are currently and in the future may be involved in litigation related to intellectual property, which could be time-intensive and costly and may adversely affect our business, financial condition, results of operations and prospects.

In recent years, there has been significant litigation in the United States involving intellectual property rights. We are and may in the future be involved with litigation or actions at the USPTO with various third parties that claim we or our partners or customers using our solutions and services have misappropriated or misused other parties' intellectual property rights. We expect that the number of such claims may increase as the number of our systems, workflows, consumables and reagent kits, and the level of competition in our industry segments, grow. Any infringement claim, regardless of its validity, could harm our business by, among other things, resulting in time-consuming and costly litigation, diverting management's time and attention from the development of the business, requiring the payment of monetary damages (including treble damages, attorneys' fees, costs and expenses) or royalty payments, or result in potential or existing customers delaying purchases of our products or entering into engagements with us pending resolution of the dispute.

As we move into new markets and applications for our platform, incumbent participants in such markets may assert their patents and other proprietary rights against us as a means of slowing our entry into such markets or as a means to extract substantial license and royalty payments from us. Our competitors and others may now and, in the future, have significantly larger and more mature patent portfolios than we have. In addition, future litigation may involve patent holding companies or other adverse patent owners who have no relevant product or service revenue and against whom our own patents may provide little or no deterrence or protection. Therefore, our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties, or the invalidity of such patents or proprietary rights.

Our research, development and commercialization activities may in the future be subject to claims that we infringe or otherwise violate patents or other intellectual property rights owned or controlled by third parties. There is a substantial amount of litigation and other patent challenges, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology industry, including patent infringement lawsuits, interferences, oppositions and IPR proceedings before the USPTO, and corresponding foreign patent offices. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing products. As the biotechnology industry expands and more patents are issued, the risk increases that our products may be subject to claims of infringement of the patent rights of third parties. Numerous significant intellectual property issues have been litigated, are being litigated and will likely continue to be litigated, between existing and new participants in our existing and targeted markets, and one or more third parties may assert that our products or services infringe their intellectual property rights as part of a business strategy to impede our successful entry into or growth in those markets.

Third parties may assert that we are employing their proprietary technology without authorization. We are also aware of issued U.S. patents and patent applications with subject matter related to our systems, workflows, consumables and reagent kits, and there may be other related third-party patents or patent applications of which we are not aware. For example, we are aware of a third-party U.S. issued patent that could possibly be construed to cover a part of one of our assay kits. In addition, we have received in the past, and may receive in the future, correspondence from third parties referring to the relevance of such third parties' intellectual property to our technology, our workflows or our advanced automated systems, and we are currently engaged in litigation with one such third party who sent us correspondence, AbCellera. Furthermore, our customers have received in the past, and may receive in the future, correspondence from third parties referring to the relevance of such third parties' intellectual property to our technology, our workflows or our advanced automated systems. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our current or future products and services may infringe. In addition, similar to what other companies in our industry have experienced, we expect our competitors and others may have patents or may in the future obtain patents and claim that making, having made, using, selling, offering to sell or importing our platform, or the systems, workflows, consumables and reagent kits that comprise our platform, infringes these patents. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our platforms, including our systems, workflows, consumables and reagent kits. Under the applicable law of certain jurisdictions, 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, which may negatively impact our ability to market our products. 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, which may negatively impact our ability to develop and market our products.

There can be no assurance that we will prevail in any suit initiated against us by third parties, successfully settle or otherwise resolve patent infringement claims. Third parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products or services, and could result in the award of substantial damages against us, including treble damages, attorney's fees, costs and expenses if we are found to have willfully infringed. In the event of a successful claim of infringement against us, we may be required to pay damages and ongoing royalties, and obtain one or more licenses from third parties, or be prohibited from selling certain products or services. We may not be able to obtain these licenses on acceptable or commercially reasonable terms, if at all, or these licenses may be non-exclusive, which could result in our competitors gaining access to the same intellectual property. In addition, we could encounter delays and incur significant costs, in product or service introductions while we attempt to develop alternative products or services, or redesign our products or services, to avoid infringing third-party patents or proprietary rights. Defense of any lawsuit or failure to obtain any of these licenses or to develop a workaround could prevent us from commercializing products or services, and the prohibition of sale or the threat of the prohibition of sale of any of our products or services could materially affect our business and our ability to gain market acceptance for our products or services.

In addition, our agreements with some of our customers, partners, suppliers or other entities with whom we do business require us to defend or indemnify these parties to the extent they become involved in infringement claims, including the types of claims described above. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, financial condition, results of operations and prospects.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Litigation or other legal proceedings relating to intellectual property claims, even if resolved in our favor, may cause us to incur substantial costs and divert the attention of our management and technical personnel from their normal responsibilities in defending against any of these claims. Parties making claims against us may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Such litigation or proceedings could substantially increase our operating costs and reduce the resources available for development activities or any future sales, marketing, or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of intellectual property proceedings could harm our ability to compete in the marketplace. In addition, 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. Any of the foregoing could harm our business, financial condition, results of operations and prospects.

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

Third parties, including our competitors, could be infringing, misappropriating or otherwise violating our intellectual property rights. Monitoring unauthorized use of our intellectual property is difficult and costly. 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 proprietary rights may not be adequate to enforce our rights as against such infringement, misappropriation or violation of our intellectual property. We may not be able to detect unauthorized

use of, or take appropriate steps to enforce, our intellectual property rights. Any inability to meaningfully enforce our intellectual property rights could harm our ability to compete and reduce demand for our products and services.

Litigation may be necessary for us to enforce our patent and proprietary rights or to determine the scope, coverage and validity of the proprietary rights of others. We are currently engaged in a lawsuit with AbCellera, the University of British Columbia, and Lineage based upon allegations of our infringement of intellectual property rights and we may become involved in additional lawsuits in the future. If we do not prevail in such legal proceedings, we may be required to pay damages, we may lose significant intellectual property protection for our products or services, such that competitors could copy our products or services and we could be forced to cease commercialization of certain of our products or services. Any litigation that may be necessary in the future 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. In any lawsuit we bring to enforce our intellectual property rights, a court may refuse to stop the other party from using the technology at issue on grounds that our intellectual property rights 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. The outcome in any such lawsuits is unpredictable. Even if we do prevail in any future litigation related to intellectual property rights, the cost and time requirements of the litigation could negatively impact our financial results.

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. We have systems in place to remind us to pay these fees, and we engage an outside service and rely on our outside counsel to pay these fees due to non-U.S. patent agencies. 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. We employ reputable law firms and other professionals to help us comply, and in many cases, an inadvertent lapse 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. In such an event, our competitors may be able to enter the market without infringing our patents and this circumstance would have a material adverse effect on our business.

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. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. 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.

Our use of open-source software could compromise our ability to offer our services and subject us to possible litigation.

We use open source-software in connection with our products and services. Companies that incorporate open-source software into their products have, from time to time, faced claims challenging their use of open-source software and compliance with open-source license terms. As a result, we could be subject to lawsuits by parties claiming

ownership of what we believe to be open-source software or claiming noncompliance with open-source licensing terms. Some open-source software licenses require users who distribute software containing open source software to publicly disclose all or part of the source code to the licensee's software that incorporates, links or uses such open-source software, and make available to third parties for no cost, any derivative works of the open source-code created by the licensee, which could include the licensee's own valuable proprietary code. While we monitor our use of open-source software and try to ensure that none is used in a manner that would require us to disclose our proprietary source code or that would otherwise breach the terms of an open-source agreement, such use could inadvertently occur, or could be claimed to have occurred, in part because open-source license terms are often ambiguous. There is little legal precedent in this area and any actual or claimed requirement to disclose our proprietary source code or pay damages for breach of contract could harm our business and could help third parties, including our competitors, develop products and services that are similar to or better than ours. Any of the foregoing could harm our business, financial condition, results of operations and prospects.

Risks related to our common stock

The market price of our common stock has been volatile and may continue to fluctuate substantially, which could result in a substantial loss for purchasers of our common stock.

The trading price of our common stock has been and is likely to continue to be volatile. Since shares of our common stock were sold in our initial public offering in July 2020 at a price of $22.00 per share, our stock price ranged from a high of $113.53 to a low of $1.83 through January 25, 2022. The market price of our common stock has been highly volatile and may continue to fluctuate substantially due to a number of factors such as those listed in "— Risks related to our business and strategy" and the following:

- actual or anticipated fluctuations in our financial condition and operating results, including fluctuations in our quarterly and annual results;
- the introduction of new products or product enhancements by us or others in our industry;
- variances in product and system reliability;
- the loss of senior management;
- overall conditions in our industry and the markets in which we operate;
- disputes or other developments with respect to our or others' intellectual property rights;
- actual or anticipated changes in our operating results or growth rate as a result of our competitors' operating results;
- our ability to develop, obtain any required regulatory clearance or approval for, and market new and enhanced products on a timely basis;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- product liability claims or other litigation;
- announcement or expectation of additional financing effort;
- sales of our common stock by us or our stockholders;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- media exposure of our products or of those of others in our industry;
- changes in applicable governmental regulations or in the status of our regulatory approvals or applications;
- changes in earnings estimates or recommendations by securities analysts; and
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

In recent years, the stock markets generally have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of listed companies. Broad market and industry factors may significantly affect the market price of our common stock, regardless of our actual operating performance. These fluctuations may be even more pronounced in the trading market for our common stock shortly following this offering. If the market price of shares of our common stock after this offering does not ever exceed the public offering price, you may not realize any return on your investment in us and may lose some or all of your investment.

In addition, in the past, class action litigation has often been instituted against companies whose securities have experienced periods of volatility in market price. Securities litigation brought against us following volatility in our stock price, regardless of the merit or ultimate results of such litigation, such as the shareholder class action litigation filed against us in December 2021, could result in substantial costs, which would hurt our financial condition and operating results and divert management's attention and resources from our business.

The outcome of legal proceedings, such as the shareholder class action complaint filed against us and certain of our current and former executives, are uncertain and could negatively impact our business operations or financial performance.

In December 2021, a shareholder class action litigation titled "Victor J. Ng, Individually and on Behalf of All Others Similarly Situated, vs. Berkeley Lights, Inc., Eric D. Hobbs, Shaun M. Holt and Kurt Wood" was filed in federal court in the Northern District of California on behalf of all purchasers of Berkeley Lights common stock between July 17, 2020 and September 14, 2021, inclusive, alleging that the Company and certain of the Company's current and former senior executives had violated §§10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder ("Securities Class Action"). The Securities Class Action asserts that, inter alia, statements about the superiority of the Berkeley Lights Platform and about our operational and financial growth were allegedly false and misleading. Plaintiffs allege that the concealed "truth" was revealed in a Scorpion Capital report on September 15, 2021, entitling class members to recover market losses as damages caused by the alleged fraud. Outcomes in litigation can be uncertain and it is possible a court may disagree with our position that the Securities Class Action is without merit. In addition to the business interruption caused by the time and cost of litigation, which could negatively impact our business and financial condition, an adverse determination in the Securities Class Action could subject us to significant liabilities, which could have a material adverse effect on our business, financial condition, results of operations and prospects. The current complaint alleges only claims based upon Section 10(b) of the Exchange Act, it is possible that a consolidated complaint could also include claims based upon Section 11 of the Securities Act. It is also possible that a shareholder derivative lawsuit may be filed against us. Any of such legal proceedings could serve to be disruptive to our business operations and negatively impact our financial performance.

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 executive officers, directors and principal stockholders each holding more than 5% of our common stock collectively control approximately 35% of our outstanding common stock. As a result, these stockholders, if they act together, will be able to control 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, adversely affect the market price of our common stock and may not be in the best interests of our other stockholders.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of us more difficult and may prevent attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our amended and restated certificate of incorporation and our amended and restated bylaws may discourage, delay or prevent a merger, acquisition or other change in control of us that stockholders may consider favorable, including transactions in which stockholders might otherwise receive a premium for their shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Because our board of directors is responsible for appointing the members of our management team, these provisions could in turn affect any attempt by our stockholders to replace current members of our management team. Among others, these provisions include that:

- our board of directors has the right to expand the size of our board of directors and to elect directors to fill a vacancy created by the expansion of the board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- our board of directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered three-year terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors;
- our stockholders may not act by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- a special meeting of stockholders may be called only by the chair of the board of directors, the chief executive officer, or a majority of the board of directors, which may delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- our amended and restated certificate of incorporation prohibits cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates;
- our board of directors may alter our bylaws without obtaining stockholder approval;
- the required approval of the holders of at least two-thirds of the voting power of all of the then outstanding shares of voting stock to adopt, amend or repeal our bylaws or repeal the provisions of our amended and restated certificate of incorporation regarding the election and removal of directors;
- stockholders must provide advance notice and additional disclosures in order to nominate individuals for election to the board of directors or to propose matters that can be acted upon at a stockholders' meeting, which may discourage or deter a potential acquiror from conducting a solicitation of proxies to elect the acquiror's own slate of directors or otherwise attempting to obtain control of our company; and
- our board of directors is authorized to issue shares of preferred stock and to determine the terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquiror.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

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

Our amended and restated certificate of incorporation specifies that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for most legal actions involving actions brought against us by stockholders; provided that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may

be brought in another state or federal court sitting in the State of Delaware. Our amended and restated certificate of incorporation also provides that the federal district courts of the United States of America will be 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. We believe these provisions may benefit us by providing increased consistency in the application of Delaware law and federal securities laws by chancellors and judges, as applicable, particularly experienced in resolving corporate disputes, efficient administration of cases on a more expedited schedule relative to other forums and protection against the burdens of multi-forum litigation. However, these provisions may have the effect of discouraging lawsuits against our directors and officers. The choice of forum provision requiring that the Court of Chancery of the State of Delaware be the exclusive forum for certain actions would not apply to suits brought to enforce any liability or duty created by the Exchange Act.

The enforceability of similar choice of forum provisions in other companies' charter documents has been challenged in legal proceedings and it is possible that, in connection with any applicable action brought against us, a court could find the choice of forum provisions contained in the Certificate of Incorporation to be inapplicable or unenforceable in such action. Specifically, the choice of forum provision in requiring that the state courts of the State of Delaware be the exclusive forum for certain suits would (i) not be enforceable with respect to any suits brought to enforce any liability or duty created by the Exchange Act and (ii) have uncertain enforceability with respect to claims under the Securities Act. The choice of forum provision in the Certificate of Incorporation does not have the effect of causing our stockholders to have waived our obligation to comply with the federal securities laws and the rules and regulations thereunder. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. If a court were to find these types of provisions to be inapplicable or unenforceable, and if a court were to find the exclusive forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could materially adversely affect our business.

Because we do not anticipate paying any cash dividends on our capital stock in the foreseeable future, capital appreciation, if any, will be our stockholder's sole source of gain.

We have never declared or paid cash dividends on our capital stock. We currently intend to retain all of our future earnings, if any, to finance the growth and development of our business. Any future determination related to dividend policy will be made at the discretion of our board of directors, subject to applicable laws and the restrictions set forth in any of our contractual agreements, and will depend upon, among other factors, our results of operations, financial condition, contractual restrictions and capital requirements. In particular, unless waived, the terms of our Amended Loan Agreement with East West Bank generally prohibit us from declaring or paying any cash dividends and making any other distributions. In addition, any future debt or preferred securities or future debt agreements we may enter may preclude us from paying dividends. As a result, capital appreciation, if any, of our common stock will be our stockholders' sole source of gain for the foreseeable future.

Tax legislative or regulatory initiatives, new interpretations or developments concerning existing tax laws, or challenges to our tax positions could adversely affect our results of operations and financial condition.

We have operations in the United States and internationally. As such, we are subject to the tax laws and regulations of the U.S. federal, state, and local governments and of various other jurisdictions outside of the United States. Periodically, various legislative initiatives may be proposed that could adversely affect our tax positions, and existing legislation may be subject to additional regulatory changes or new interpretations. There can be no assurance that our effective tax rate or tax payments will not be adversely affected by these initiatives. U.S. federal, state, local, and foreign tax laws and regulations are extremely complex and subject to varying interpretations. We are subject to examination of our income tax returns by various tax authorities. Examinations or changes in laws, rules, regulations, or interpretations by taxing authorities could result in adverse impacts to tax years open under statute or to our operating structures currently in place. It is possible that the outcomes from these examinations or changes in laws, rules, regulations, or interpretations by taxing authorities will have a material adverse effect on our financial condition or results of operations.

Our ability to use our net operating losses and certain other tax attributes may be limited.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a cumulative change of more than 50 percentage points (by value) in its equity ownership by certain stockholders over a three-year period, the corporation's ability to use its pre-change net operating loss ("NOL") carryforwards and other pre-change tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. We have experienced at least one ownership change in the past, and we may experience ownership changes in the future as a result of shifts in our stock ownership (some of which shifts are outside our control). As a result, if we earn net taxable income, our ability to use our pre-change NOL carryforwards to offset such taxable income may be subject to limitations. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. As a result, even if we attain profitability, we may be unable to use a material portion of our NOL carryforwards and other tax attributes, which could adversely affect our future cash flows.

General risk factors

Our actual operating results may differ significantly from any operating guidance we may provide.

From time to time, we release guidance in our quarterly or annual earnings conference calls, quarterly or annual earnings releases, or otherwise, regarding our future performance that represents our management's estimates as of the date of release. This guidance, which includes forward-looking statements, is based on projections prepared by our management. These projections may not be prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our registered public accountants nor any other independent expert or outside party compiles or examines the projections. Accordingly, no such person will express any opinion or any other form of assurance with respect to the projections.

Projections are based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to significant business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. The principal reason that we may release guidance is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such third parties.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions underlying the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results may vary from our guidance and the variations may be material.

Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in this "Risk Factors" section could result in actual operating results being different from our guidance, and the differences may be adverse and material.

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 is influenced to some extent by the research and reports that industry or financial analysts publish about us and our business. We do not control these analysts. As a newly public company, we may be slow to attract research coverage and the analysts who publish information about our common stock will have had relatively little experience with us or our industry, which could affect their ability to accurately forecast our results and could make it more likely that we fail to meet their estimates. If any of the analysts who cover us provide inaccurate or unfavorable research or issue an adverse opinion regarding our stock price, our stock price could decline. If one or more of these analysts cease coverage of us or fail to publish reports covering us regularly, we could lose visibility in the market, which in turn could cause our stock price or trading volume to decline.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our operating results 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 financial statements in conformity with 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 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. If our assumptions change or if actual circumstances differ from our assumptions, 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.

If we experience material weaknesses in the future or otherwise fail to implement and maintain an effective system of internal controls in the future, we may not be able to accurately report our financial condition or results of operations which may adversely affect investor confidence in us and, as a result, the value of our common stock.

As a result of becoming a public company, we are required, under Section 404 of the Sarbanes-Oxley Act, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting beginning with our Annual Report. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. A material weakness is a deficiency or combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of a company's annual and interim financial statements will not be detected or prevented on a timely basis.

The rules governing the standards that must be met for management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, including performing the evaluation needed to comply with Section 404, we will need to implement additional financial and management controls, reporting systems and procedures and hire additional accounting and finance staff. We may not be able to complete our evaluation, testing and any required remediation in a timely fashion. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal controls are effective. The effectiveness of our controls and procedures may be limited by a variety of factors, including:

- faulty human judgment and simple errors, omissions or mistakes;
- fraudulent action of an individual or collusion of two or more people;
- inappropriate management override of procedures; and
- the possibility that any enhancements to controls and procedures may still not be adequate to assure timely and accurate financial control.

We cannot assure you that there will not be material weaknesses in our internal control over financial reporting in the future. Any failure to implement and maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations or cash flows. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness in our internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

We incur significant costs as a result of operating as a public company and our management is required to devote substantial time to the new compliance initiative.

We incur costs associated with corporate governance requirements applicable to us as a public company, including rules and regulations of the SEC, under the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, and the Exchange Act, as well as the rules of Nasdaq. These rules and regulations are expected to significantly increase our accounting, legal and financial compliance costs and make some activities more time-consuming. We also expect these rules and regulations to make it more expensive for us to maintain directors' and officers' liability insurance. As a result, it may be more difficult for us to attract and retain qualified persons to serve on our board of directors or as executive officers. Accordingly, increases in costs incurred as a result of becoming a publicly-traded company may adversely affect our business, financial condition, results of operations and prospects.

Unfavorable global economic conditions could adversely affect our business, financial condition or results of operations.

A severe or prolonged economic downturn, or additional global financial crises, whether related to the ongoing COVID-19 pandemic or not, or macroeconomic issues caused by events such as the Russia-Ukraine conflict, inflation, rising interest rates, availability of capital markets, energy availability and costs or governmental initiatives to manage economic conditions. Such events or factors could result in a variety of risks to our business, including weakened demand for our BLI Platform and our workflows, systems and instruments, or our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption.

We cannot predict changes in worldwide or regional economic conditions and government policies, as such conditions are highly volatile and beyond our control. If these conditions deteriorate for extended periods, however, our business, results of operations and financial condition could be materially adversely affected.

Misconduct, non-compliance with laws, regulations, contractual arrangements and internal policies and unauthorized actions taken purportedly on our behalf by our employees, consultants, distributors, agents and vendors or third-parties exposes us to risk.

We are exposed to the risk of fraud, misconduct or unauthorized conduct by our employees, consultants, distributors, commercial partners, agents and vendors or other third-parties. For example, in November 2022, we became aware that an unknown third-party, impersonating an employee over e-mail through domain spoofing, fraudulently induced the Company's transfer agent to issue and convey 3.3 million purported shares of our common stock, which shares we believe were subsequently sold on the open market approximately between October 7, 2022, and November 3, 2022. Misconduct or fraudulent acts by these parties could include intentional failures to comply with the applicable laws and regulations in the United States and abroad, including but not limited to reporting financial information or data accurately or disclosing unauthorized activities to us. Such fraudulent acts or misconduct could result in legal or regulatory sanctions and cause serious harm to our reputation, as well as impact our ongoing business relationships. Unauthorized conduct could include intentional or unintentional failures by these parties to comply with contractual terms, policies, procedures and internal controls. The result of such unauthorized conduct could be difficult and costly to unwind or otherwise address. It is not always possible, and we are not always able to identify and deter such fraud, misconduct, or unauthorized conduct by such parties, and other precautions we take to detect and prevent such activities are not always effective in controlling risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws, regulations, contractual arrangements, policies, procedures or controls. If any actions are instituted against us for such fraud, misconduct or unauthorized conduct, and we are not successful in defending ourselves or asserting our rights, such 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.

Disasters and other business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

We operate our business in regions subject to earthquakes, fires, medical epidemics, and pandemics, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, shifting climate patterns, extreme weather conditions, and other natural or man-made disasters or business interruptions. Additionally, we rely on third-party manufacturers to produce various components that are integrated into our products, third-party distributors to distribute our products and customers to purchase our products, each of which is also vulnerable to such natural or man-made disasters or business interruptions. Our ability to obtain supplies of components and to distribute and sell our finished products could be disrupted if the operations of these suppliers, distributors or customers were materially affected by any such natural or man-made
disaster or other business interruption.

In addition, our corporate headquarters and manufacturing facilities are located in Emeryville, California, near major earthquake faults and fire zones. If a major earthquake, wildfire or other natural disaster were to damage our facilities or the facilities of suppliers and service providers or impact the ability of our employees or the employees of our suppliers and service providers to continue business operations, we may experience potential impacts ranging from production and shipping delays to lost revenues and increased costs. The occurrence of any of these natural or man-made disasters or other business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

As of December 31, 2022, the Company's principal properties consisted of the following:

Nature	Location	Held
Corporate headquarters, manufacturing, distribution, laboratory facilities	Emeryville, California	Lease
Office facility	Del Mar, California	Lease
Office and laboratory facilities	Lexington, Massachusetts	Lease [(1)]
Office and laboratory facilities	Shanghai, China	Lease
Office and laboratory facilities	Cambridge, United Kingdom	Lease

(1) This facility has been subleased to a third party as of December 31, 2022.

Item 3. Legal Proceedings.

From time to time, the Company may be involved in legal and administrative proceedings and claims of various types. The Company records a liability in its financial statements for these matters when a loss is known and considered probable and the amount can be reasonably estimated. The Company does not recognize gain contingencies until they are realized. Legal costs incurred relating to loss contingencies are expensed as incurred.

AbCellera Biologics Litigation

In July through September 2020, AbCellera filed a series of complaints in the United States District Court for the District of Delaware, alleging that the Company infringed and continues to infringe, directly and indirectly, the following patents exclusively licensed by AbCellera by making, using, offering for sale, selling and/or importing our Beacon and Culture Station instruments and the OptoSelect chips, and sale of the Opto Plasma B Discovery Workflow: U.S. Patent Nos. 10,107,812, 10,274,494, 10,466,241, 10,578,618, 10,697,962, 10,087,408, 10,421,936, 10,704,018, 10,718,768, 10,738,270, 10,746,737, 10,753,933, 10,775,376, 10,775,377, and 10,775,378. UBC, the owner of the patents, joined AbCellera as a named plaintiff in the lawsuits. AbCellera and UBC are seeking, among other things, judgment of infringement, a permanent injunction and damages (including lost profits, a reasonable royalty, reasonable costs and attorney's fees, and treble damages for willful infringement). In addition to procedural

motions, the Company has filed an answer and counterclaims in response to each of the lawsuits. The Company's counterclaims in each lawsuit include counts for declaratory judgment of non-infringement of the asserted patents, for declaratory judgment of invalidity of the asserted patents, for declaratory judgment of unenforceability of the asserted patents due to inequitable conduct, and unfair competition under state and federal law.

The Company filed a motion to transfer the lawsuits to the United States District Court for the Northern District of California, which was granted and where the lawsuits have been consolidated and are now pending ("Consolidated Lawsuit"). On May 6, 2021 and pursuant to Court Order, AbCellera and UBC reduced, without prejudice, the asserted patents in the consolidated lawsuit to the following: US Patent Nos. 10,087,408, 10,421,936, 10,738,270, 10,697,962, 10,753,933, 10,775,376 and 10,775,378.

On July 1, 2021, the court issued a Case Management Order that, among other things, scheduled a jury trial date of December 12, 2022, and requires AbCellera and UBC to reduce the number of asserted patents to no more than two, and the total asserted patent claims to no more than four per patent prior to the trial.

In July 2021 and August 2021, the Company filed petitions for IPR with USPTO, challenging the validity of various asserted claims of U.S. Patent No. 10,087,408 and all asserted claims of U.S. Patent Nos. 10,421,936 and 10,739,270. In August 2021, the court stayed the Consolidated Lawsuit pending the outcome of the IPR proceedings.

In January 2022, the PTAB of the USPTO issued a decision instituting IPR on U.S. Patent No. 10,087,408 and a decision denying IPR on U.S. Patent No. 10,421,936. In February 2022, the PTAB issued a decision denying IPR on U.S. Patent No. 10,739,270. More recently, in January 2023, the PTAB issued a decision upholding the validity of the challenged claims in U.S. Patent No. 10,087,408. The consolidated lawsuits remain stayed at this time.

The Company believes that the patent assertions by AbCellera and UBC are without merit and it intends to defend itself vigorously. The Company also intends to proceed with its claims and counterclaims against AbCellera and UBC. Outcomes in litigation can be uncertain and it is possible a court may disagree with our position. An adverse determination in these lawsuits could subject the Company to significant liabilities, require it to seek licenses from or pay royalties to AbCellera and/or UBC, or prevent it from manufacturing, selling or using certain of our products, any of which could have a material adverse effect on the Company's business, financial condition, results of operations and prospects.

Securities Class Action

In December 2021, Victor J. Ng filed a securities class action complaint ("Securities Class Action"), which was amended on July 25, 2022. The Securities Class Action is on behalf of all persons who purchased or otherwise acquired: (a) Berkeley Lights common stock pursuant and/or traceable to certain July 2020 Initial Public Offering ("IPO") offering documents and/or (b) securities of Berkeley Lights between July 17, 2020 and January 5, 2022, inclusive. The complaint alleges claims under §§10(b) and 20(a) of the Exchange Act and Rule 10b-5 promulgated thereunder as well as §§11, 12(a)(2) and 15 of the Securities Act. It names as defendants the Company, certain of the Company's current and former senior executives and directors, the underwriter firms that sponsored the Company's July 2020 IPO, and three firms that invested in the Company. The Company believes that the assertions in the Securities Class Action are without merit and intends to defend itself vigorously. Outcomes in litigation can be uncertain and it is possible a court may disagree with the Company's positions. An adverse determination in the Securities Class Action could subject the Company to significant liabilities, which could have a material adverse effect on the Company's business, financial condition, results of operations and prospects.

Derivative Action

In March 2022, Trung Nguyen filed a shareholder derivative complaint on behalf of nominal defendant Berkeley Lights, Inc., alleging that certain of the Company's current and former directors and certain of the Company's current and former senior executives breached their fiduciary duties to the Company. The complaint also alleged that certain of the Company's current and former directors and former senior executives used material, non-public information to improperly profit from the sale of Company stock, and that certain of the Company's current and former senior executives owe the Company contribution for violations of sections 10(b) and 21D of the Exchange Act.

No provision has been made for litigation because the Company believes that it is not probable that a liability had been incurred as of December 31, 2022.

The Company is not currently involved in any other claims or legal actions, nor is management aware of any potential claims or legal actions, for which the ultimate disposition could have a material adverse effect on the Company's financial position, results of operations, or liquidity.

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

Our common stock has been listed on the Nasdaq Global Select Market under the symbol "BLI" since July 17, 2020. Prior to that date, there was no public trading market for our common stock.

Holders of Common Stock

As of February 14, 2023, there were 22 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Dividend Policy

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain any future earnings and do not expect to pay any dividends in the foreseeable future. Any future determination to declare cash dividends will be made at the discretion of our board of directors, subject to applicable laws, and will depend on a number of factors, including our financial condition, results of operations, capital requirements, contractual restrictions, general business conditions and other factors that our board of directors may deem relevant. In addition, the terms of our Loan and Security Agreement place certain limitations on the amount of cash dividends we can pay, even if no amounts are currently outstanding.

Sales of Unregistered Securities

None.

Use of Proceeds

There has been no material change in the expected use of the net proceeds from our IPO as described in our Annual Report on Form 10-K filed with the SEC on March 12, 2021.

Issuer Purchases of Equity Securities

None.

Item 6. [Reserved]

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

You should read the following discussion and analysis of financial condition and results of operations together with our consolidated financial statements and related notes included elsewhere in this Annual Report. This discussion and other parts of this Annual Report contain forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed in or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section titled "Risk Factors." Please also see the section titled "Special Note Regarding Forward Looking Statements."

Overview

Berkeley Lights is a leading functional cell biology company focused on enabling and accelerating the rapid development and commercialization of biotherapeutics and other cell-based products. The Berkeley Lights Platform captures deep phenotypic, functional and genotypic information for thousands of single cells in parallel and can also deliver the live biology customers desire in the form of the best cells for the desired cell-based product. This is a new way to capture and interpret the qualitative language of biology and translate it into single-cell specific functional information, referred to as functional cell biology. We currently focus on enabling the large and rapidly growing markets of antibody therapeutics, cell line development, gene therapies, TCR discovery and agriculture with our portfolio of commercial products and services.

The Berkeley Lights Platform can not only be used to characterize the performance of cells relevant to the desired cell-based product early in the discovery process and then connect this phenotypic data to the genetic code for each cell. In contrast, current genomic technologies find sequences first and fail to deliver the functional information early in the process. Performing functional validation early means letting poorly performing cells fail early while rapidly advancing the best candidates forward, before incurring significant research and development expense. Our platform repeats this process of fail and advance many times throughout the process, identifying the best biology and delivering the best cells for what we believe will deliver the best product.

Our platform is a fully integrated, end-to-end solution, comprised of proprietary consumables, including our OptoSelect chips and reagent kits, advanced automation systems and advanced application and workflow software. Customers load onto our system their live cell samples, as well as media and reagents, then the cells are imported onto our OptoSelect chips where integrated workflows are performed to assess specific cell functions and attributes. Our platform captures and delivers rich single-cell data to find the best cells. Our platform leverages our proprietary OEP technology, which enables deterministic positioning of living single cells and other micro-objects using light. OEP is a core technology of our platform and allows for a high level of control over live single cells or other micro-objects throughout the functional characterization process.

Our commercial workflows, each of which are distinct offerings, are made up of four modules we call Import, Culture, Assay and Export. These modules can be adapted, interchanged and deployed with a variety of single-cell assays to address specific applications and a variety of cell types. We believe this versatility facilitates rapid development of new workflow offerings and virtually unlimited workflow commercialization opportunities. We have developed and will continue to develop and commercialize proprietary workflows across large markets by leveraging existing workflows and assays. Over time, our goal is to enable customers to standardize many of their processes on our platform utilizing our workflows. We believe we are the only company commercializing a platform that can do this in a scalable way.

We commercially launched our platform in December of 2016, which included the Beacon system and the alpha version of our Opto Cell Line Development 1.0 workflow, targeted to the antibody therapeutics market. From the initial launch of our platform through December 31, 2022, we have commercially launched twelve workflows. We currently focus on enabling the large and rapidly growing markets of antibody therapeutics, cell line development, gene therapies, TCR discovery and agriculture with our portfolio of commercial products and services. Our goal is to establish the Berkeley Lights Platform as the standard throughout of the cell-based product value chain by increasing the probability of successful product development for our customers.

During 2022, we validated the unique capability on our platform to select and retrieve high-value stable producer cell lines that can improve the cost and therapeutically relevant yields for manufacturing Adeno-associated virus

("AAV")-based gene therapies, which we believe represents a significant return on investment opportunity in the near term. As such, we intend to dedicate a significant number of our resources towards development of this workflow in 2023.

As of December 31, 2022, our customer base was comprised of 96 customers and included several of the largest biopharmaceutical companies in the world, as well as biotechnology companies, leading contract research organizations, synthetic biology companies and academic institutions. While we have seen significant growth in our customer and installed base, we believe we are still in the very early stages of platform adoption, with the majority of our historical revenue derived from early adopters of our technology for research and development purposes.

We focus a substantial portion of our resources on platform, workflow and assay development, as well as on business development and sales and marketing. Our research and development efforts are geared towards developing new workflows and assay capabilities, as well as new advanced systems and OptoSelect chips and reagent kits, to meet both our customers' needs and to address new markets.

We generally outsource all of our production manufacturing. Design work, prototyping and pilot manufacturing are performed in-house before outsourcing to third party contract manufacturers. Our outsourced production strategy is intended to drive cost leverage and scale, and avoid the high capital outlays and fixed costs related to constructing and operating a manufacturing facility. The contract manufacturers of our systems, reagent kits and OptoSelect chip components are located in the United States, Asia and Europe. Certain of our suppliers of components and materials are single source suppliers. We perform final manufacture and assembly steps of our OptoSelect chips in-house.

Since our inception in 2011, we have incurred net losses in each year. Our net losses were $98.0 million and $71.7 million for the years ended December 31, 2022 and 2021, respectively. As of December 31, 2022, we had an accumulated deficit of $361.6 million and cash and cash equivalents totaling $86.5 million. We expect to continue to incur significant expenses and operating losses for the foreseeable future. We expect our expenses will increase substantially in connection with our ongoing activities, as we:

- attract, hire and retain qualified personnel;
- invest in processes and infrastructure to scale our platform;
- support research and development to introduce new products;
- market and sell new and existing products and services;
- protect and defend our intellectual property; and
- acquire businesses or technologies to support the growth of our business.

Access options to functional cell biology enabled by the Berkeley Lights Platform

Our business model is focused on driving the adoption of the Berkeley Lights Platform and maximizing its use across our customers' value chains. This is achieved by enabling more functional testing of single cells throughout our customers' value chains and by finding opportunities for customers to perform single-cell functional testing earlier in their product development process to advance better product candidates. We engage with potential customers to identify a significant challenge they are facing and then evaluate which of our workflows and underlying assays can address their problem. Customers can gain access to our platform via direct purchase, subscription, or a strategic partnerships and services agreement. In many cases we can address customers' needs with existing or variants of existing workflows. Alternatively, we may form strategic partnerships to develop substantially new workflows with our customers to address their needs.

Strategy

In August 2022, we updated our company-wide strategy around five key pillars:

1. Generate positive operating cash flow by early 2025.

2. Prioritize research and development's return on investment through increased focus and rigor on development initiatives.

3. Deliver consistent commercial execution through a new sales structure and enhanced product portfolio and pricing strategy.

4. Build a world-class leadership team with a proven track record in profitably scaling life sciences tools companies.

5. Evaluate M&A opportunities that will help us accelerate profitable growth and leverage our current cost structure.

By focusing on these five pillars, we believe we can transform Berkeley Lights from a technology platform company to a diverse life sciences tools and services company. We believe the IsoPlexis transaction, if closed, fully supports the five pillars of our strategic plan, including, among other things, allowing us to achieve positive operating cash flow by 2024. See "Business" for more information on our strategic objectives.

Recent Trends

In the second half of 2022, all of our existing strategic partnership and services engagements have been completed. Coupled with our focus on the AAV opportunity discussed above, we expect revenue from strategic partnerships and services agreements to significantly decline in 2023 and to cease in the near term. For additional information, see "Risk Factors—Our revenue under our customer sales engagements, program and service agreements and strategic partnerships and services for any particular period can be difficult to forecast." in Part I, Item 1A in this Annual Report.

In addition, there are multiple broad based factors impacting our business:

1. Global and domestic supply chains and the timely availability of raw materials and products have been and may continue to be materially disrupted by quarantines, factory slowdowns or shutdowns, border closings and travel restrictions resulting from the COVID-19 pandemic.

2. Macroeconomic factors including the war between Ukraine and Russia as well as political instability elsewhere, has resulted in unfavorable global economic conditions including increased inflation and interest rates and may lead to a recession.

Our business has been impacted and will continue to be impacted by the above factors. To date, our production, shipping and customer service functions have remained operational to maintain a continuous supply of products both to our customers and for our internal research and development activities. Any manufacturing supply interruption of materials could adversely affect our ability to conduct ongoing and future activities. We continue to closely monitor global supply issues around materials, parts and components, including plastics and integrated circuit chips, and we have not experienced any material supply issue to date.

The ultimate impact of the foregoing factors on our operations and financial performance in future periods remains uncertain and will depend on many factors outside our control, including the timing, extent, trajectory, and duration of the pandemic as well as the magnitude of any potential recession and related government actions to prevent and manage these issues, all of which are uncertain and cannot be predicted. While the overall impact of these matters is impossible to measure, they have resulted in, and may continue to result in, significant disruption of global financial markets, reducing our ability to access capital, which could in the future negatively affect our liquidity and, ultimately our business and operations. Refer to Part I, Item 1A of our Annual Report under the heading "Risk Factors" for more information.

Pending Acquisition of IsoPlexis

On December 21, 2022, we entered into a definitive agreement to acquire IsoPlexis in an all-stock transaction with an estimated purchase price of $57.8 million as of December 16, 2022. Under the terms of the agreement, IsoPlexis shareholders will receive 0.612 shares of Berkeley Lights stock for each IsoPlexis share they hold. Following the close of the transaction, Berkeley Lights shareholders will own approximately 75.2 percent of the combined company, and IsoPlexis shareholders will own approximately 24.8 percent of the combined company. The transaction is expected to close in the first quarter of 2023, subject to approval by shareholders of both Berkeley Lights and IsoPlexis and other customary closing conditions.

Fraudulent issuance of shares

In November 2022, we became aware that an unknown third-party ("Bad Actor"), impersonating one of our employees over e-mail through domain spoofing, fraudulently induced our transfer agent ("Transfer Agent") to issue and convey 3.3 million purported shares of our common stock ("Purported Shares"), which shares we believe were subsequently sold on the open market approximately between October 7, 2022, and November 3, 2022.

Our internal controls detected the invalid and unauthorized issuance in connection with its routine procedures. As soon as we detected this issue, we immediately implemented countermeasures to prevent further invalid issuances and launched our own investigation. In addition, after consultation with our legal and forensic advisors, our board of directors decided to report the incident to law enforcement authorities, who requested that we voluntarily delay public disclosure of the incident, subject to our legal and regulatory obligations, while law enforcement took steps to investigate the incident. We also reported the incident to the SEC and informed the SEC that we were actively investigating the matter. We intend to continue to cooperate with law enforcement investigations and actions to pursue the Bad Actor.

In addition, we engaged a third-party cybersecurity firm to conduct an independent investigation of our systems. The forensic investigators concluded that the Bad Actor never gained unauthorized access to our systems, and that the incident was not caused or otherwise facilitated by a breach of our systems.

Working with the Transfer Agent, we have recovered approximately $9.2 million in cash. For accounting purposes, approximately $8.1 million has been recorded as a credit to additional paid-in capital and a financing inflow on the consolidated statement of cash flows, consistent with the accounting as though we had issued the 3.3 million shares through normal channels, as that amount is equal to the trading value of the purported shares at issue as of December 16, 2022. We are accounting for the remaining $1.1 million recovered funds as a reimbursement for legal fees and other expenses it incurred as a result of this incident.

Our Board of Directors ("Board") has determined that the issuance of the Purported Shares, even though it occurred without any involvement or knowledge by us, may be treated as a defective corporate act that involves the issuance of shares of putative stock (as defined in Section 204(h) of the Delaware General Corporation Law) without proper authorization by us ("Defective Act"). The Board determined that, given the uncertainty that the existence of untraceable Purported Shares would pose to our stockholder base as well as to important corporate acts that require stockholder action or participation, it is advisable and in the best interests of us and our stockholders to ratify the Defective Act. Our Amended and Restated Certificate of Incorporation provides a sufficient number of authorized shares of our common stock to ratify the Defective Act. Our Board adopted a resolution ratifying the Defective Act on February 14, 2023

Results of operations

Revenue

(in thousands, except percentages)	Year ended December 31, 2022	Change	2021	Change	2020
Platform	$ 35,794	(23)%	$ 46,362	4 %	$ 44,656
Recurring	24,815	30%	19,156	38 %	13,888
Partnerships	17,986	(9)%	19,870	245 %	5,759
Total revenue	$ 78,595	(8)%	$ 85,388	33 %	$ 64,303

See Note 6 to our consolidated financial statements for additional information regarding how our product and service revenue is generated through our platform, recurring and partnerships revenue streams.

Platform revenue decreased by $10.6 million, or 23%, for the year ended December 31, 2022, compared to the year ended December 31, 2021. During the year ended December 31, 2022 we placed 24 platforms compared to 36 platforms during the year ended December 31, 2021.

Recurring revenue increased by $5.7 million, or 30%, for the year ended December 31, 2022, compared to the year ended December 31, 2021. The increase was primarily driven by an increase of $3.5 million in extended warranty arrangements, a $1.7 million increase in consumable revenue and an increase of $0.5 million in subscription arrangements. These increases were largely driven by an increase in our installed base.

Partnerships revenue decreased by $1.9 million, or 9%, for the year ended December 31, 2022, compared to the year ended December 31, 2021. This decrease is primarily due to our active collaboration agreement with Ginkgo winding down prior to the anticipated contract end date during the third quarter of 2022. We determined we would be unable to reach an agreement with Ginkgo on potential changes to such agreement partly due to the limited margin benefit of the existing agreement to us.

Cost of sales, gross profit and gross margin

(in thousands, except percentages)	Year ended December 31, 2022	Change	2021	Change	2020
Total cost of sales	$ 24,814	(14)%	$ 28,837	46 %	$ 19,748
Gross profit	$ 53,781	(5)%	$ 56,551	27 %	$ 44,555
Gross margin	68 %		66 %		69 %

Cost of sales decreased by $4.0 million, or 14%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The decrease was primarily driven by the decline in revenue and the changes in gross margin disclosed below.

Gross margin for the year ended December 31, 2022 increased compared to the year ended December 31, 2021 primarily due to the winding down of the active collaboration agreement with Ginkgo during the third quarter of 2022. We determined that we would be unable to reach an agreement with Ginkgo partly due to such agreement's limited margin benefit to us and our stated preference for prioritizing higher value projects that support our margin and profitability goals.

Operating expenses

Organizational and presentational changes

During the third quarter of 2022, we made certain changes to our operating structure to align with our new business strategy. These changes included reorganizing our go-to-market efforts, the termination of approximately 12% of our workforce (see Note 14 to our consolidated financial statements for additional information), and additional organizational changes.

As part of these changes, our "service center," a team of scientists and engineers who perform services for both our internal and external projects, is now part of our platform sales and support organization. The service center historically reported to our former Chief Product Officer.

As a result of these changes, we have updated our classification of operating expenses as follows:

1. Expenses related to the termination of employees during the third quarter discussed above are classified in "Restructuring" within Operating Expenses.

2. We now disclose "Selling, general and administrative" expenses, which includes expenses historically reported in "Sales and marketing" as well as "General and administrative" expenses. We have reclassified the prior periods to conform to the current period presentation for this change.

3. Expenses associated with our service center are no longer classified as "Research and development" expenses, and are instead classified as "Selling, general and administrative" expenses on our consolidated statements of operations beginning in the third quarter of 2022.

Service center expenses recorded in "Selling, general and administrative" were $9.0 million during the year ended December 31, 2022 (representing service center expenses from July 1, 2022 to December 31, 2022). Service center expenses recorded in "Research and development" were $9.7 million during the year ended December 31, 2022 (representing service center expenses from January 1, 2022 to June 30, 2022).

Service center expenses recorded in "Research and development" during the years ended December 31, 2021 and 2020, were $12.1 million and $5.6 million, respectively. No historical costs have been reclassified.

	Year ended December 31,				
(in thousands, except percentages)	**2022**	**Change**	**2021**	**Change**	**2020**
Research and development	$ 53,207	(9)%	$ 58,553	24 %	$ 47,240
Selling, general and administrative	95,115	38%	68,787	82 %	37,709
Restructuring	3,513	NM	—	NM	—
Total operating expenses	$ 151,835	19%	$127,340	50 %	$ 84,949

NM - Not meaningful

Operating expenses increased by $24.5 million, or 19%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The increase was primarily due to higher personnel costs, due to higher average headcount, higher depreciation expense and increased costs to support our operations.

Research and development expense decreased by $5.3 million, or 9%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. The decrease was primarily due to decreased personnel costs, and other cost reductions that occurred in the third quarter of 2022 described above. Research and development also decreased due to the change in the classification of service center costs described above.

Selling, general and administrative expense increased by $26.3 million, or 38%, for the year ended December 31, 2022 compared to the year ended December 31, 2021. This increase was primarily due to an increase in personnel expenses, increased legal fees and increased costs to support our operations. This increase also reflects $9.0 million of service center expenses that are now classified as selling, general and administrative expenses starting with the third quarter of 2022 as discussed above.

Interest expense

	Year ended December 31,				
(in thousands, except percentages)	**2022**	**Change**	**2021**	**Change**	**2020**
Interest expense	$ 910	(22)%	$ 1,171	(18)%	$ 1,436

Interest expense decreased by $0.3 million for the year December 31, 2022 compared to the year ended December 31, 2021, as a result of refinancing our loan from East West Bank on June 30, 2021, which now carries a lower interest rate.

Interest income

	Year ended December 31,				
(in thousands, except percentages)	**2022**	**Change**	**2021**	**Change**	**2020**
Interest income	$ 1,270	626%	$ 175	(48)%	$ 338

Interest income increased $1.1 million for the year ended December 31, 2022, compared to the year ended December 31, 2021. The increase was primarily the result of higher yields received on our cash management program.

Other income (expense), net

	Year ended December 31,				
(in thousands, except percentages)	**2022**	**Change**	**2021**	**Change**	**2020**
Other income (expense), net	$ (246)	(4200)%	$ 6	(93)%	$ 82

Other income for the years ended December 31, 2022 and 2021 was mainly comprised of foreign exchange gains and losses and other miscellaneous income and expense items.

Components of results of operations

Revenue

Our revenue consists of platform, recurring and partnerships revenue. Platform revenue consists of the sale of advanced automation systems (including the Beacon, Lightning and Culture Station), associated software, fixed-term sales-type lease arrangements with qualified customers, as well as application support, installation and training. Recurring revenue includes quarterly workflow subscriptions, annual or multi-year subscriptions arrangements (e.g. TechAccess), and fixed fee extended warranty and service programs. Partnerships revenue consists of strategic partnerships, as well as joint development and collaboration agreements where we provide services for the development of new workflows, cells or organism types. See Note 6 to our consolidated financial

statements for additional information regarding how our product and service revenue is generated through our platform, recurring and partnerships revenue streams.

Cost of sales, gross profit and gross margin

Cost of sales. Cost of sales includes manufacturing related costs incurred in the production process, including personnel and related costs, costs of component materials, labor and overhead, packaging and delivery costs and allocated costs, including facilities and information technology. Also included in cost of sales are the personnel and related costs associated with our services, expenses related to the development of customized platforms and workflows, feasibility studies on our platforms and service and warranty costs to support our customers. We also include the costs associated with the standard assurance-type product warranty provided on our platforms, which are recorded at the time of sale.

Gross profit and gross margin. Gross profit is calculated as revenue less cost of sales. Gross margin is gross profit expressed as a percentage of revenue. Our gross profit in future periods will depend on a variety of factors, including: market conditions that may impact our pricing; sales mix among platform access options, including the regional mix of sales; sales mix changes among consumables, advanced automation systems and services; product mix changes between established products and new products; excess and obsolete inventories; our cost structure for manufacturing operations relative to volume; and product warranty obligations. We expect cost of sales to increase in absolute dollars in future periods as our revenue grows.

Operating expenses

Research and development. Research and development costs primarily consist of salaries, benefits, incentive compensation, stock-based compensation, laboratory supplies, materials expenses and allocated facilities and IT costs for employees and contractors engaged in research and product development. We expense all research and development costs in the period in which they are incurred.

Selling, general and administrative. Our selling, general and administrative expenses primarily consist of costs related to the selling and marketing of our products and services and costs associated with our executive, finance, accounting, legal, human resources and administrative functions. These costs include salaries, benefits, sales commissions and stock-based compensation for our employees, as well as advertising and marketing costs and professional services fees, such as consulting, audit, tax and legal fees, general corporate costs and allocated overhead expenses. We expect these expenses to vary from period to period as a percentage of revenue.

*Restructuring. R*estructuring expense consists of charges associated with management-approved restructuring plans and includes one-time cash severance benefits to reduce a specified number of employees, infrastructure charges to vacate facilities and contract cancellation costs. (See Note 14 to our consolidated financial statements for additional information).

Other income (expense)

Interest expense. Interest expense consists primarily of interest related to borrowings under our debt obligations.

Interest income. Interest income primarily consists of interest earned on our cash, cash equivalents and short-term available-for-sale debt securities.

Other income (expense), net. Other income (expense), net consists primarily of foreign currency exchange gains and losses and other miscellaneous income and expense. Foreign currency exchange gains and losses relate to transactions and asset and liability balances denominated in currencies other than the U.S. dollar, primarily related to our operations in the United Kingdom and China. We expect our foreign currency gains and losses to continue to fluctuate in the future due to changes in foreign currency exchange rates.

Provision for income taxes

Our provision for income taxes consists primarily of foreign taxes and state taxes in the United States. The Company maintains a full valuation allowance on its deferred tax assets and intends to do so until there is sufficient evidence to support the reversal of all or some portion of these allowances. As we expand the scale and scope of our international business activities, any changes in taxation of such activities may increase our overall provision for income taxes in the future.

Liquidity and capital resources

As of December 31, 2022, we had approximately $132.8 million in cash and cash equivalents and marketable securities which were primarily held in U.S. short-term bank deposit accounts and investment grade short-term available-for-sale debt securities. Restricted cash at December 31, 2021 of $0.3 million served as collateral for our corporate credit card program. This amount is no longer restricted. We have generated negative cash flows from operations since inception through December 31, 2022.

We expect to incur additional operating losses in the foreseeable future as we continue to invest in the research and development of our product offerings, commercialize and launch platforms, and expand into new markets. Our future capital requirements will depend on many factors including our revenue growth rate, research and development efforts, the timing and extent of additional capital expenditures to invest in existing and new facilities as well as our manufacturing operations, the expansion of sales and marketing and the introduction of new products. Our future capital needs may also depend upon the impacts of the COVID-19 pandemic, geopolitical conditions and other factors affecting the macroeconomic environment. We have and may in the future enter into arrangements to acquire or invest in businesses, services and technologies, and any such acquisitions or investments could significantly increase our capital needs.

Based on our current business plan, we believe our existing cash and cash equivalents and anticipated cash flows from operations will be sufficient to meet our working capital and capital expenditure needs over at least the next 12 months from the issue date of this Annual Report.

Sources of liquidity

Since our inception, we have financed our operations primarily from the issuance and sale of our equity securities, borrowings under long-term debt agreements, and to a lesser extent, cash generated by product and service sales. In July 2020, we completed our IPO, resulting in the receipt of aggregate proceeds of $187.9 million, net of offering costs, underwriter discounts and commissions of $17.0 million.

East West Bank Loan and Security Agreement

On May 23, 2018, we entered into a Loan Agreement with EWB pursuant to which EWB agreed to provide a $20.0 million term loan facility ("Term Loan"). The Term Loan was fully drawn as of May 23, 2018.

On June 30, 2021, we entered into an Amended Loan Agreement with EWB. Pursuant to the Amended Loan Agreement, EWB provided a $20.0 million term loan ("Amended Term Loan") which was used to refinance the Term Loan outstanding under the Loan Agreement dated May 23, 2018. The Amended Term Loan matures in 48 months and bears interest at a fixed rate of 4.17%. The Amended Term Loan has an initial interest-only period of 24 months, which can be extended to up to 36 months based on the achievement of certain liquidity measures, and can be pre-paid without penalty at any time.

The Amended Loan Agreement grants EWB a security interest in and liens on all of our assets, excluding intellectual property, which is subject to a double negative pledge. In addition, certain other terms of the original agreements as previously in effect were amended by the Amended Loan Agreement, including certain financial covenants. The Amended Term Loan was accounted for as a debt modification and we capitalized incremental debt issuance costs.

Furthermore, the Amended Loan Agreement also provided us with a new $10.0 million revolving credit ("Revolving Line"), which bears interest on the outstanding daily balance thereof of 0.70% above the Prime Rate

(as defined in the Amended Loan Agreement). No amounts were outstanding under the Revolving Line as of December 31, 2022 and 2021.

The Amended Loan Agreement contains certain financial and non-financial covenants. As of December 31, 2022, we were in compliance with the terms and covenants of the Amended Term Loan.

Cash flows

The following table summarizes our cash flows for the periods presented:

	Year ended December 31,		
(in thousands)	**2022**	**2021**	**2020**
Net cash (used in) provided by:			
Operating activities	$ (47,539)	$ (53,128)	$ (35,852)
Investing activities	(53,982)	(15,825)	(3,289)
Financing activities	9,677	13,641	191,516
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ (91,844)	$ (55,312)	$ 152,375

Operating activities

Net cash used in operating activities during the year ended December 31, 2022 was primarily due to a net loss of $98.0 million, partially offset by non-cash adjustments of $37.0 million, mainly consisting of stock-based compensation and depreciation expense, and a net cash inflow from changes in our operating assets and liabilities of $13.5 million, primarily due to a decrease in our accounts receivable and prepaid expenses and an increase in accrued liabilities, partially offset by a decrease in deferred revenue.

Net cash used in operating activities during the year ended December 31, 2021 was primarily due to a net loss of $71.7 million and a net cash outflow from changes in operating assets and liabilities of $11.4 million, partially offset by non-cash adjustments, mainly consisting of depreciation expense and stock-based compensation. The net cash outflow from operating assets and liabilities was primarily due to an increase in inventory to support revenue growth, an increase in accounts receivable due both to an increase in revenue and the timing of invoicing, partially offset by an increase in deferred revenue, accrued expenses and other current liabilities and accounts payable due to the timing of advanced billings and revenue recognition as well as the timing of vendor invoicing and related payments.

Investing activities

Net cash used in investing activities of $54.0 million during the year ended December 31, 2022 was attributable to the net purchase of $45.9 million of available-for-sale marketable securities and $8.1 million of purchases of property, plant and equipment. Capital expenditures for fiscal 2022 primarily consisted of Beacons purchased for our BioFoundry laboratory operations.

Net cash used in investing activities of $15.8 million during the year ended December 31, 2021 was primarily driven by $15.8 million of purchases of property, plant and equipment. Capital expenditures for fiscal 2021 included the expansion of our research and development and BioFoundry laboratory operations to support current and planned programs.

Financing activities

Net cash provided by financing activities was $9.7 million for the year ended December 31, 2022, compared to $13.6 million for the year ended December 31, 2021. Net cash provided by financing activities during the year ended December 31, 2022 was primarily related to the recovery of approximately $8.1 million in cash related to the sale of 3.3 million purported shares of our common stock (see also Note 12 to our consolidated financial statements for additional information) and proceeds from the issuance of common stock under our employee equity programs.

Net cash provided by financing activities during the year ended December 31, 2021 primarily related to proceeds received from the issuance of common stock upon the exercise of stock options as well as proceeds received related

to the issuance of common stock under our employee stock purchase plan, partially offset by the payment of debt issuance costs.

Concentration of credit risk

For the year ended December 31, 2022, one customer accounted for 19% of revenue. For the year ended December 31, 2021, three customers accounted for 19%, 11% and 10% of revenue. Two customers accounted for 24%, and 11% of accounts receivable at December 31, 2022. Three customers comprised 15%, 11% and 11% of accounts receivable at December 31, 2021.

Contractual Obligations and Commitments

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

	Payments due by period				
(in thousands)	**Total**	**Less than 1 year**	**1 - 3 years**	**3 -5 years**	**More than 5 years**
Debt obligations, including interest (1)	$ 21,304	$ 5,801	$ 15,503	$ —	$ —
Lease commitments (2)	30,294	4,419	9,031	9,380	7,464
Purchase Obligations (3)	36,728	28,652	8,076	—	—
Total	$ 88,326	$ 38,872	$ 32,610	$ 9,380	$ 7,464

(1) As of December 31, 2022, the outstanding balance of our term loan under the EWB Loan Agreement was $20.0 million. Borrowings under the term loan mature on June 30, 2025 and accrue interest at a fixed rate of 4.17% per annum.

(2) Represents commitments under our non-cancelable office leases.

(3) Purchase obligations relate primarily to our contract manufacturer which manufactures our instruments and makes advance purchases of components based on our sales forecasts and the placement of property by us, as well as the commitments made to certain providers of components of our consumable manufacturing. To the extent components are purchased by the contract manufacturer on our behalf and cannot be used by the contract manufacturer's other customers, we are obligated to purchase such components.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any off-balance sheet financing arrangements or any relationships with unconsolidated entities or financial partnerships, including entities sometimes referred to as structured finance or special purpose entities, that were established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Critical Accounting Policies and Estimates

Our consolidated financial statements and the related notes thereto included elsewhere in this Annual Report are prepared in accordance with accounting principles generally accepted in the United States of America, or GAAP. The preparation of consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue, costs and expenses and related disclosures. We evaluate our estimates and judgements on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could differ materially from these estimates under different assumptions or conditions. To the extent that there are differences between our estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected.

We believe that the accounting policies described below involve a significant degree of judgment and complexity. Accordingly, we believe these are the most critical to aid in fully understanding and evaluating our consolidated financial condition and results of operations. For further information, see Note 2 of the Notes to the Consolidated Financial Statements included in Part II, Item 8 of this Annual Report.

Revenue recognition

We derive revenue from primarily two sources, product and service revenues, which are discussed further below.

Our agreements with customers often include multiple performance obligations, which can sometimes be included in separate contracts entered into within a reasonably short period of time. We consider an entire customer arrangement to determine if separate contracts should be considered combined for the purposes of revenue recognition. Management must apply judgment in determining whether the individual promises represent multiple performance obligations, or a single, combined performance obligation.

In order to determine the stand-alone selling price, we conduct a periodic analysis to determine whether various goods or services have an observable stand-alone selling price as well as to identify significant changes to current stand-alone selling prices. If we do not have an observable stand-alone selling price for a particular good or service, then the stand-alone selling price for that particular good or service is estimated using an approach that maximizes the use of observable inputs. Our process for determining stand-alone selling price requires judgment and considers multiple factors that are reasonably available and maximizes the use of observable inputs that may vary over time depending upon the unique facts and circumstances related to each performance obligation. We believe that this method results in an estimate that represents the price we would charge for the product offerings if they were sold separately.

The Company only includes variable consideration in the transaction price to the extent that it is not probable that a significant reversal of revenue will occur for that amount. The constraint estimate is reassessed at each reporting date until the uncertainty is resolved.

Product revenues

Product revenues are comprised of two major revenue streams, platform sales and consumables. Platform sales revenues are comprised of advanced automation systems, which include the Beacon and Lightning systems (including fully paid workflow licenses) as well as Culture Station instruments. Consumables revenues are comprised of OptoSelect chips required to run the system as well as reagent kits. Platform sales also include revenue from certain historical subscription arrangements in which customers are able to subscribe to a specific workflow and pay a quarterly fee over a fixed period of time which covers the annual workflow license, the advanced automation system, as well as warranty and service. While the majority of our revenue under our TechAccess subscription falls into the service category, consumables and certain other deliverables under TechAccess subscription are categorized as product revenue. Our standard arrangement with our customers is generally a purchase order or an executed contract. Revenue on product sales is recognized when control has transferred to the customer which typically occurs when the product has been shipped to the customer, risk of loss has transferred to the customer and we have a present right to payment for the system, chip or kit, as applicable. In certain limited circumstances when a product sale includes client acceptance provisions, we will first assess such terms to determine if the control of the good is being transferred to the customer in accordance with the agreed-upon specifications in the contract. To the extent that such acceptance provisions can be objectively determined to be aligned with the standard specifications of the arrangement, are defined and easily evaluated for completion, as well as do not afford the customer any additional rights or create additional performance obligations for us, such provisions would be determined perfunctory and would not preclude revenue recognition presuming all other criteria are met. If such acceptance provisions are considered to be substantive, revenue is recognized either when client acceptance has been obtained, client acceptance provisions have lapsed, or we have objective evidence that the criteria specified in the client acceptance provisions have been satisfied.

Service revenues

Service revenues primarily consist of strategic partnerships and services agreements, service and warranty, training and installation services, platform support and feasibility studies on our advanced automation systems and workflows. Strategic partnerships and services agreements are agreements whereby we provide services for, among other things, the development of customized workflows, screening capabilities, or for customized consumables or advanced automation systems to meet a specific customer's needs. These contracts can be executed on a time-and-materials basis and in certain cases include defined milestones associated with these development activities over

extended periods of time, some in excess of twenty-four months. Our services are generally provided primarily on a fixed fee basis with defined billing schedules. We review strategic partnerships and services agreements for revenue recognition at contract inception and generally recognizes revenue from these contracts over time, using either an input measure of progress based on costs incurred to date relative to total expected costs or on a time and materials basis.

We recognize revenue from the sale of extended warranty and enhanced service warranty arrangements over the respective period, while revenue on feasibility studies is recognized over time, using an input measure of progress based on costs incurred to date relative to total expected costs. Revenue on platform support is recognized as the services are performed. Service contracts are typically short-term in nature. Payment terms are generally thirty to ninety days from the date of invoicing.

Stock-based compensation

We maintain an incentive compensation plan under which stock options and restricted stock units ("RSUs") are granted to employees, non-employee consultants and directors.

Stock-based compensation expense is calculated based on the grant date fair value of the award. We determine the fair value of RSUs based on the closing price of our common stock as reported by Nasdaq on the date of the grant.

We estimate the fair value of the majority of stock option awards on the grant date using the Black-Scholes option-pricing model. For option awards that include a goal tied to the Company share price (i.e. a market condition) we use a Monte Carlo simulation to estimate the fair value.

The fair value of stock options and RSUs with only a service condition is recognized as compensation expense on a straight-line basis over the requisite service period in which the awards are expected to vest and forfeitures are recognized as they occur.

Stock options and RSUs that include a service condition and a performance condition are considered expected to vest when the performance condition is probable of being met. Compensation expense associated with performance awards that are determined to be probable of achievement is recognized over the requisite service period on a tranche-by-tranche basis.

For performance stock options and RSUs not initially assessed as probable of achievement, we record a cumulative adjustment to compensation expense in the period we change our determination that a performance condition becomes probable of being achieved. We cease recognition of compensation expense in any periods where we determine the attainment of a performance condition is no longer probable. If the performance goals are determined to be improbable, any previously recognized compensation expense is reversed.

The fair value of stock options with a market condition is recognized over the requisite service period for each tranche of the award and is recognized regardless of whether (or to what extent) the market condition is ultimately achieved.

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

Not applicable to a "smaller reporting company" as defined in Rule 12b-2 of the Exchange Act.

Item 8. Financial Statements and Supplementary Data.

Berkeley Lights, Inc.

Index to consolidated financial statements

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors
Berkeley Lights, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Berkeley Lights, Inc. and subsidiaries (the Company) as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive loss, changes in stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

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

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

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

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Identification of performance obligations in the Company's revenue agreements with customers

As discussed in Notes 2 and 6 to the consolidated financial statements, the Company derives revenue from two sources, products and services. The Company's agreements with customers often include multiple performance obligations. Management must apply judgment in determining whether the individual promises represent multiple performance obligations, or a single, combined performance obligation. The Company reported product revenue and service revenue of $48.9 million and $29.7 million, respectively, for the year ended December 31, 2022.

We identified the evaluation of the Company's identification of performance obligations as a critical audit matter. Evaluating whether the Company's promise to transfer a good or service is separately identifiable and constitutes a performance obligation required subjective and complex auditor judgment due to the varying nature and number of the promises and the underlying contractual terms.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design of an internal control related to the Company's review of customer contracts for the identification of performance obligations. For a sample of the Company's revenue contracts, we (1) read the agreement to understand the contractual terms and conditions, (2) evaluated the identification of performance obligations in each arrangement by considering the nature of the promises within the contract, and (3) evaluated whether the performance obligations were separately identifiable from other promised goods and services.

/s/ KPMG LLP

We have served as the Company's auditor since 2015.

San Francisco, California
February 23, 2023

Berkeley Lights, Inc.
Consolidated balance sheets

(In thousands, except share and per share data)	December 31, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 86,522	$ 178,096
Short-term marketable securities	46,252	—
Trade accounts receivable	18,534	25,942
Inventory	18,861	14,547
Prepaid expenses and other current assets	6,783	11,985
Total current assets	176,952	230,570
Restricted cash	—	270
Property and equipment, net	23,847	27,992
Operating lease right-of-use assets	23,326	26,060
Other assets	1,969	2,361
Total assets	$ 226,094	$ 287,253
Liabilities and Stockholders' Equity		
Current liabilities:		
Trade accounts payable	$ 10,092	$ 8,198
Accrued expenses and other current liabilities	21,340	12,425
Current portion of notes payable	4,966	—
Deferred revenue	9,092	12,128
Total current liabilities	45,490	32,751
Notes payable, net of current portion	14,860	19,762
Deferred revenue, net of current portion	963	2,187
Lease liability, long-term	22,726	24,337
Total liabilities	84,039	79,037
Commitments and contingencies (Note 17)		
Stockholders' equity:		
Convertible preferred stock, $0.00005 par value. Authorized 10,000,000 shares at December 31, 2022 and 2021, respectively; no shares issued and outstanding at December 31, 2022 and 2021	—	—
Common stock, $0.00005 par value. Authorized 300,000,000 shares at December 31, 2022 and 2021, respectively; issued and outstanding 72,169,052 [(1)] shares and 67,595,535 shares at December 31, 2022 and 2021, respectively	4	4
Additional paid-in capital	503,708	471,820
Accumulated deficit	(361,648)	(263,608)
Accumulated other comprehensive loss	(9)	—
Total stockholders' equity	142,055	208,216
Total liabilities and stockholders' equity	$ 226,094	$ 287,253

(1) See Note 12 for further information.

See accompanying notes to consolidated financial statements.

Berkeley Lights, Inc.
Consolidated statements of operations

(In thousands, except share and per share data)	Year ended December 31, 2022	2021	2020
Revenue:			
Product revenue	$ 48,930	$ 56,575	$ 51,586
Service revenue	29,665	28,813	12,717
Total revenue	78,595	85,388	64,303
Cost of sales:			
Product cost of sales	14,261	14,857	13,021
Service cost of sales	10,553	13,980	6,727
Total cost of sales	24,814	28,837	19,748
Gross profit	53,781	56,551	44,555
Operating expenses:			
Research and development	53,207	58,553	47,240
Selling, general and administrative	95,115	68,787	37,709
Restructuring	3,513	—	—
Total operating expenses	151,835	127,340	84,949
Loss from operations	(98,054)	(70,789)	(40,394)
Other income (expense):			
Interest expense	(910)	(1,171)	(1,436)
Interest income	1,270	175	338
Other income (expense), net	(246)	6	82
Loss before income taxes	(97,940)	(71,779)	(41,410)
Provision for (benefit from) income taxes	100	(55)	174
Net loss	$ (98,040)	$ (71,724)	$ (41,584)
Net loss attributable to common stockholders per share, basic and diluted	$ (1.42)	$ (1.08)	$ (1.39)
Weighted-average shares used in calculating net loss per share, basic and diluted (Note 18)	68,868,596	66,707,129	31,192,752

See accompanying notes to consolidated financial statements

Berkeley Lights, Inc.
Consolidated statements of comprehensive loss

(In thousands)	Year ended December 31, 2022	2021	2020
Net loss	$ (98,040)	$ (71,724)	$ (41,584)
Other comprehensive loss:			
Unrealized loss on marketable securities, net of tax	(9)	—	—
Other comprehensive loss	(9)	—	—
Comprehensive loss	$ (98,049)	$ (71,724)	$ (41,584)

See accompanying notes to consolidated financial statements

Berkeley Lights, Inc.
Consolidated statements of changes in stockholders' equity

(in thousands, except share data)	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balances at December 31, 2019	50,462,272	$ 224,769	3,073,067	$ —	$ 9,314	$ (150,300)	$ —	$ 83,783
Conversion of convertible preferred stock into common stock	(50,462,272)	(224,769)	50,462,272	3	224,766	—	—	—
Issuance of common stock upon initial public offering, net of issuance costs	—	—	9,315,000	—	187,935	—	—	187,935
Cashless exercise of common stock warrants	—	—	123,192	—	—	—	—	—
Shares issued in connection with:								
Exercise of stock options	—	—	1,512,715	—	3,585	—	—	3,585
Vesting of shares subject to repurchase from early exercised options	—	—	—	—	328	—	—	328
Stock-based compensation	—	—	—	—	10,734		—	10,734
Net loss	—	—	—	—	—	(41,584)	—	(41,584)
Balances at December 31, 2020	—	$ —	64,486,246	$ 3	$ 436,662	$ (191,884)	$ —	$ 244,781
Exercise of stock options	—	—	2,882,470	1	10,296	—	—	10,297
Vesting of restricted stock units	—	—	63,811	—	—	—	—	—
Employee stock purchase plan	—	—	163,008	—	3,644	—	—	3,644
Stock-based compensation	—	—	—	—	21,218	—	—	21,218
Net loss	—	—	—	—	—	(71,724)	—	(71,724)
Balances at December 31, 2021	—	$ —	67,595,535	$ 4	$ 471,820	$ (263,608)	$ —	$ 208,216
Shares issued in connection with:								
Exercise of stock options	—	—	299,173	—	840	—	—	840
Vesting of restricted stock units	—	—	823,620	—	—	—	—	—
Employee stock purchase plan	—	—	150,724	—	719	—	—	719
Purported issuance of shares (1)	—	—	3,300,000	—	8,118	—	—	8,118
Stock-based compensation	—	—	—	—	22,211	—	—	22,211
Other comprehensive loss	—	—	—	—	—	—	(9)	(9)
Net loss	—	—	—	—	—	(98,040)	—	(98,040)
Balances at December 31, 2022	—	$ —	72,169,052	$ 4	$ 503,708	$ (361,648)	$ (9)	$ 142,055

(1) See Note 12 for further information.

See accompanying notes to consolidated financial statements.

Berkeley Lights, Inc.
Consolidated statements of cash flows

(in thousands)	Year ended December, 31 2022	2021	2020
Cash flows from operating activities:			
Net loss	$ (98,040)	$ (71,724)	$ (41,584)
Adjustments to reconcile net loss to cash used in operating activities:			
Depreciation	9,004	5,598	5,102
Stock-based compensation	22,194	21,222	10,917
Amortization of operating lease right-of-use assets	3,120	2,327	1,691
Non-cash interest and other expense related to debt and note receivable agreements	64	67	68
Provision for excess and obsolete inventory	336	678	32
Net losses on disposal of long-lived assets	78	60	140
Non-cash restructuring	2,348	—	—
Other non-cash	(98)	—	—
Changes in operating assets and liabilities:			
Trade accounts receivable	7,409	(13,003)	(3,605)
Inventory	(1,954)	(6,635)	(4,226)
Prepaid expenses, other current assets and other assets	3,400	(3,513)	(1,793)
Trade accounts payable	2,699	3,878	373
Deferred revenue	(4,260)	7,124	(3,955)
Accrued expenses and other current liabilities	7,808	2,991	2,655
Operating lease liability	(1,647)	(2,198)	(1,667)
Net cash used in operating activities	(47,539)	(53,128)	(35,852)
Cash flows from investing activities:			
Purchase of property and equipment	(8,076)	(15,825)	(3,289)
Purchase of marketable securities	(64,827)	—	—
Proceeds from maturities of marketable securities	18,921	—	—
Net cash used in investing activities	(53,982)	(15,825)	(3,289)
Cash flows from financing activities:			
Proceeds from issuance of common stock upon initial public offering, net	—	—	190,585
Payment of issuance costs	—	—	(2,650)
Purported share issuance (1)	8,118	—	—
Debt issuance costs	—	(300)	—
Proceeds from issuance of common stock upon exercise of stock options	840	10,297	3,581
Proceeds from issuance of common stock under employee stock purchase plan	719	3,644	—
Net cash provided by financing activities	9,677	13,641	191,516
Net increase (decrease) in cash and cash equivalents and restricted cash	(91,844)	(55,312)	152,375
Cash and cash equivalents and restricted cash at beginning of period	178,366	233,678	81,303
Cash and cash equivalents and restricted cash at end of period	$ 86,522	$ 178,366	$ 233,678

(1) See Note 12 for further information.

See accompanying notes to consolidated financial statements.

(1) The company and basis of presentation

Description of business

Berkeley Lights, Inc. (the "Company" or "Berkeley Lights"), was incorporated as a Delaware corporation on April 5, 2011. Berkeley Lights is a leading functional cell biology company focused on enabling and accelerating the rapid development and commercialization of biotherapeutics and other cell-based products. Berkeley Lights' platform is a fully integrated, end-to-end solution, comprised of proprietary consumables, including the Company's OptoSelect chips and reagent kits, advanced automation systems and advanced application and workflow software.

The Company commercially launched its platform in December of 2016, which included its Beacon system and the alpha version of its Opto Cell Line Development 1.0 workflow, targeted to the antibody therapeutics market. The Company is expanding the capabilities of its platform through the commercial launch of additional workflows in its core markets of antibody therapeutics, cell line development, gene therapy, TCR discovery and agricultural biology.

Basis of presentation

The accompanying consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America, or GAAP.

Liquidity

The Company has experienced losses from its operations since its inception and has relied primarily on equity and debt financing to fund its operations to date. For the year ended December 31, 2022, the Company had a consolidated net loss of $98.0 million and as of December 31, 2022, had an accumulated deficit of $361.6 million and cash, cash equivalents and marketable securities of $132.8 million. Management expects to continue to incur significant expenses for the foreseeable future and to incur operating losses in the near term while the Company makes investments to support its anticipated growth. The Company believes that its cash, cash equivalents and marketable securities balance as of December 31, 2022 provides sufficient capital resources to continue its operations for at least 12 months from the issuance date of the accompanying consolidated financial statements.

Organizational and presentational changes

During the third quarter of 2022, the Company made certain changes to its operating structure to align with its new business strategy. These changes included reorganizing the Company's go-to-market efforts, the termination of approximately 12% of its workforce (see Note 14 for additional information), and additional organizational changes.

As part of these changes, the Company's "service center," a team of scientists and engineers who perform services for both internal and external projects, is now part of the Company's platform sales and support organization. The service center historically reported to the Company's former Chief Product Officer.

As a result of these changes, the Company updated its classification of operating expenses as follows:

1. Expenses related to the termination of employees during the third quarter discussed above are classified in "Restructuring" within Operating Expenses.

2. The Company now discloses "Selling, general and administrative" expenses, which includes expenses historically reported in "Sales and marketing" as well as "General and administrative" expenses. The Company has reclassified the prior periods to conform to the current period presentation for this change.

3. Expenses associated with the Company's service center are no longer classified as "Research and development" expenses, and instead are classified as "Selling, general and administrative" expenses on the Company's consolidated statements of operations beginning in the third quarter of 2022.

Service center expenses recorded in "Selling, general and administrative" were $9.0 million during the year ended December 31, 2022 (representing service center expenses from July 1, 2022 to December 31, 2022). Service center expenses recorded in "Research and development" were $9.7 million during the year ended December 31, 2022 (representing service center expenses from January 1, 2022 to June 30, 2022).

Service center expenses recorded in "Research and development" during the years ended December 31, 2021 and 2020, were $12.1 million and $5.6 million, respectively. No historical costs have been reclassified.

Reverse stock split

On July 10, 2020, the Board of Directors ("Board") of the Company approved a 1-for-2 reverse stock split of its issued and outstanding common stock and convertible preferred stock, which was effected on July 14, 2020. The par value of the authorized stock was not adjusted as a result of the reverse stock split. Other than the par value, all share and per share data shown in the accompanying consolidated financial statements and related notes have been retroactively adjusted to reflect the reverse stock split for all periods presented.

Initial public offering

The Company's registration statement on Form S-1 related to its initial public offering ("IPO") was declared effective on July 16, 2020 by the Securities and Exchange Commission ("SEC"), and the Company's common stock began trading on the Nasdaq Global Select Market on July 17, 2020. On July 21, 2020, the Company closed its IPO, in which the Company sold 9,315,000 shares of common stock (which included 1,215,000 shares that were sold pursuant to the full exercise of the IPO underwriters' option to purchase additional shares) at a price to the public of $22.00 per share. Including the option exercise, the Company received aggregate net proceeds of $187.9 million after deducting offering costs, underwriting discounts and commissions of $17.0 million.

Immediately prior to the completion of the IPO, 50,462,272 shares of convertible preferred stock then outstanding converted into an equivalent number of shares of common stock.

(2) Summary of significant accounting policies

Principles of consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All intercompany accounts and 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 disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include the estimate of the standalone selling price of performance obligations and allocation of contract price in multiple-element revenue arrangements, total expected costs associated with development agreements, estimated transaction price, including variable consideration, of the Company's revenue contracts, accruals for product warranties, the fair value of equity awards and related share-based compensation, the collectability of accounts receivable, impairment of long-lived assets, valuation of inventory and the realizability of deferred income taxes. Actual results could significantly differ from those estimates.

Cash and cash equivalents and restricted cash

The Company considers all highly liquid investments with a maturity of three months or less when purchased to be cash equivalents.

The Company records cash and cash equivalents as restricted when it is unable to freely use such cash and cash equivalents for general operating purposes. As of December 31, 2021, restricted cash consisted of cash on deposit in a financial institution that was restricted to be used for the Company's corporate credit card program.

The following table provides a reconciliation of cash and cash equivalents and restricted cash on the consolidated balance sheets to the totals presented on the consolidated statements of cash flows (in thousands):

	December 31,	
	2022	2021
Cash	$ 63,596	$ 152,958
Cash equivalents	22,926	25,138
Restricted cash	—	270
Total cash and cash equivalents and restricted cash as presented on the consolidated statements of cash flows	$ 86,522	$ 178,366

Short-Term Marketable Securities

The Company designates investments in debt securities as available-for-sale. Available-for-sale debt securities with original maturities of three months or less from the date of purchase are classified within cash and cash equivalents. Available-for-sale debt securities with original maturities longer than three months are available to fund current operations and are classified as marketable securities within "current assets" on the Company's consolidated balance sheets. The Company records these securities at fair value and accounts for the net unrealized gains and losses related to them as part of "other comprehensive income (loss)" on its consolidated statement of comprehensive loss. The Company records realized gains and losses on the sale of its marketable securities in "Other expense, net" in its consolidated statement of operations.

At each reporting date, the Company performs an evaluation of impairment of its short-term available-for-sale marketable debt securities to determine if the fair value of its investment is less than its amortized cost basis. Impairment is assessed at the individual security level. Factors considered in determining whether an investment is impaired include the Company's intent and ability to hold the investment until the recovery of its amortized cost basis, any historical failure of the issuer to make scheduled interest or principal payments, any change to the rating of the security by a rating agency, any adverse legal or regulatory events affecting the issuer or issuer's industry, and any significant deterioration in economic conditions.

Trade accounts receivable

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The Company maintains an allowance for doubtful accounts for estimated losses inherent in its accounts receivable portfolio. In establishing the required allowance and expected credit losses related to its receivables, management considers historical losses adjusted to take into account current market and economic conditions and the Company's customers' respective financial conditions, the amounts of receivables in dispute and the current receivables aging and current payment patterns. To the extent identified, account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. To date its customers have primarily been large biopharmaceutical companies, well known research institutes and related companies and therefore the Company has not had any material write-offs or allowance for doubtful accounts in the years ended December 31, 2022 and 2021.

Inventory

Inventories are recorded at the lower of cost, determined on a first-in, first-out basis, or net realizable value. Inventory that is obsolete or in excess of forecasted usage is written down to its estimated net realizable value based on assumptions about future demand and market conditions. Inventory write-downs are charged to cost of goods sold and establish a new cost basis for the inventory. Costs included in inventories are raw materials, labor, supplies, allocable depreciation of manufacturing facilities, equipment and overhead.

Revenue recognition

The Company derives revenue from primarily two sources, product and service revenues, which are discussed further below.

The Company's agreements with customers often include multiple performance obligations, which can sometimes be included in separate contracts entered into within a reasonably short period of time. The Company considers an entire customer arrangement to determine if separate contracts should be considered combined for the purposes of revenue recognition. Management must apply judgment in determining whether the individual promises represent multiple performance obligations, or a single, combined performance obligation.

In order to determine the stand-alone selling price, the Company conducts a periodic analysis to determine whether various goods or services have an observable stand-alone selling price as well as to identify significant changes to current stand-alone selling prices. If the Company does not have an observable stand-alone selling price for a particular good or service, then the stand-alone selling price for that particular good or service is estimated using an approach that maximizes the use of observable inputs. The Company's process for determining stand-alone selling price requires judgment and considers multiple factors that are reasonably available and maximizes the use of observable inputs that may vary over time depending upon the unique facts and circumstances related to each performance obligation. The Company believes that this method results in an estimate that represents the price the Company would charge for the product offerings if they were sold separately.

The Company only includes variable consideration in the transaction price to the extent that it is not probable that a significant reversal of revenue will occur for that amount. The constraint estimate is reassessed at each reporting date until the uncertainty is resolved.

Taxes, such as sales, value-add and other taxes, collected from customers concurrent with revenue generating activities and remitted to governmental authorities are not included in revenue. Shipping and handling costs associated with outbound freight are accounted for as a fulfillment cost and are included in cost of sales.

In certain markets, the Company's products are sold to customers primarily through distributors. The terms of sales transactions to the Company's distributors are substantially consistent with the terms of the Company's direct sales to end customers.

Product revenues

Product revenues are comprised of two major revenue streams, platform sales and consumables. Platform sales revenues are comprised of advanced automation systems, which include the Beacon and Lightning systems (including fully paid workflow licenses) as well as Culture Station instruments. Consumables revenues are comprised of OptoSelect chips required to run the system as well as reagent kits. Platform sales also include revenue from certain historical subscription arrangements in which customers are able to subscribe to a specific workflow and pay a quarterly fee over a fixed period of time which covers the annual workflow license, the advanced automation system, as well as warranty and service. While the majority of the Company's revenue under its TechAccess subscription falls into the service category, consumables and certain other deliverables under TechAccess subscription are categorized as product revenue. The Company's standard arrangement with its customers is generally a purchase order or an executed contract. Revenue on product sales is recognized when control has transferred to the customer which typically occurs when the product has been shipped to the customer, risk of loss has transferred to the customer and the Company has a present right to payment for the system, chip or kit, as applicable. In certain limited circumstances when a product sale includes client acceptance provisions, the Company will first assess such terms to determine if the control of the good is being transferred to the customer in accordance with the agreed-upon specifications in the contract. To the extent that such acceptance provisions can be objectively determined to be aligned with the standard specifications of the arrangement, are defined and easily evaluated for completion, as well as do not afford the customer any additional rights or create additional performance obligations for the Company, such provisions would be determined perfunctory and would not preclude revenue recognition presuming all other criteria are met. If such acceptance provisions are considered to be substantive, revenue is recognized either when client acceptance has been obtained, client acceptance provisions have lapsed, or the Company has objective evidence that the criteria specified in the client acceptance provisions have been satisfied. Payment terms are generally thirty to ninety days from the date of invoicing.

On a limited basis, the Company also enters into fixed-term sales-type lease arrangements with certain qualified customers.

Service revenues

Service revenues primarily consist of strategic partnerships and services agreements, service and warranty, training and installation services, platform support and feasibility studies on the Company's advanced automation systems and workflows. Strategic partnerships and services agreements are agreements whereby the Company provides services for, among other things, the development of customized workflows, screening capabilities, or for customized consumables or advanced automation systems to meet a specific customer's needs. These contracts can be executed on a time-and-materials basis and in certain cases include defined milestones associated with these development activities over extended periods of time, some in excess of twenty-four months. The Company's services are generally provided primarily on a fixed fee basis with defined billing schedules. The Company reviews strategic partnerships and services agreements for revenue recognition at contract inception and generally recognizes revenue from these contracts over time, using either an input measure of progress based on costs incurred to date relative to total expected costs or on a time and materials basis.

The Company recognizes revenue from the sale of extended warranty and enhanced service warranty arrangements over the respective period, while revenue on feasibility studies is recognized over time, using an input measure of progress based on costs incurred to date relative to total expected costs. Revenue on platform support is recognized as the services are performed. Service contracts are typically short-term in nature. Payment terms are generally thirty to ninety days from the date of invoicing.

Contract assets and contract liabilities

Contract assets include amounts where revenue recognized exceeds the amount invoiced to the customer and the right to payment is not solely subject to the passage of time. The Company's contract asset balances of $1.8 million and $2.8 million as of December 31, 2022 and 2021, respectively, are primarily from its sales-type lease arrangements as well as its development and feasibility study agreements. The Company does not have impairment losses associated with contracts with customers for the years ended December 31, 2022 and 2021.

Contract liabilities consist of fees invoiced or paid by the Company's customers for which the associated services have not been performed and revenues have not been recognized based on the Company's revenue recognition criteria described above. Such amounts are reported as deferred revenue on the consolidated balance sheets. Deferred revenue that is expected to be recognized during the following twelve months is recorded as a current liability and the remaining portion is recorded as non-current.

Contract assets and contract liabilities are reported in a net position on an individual contract basis at the end of each reporting period. Contract assets are classified as current or long-term on the consolidated balance sheet based on the timing of when the Company expects to complete the related performance obligations and invoice the customers. Contract liabilities are classified as current or long-term on the consolidated balance sheet based on the timing when the revenue recognition associated with the related customer payments and invoicing is expected to occur.

Costs to obtain or fulfill a contract

Origination costs relate primarily to sales commissions to individuals that are directly related to sales transactions. Fulfillment costs generally include the direct cost of services such as platform support and feasibility studies.

Origination and fulfillment costs that are internal to the Company are generally expensed when incurred because most of those costs are incurred concurrently with the delivery of the related goods and services, which are predominantly recognized at a point in time or are less than one year in nature. The origination costs that are related to long-term development agreements are capitalized and amortized over the relevant service period.

Origination costs that are related to long-term development agreements are not material as of December 31, 2022 and 2021.

Property and equipment

Property and equipment are stated at cost less accumulated depreciation. Depreciation on property and equipment is calculated on the straight-line method over the estimated useful lives of the assets. Expenditures for major additions

and improvements to property and equipment are capitalized and maintenance and repairs are charged to expense as incurred. Assets not yet placed in use are not depreciated.

The estimated useful lives of the Company's property and equipment are as follows:

Equipment, tooling and molds	5—7 years
Computer equipment and software	3—7 years
Furniture, fixtures and other	3—7 years
Leasehold Improvements	Shorter of lease term or estimated useful life

Other assets

Other current assets and other assets consist primarily of contract assets discussed above, prepaid rent, prepaid insurance, advance payments made to certain vendors for future delivery of goods or services and software implementation costs for cloud-based hosting arrangements that are a service contract.

The Company expenses all cloud-based hosting arrangement related costs (internal and external) that were incurred in the planning and post-implementation operation stages of such implementations and capitalizes costs related to the application development stage of such projects. Such projects primarily include, but are not limited to, the implementation of a new customer relationship management system and a new enterprise resource planning system. The capitalized costs are generally amortized on a straight-line basis over the estimated useful life starting on the date that the projects are placed into production and are ready for their intended use. As of December 31, 2022 approximately $0.4 million and $0.6 million were classified in prepaid expenses and other current assets and other assets, respectively. As of December 31, 2021 approximately $0.5 million and $0.5 million were classified in prepaid expenses and other current assets and other assets, respectively.

Research and development costs

Research and development costs primarily consist of salaries, benefits, incentive compensation, stock-based compensation, laboratory supplies, materials expenses and allocated facilities costs for employees and contractors engaged in research, product development and certain development arrangements. The Company expenses all research and development costs in the periods in which they are incurred.

Advertising expenses

The cost of advertising, marketing and media is expensed as incurred. For the years ended December 31, 2022, 2021 and 2020, advertising expenses totaled $1.8 million, $1.2 million and $1.4 million, respectively.

Income taxes

The Company's provision for income taxes, deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflects its best assessment of estimated future taxes to be paid. The Company's provision for income taxes consists primarily of foreign taxes and state taxes in the United States. As the Company expands the scale and scope of its international business activities, any changes in the United States and foreign taxation of such activities may increase its overall provision for income taxes in the future. Deferred income taxes comprise the impact of temporary differences between assets and liabilities recognized for financial reporting purposes and the amounts recognized for income tax reporting purposes, net operating loss carryforwards, and other tax credits measured by applying currently enacted tax laws. A valuation allowance is provided when necessary to reduce deferred tax assets to an amount that is more likely than not to be realized.

The Company determines whether a tax position is more likely than not to be sustained upon examination, including resolution of any related appeals or litigation processes, based on the technical merits of the position. The Company uses a two-step approach to recognize and measure uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained upon tax authority examination, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement. The Company's policy for interest and penalties related to

uncertain tax positions is to recognize interest and penalties, if any, as a component of the provision for income taxes in the consolidated statements of operations and to include accrued interest and penalties within the related tax liability line in the consolidated balance sheets. For all periods presented, the Company has provided a valuation reserve equal to 100% of its deferred tax assets as the Company is not in a position to determine if its operating plans will be successful and result in taxable income to absorb any loss carryforwards.

Stock-based compensation

The Company maintains an incentive compensation plan under which stock options and restricted stock units ("RSU"s) are granted to employees, non-employee consultants and directors.

Stock-based compensation expense is calculated based on the grant date fair value of the award. The Company determines the fair value of RSUs based on the closing price of the Company's common stock as reported by Nasdaq on the date of the grant.

The Company estimates the fair value of the majority of stock option awards on the grant date using the Black-Scholes option-pricing model. For option awards that include a goal tied to the Company share price (i.e. a market condition) the Company uses a Monte Carlo simulation to estimate the fair value.

The fair value of stock options and RSUs with only a service condition is recognized as compensation expense on a straight-line basis over the requisite service period in which the awards are expected to vest and forfeitures are recognized as they occur.

Stock options and RSUs that include a service condition and a performance condition are considered expected to vest when the performance condition is probable of being met. Compensation expense associated with performance awards that are determined to be probable of achievement is recognized over the requisite service period on a tranche-by-tranche basis.

For performance stock options and RSUs not initially assessed as probable of achievement, the Company records a cumulative adjustment to compensation expense in the period the Company changes its determination that a performance condition becomes probable of being achieved. The Company ceases recognition of compensation expense in any periods where the Company determines the attainment of a performance condition is no longer probable. If the performance goals are determined to be improbable, any previously recognized compensation expense is reversed.

The fair value of stock options with a market condition is recognized over the requisite service period for each tranche of the award and is recognized regardless of whether (or to what extent) the market condition is ultimately achieved.

Long-lived assets

Long-lived assets, such as property and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability is measured by comparison of the carrying amount to the future undiscounted net cash flows which the assets are expected to generate. If the carrying amount of the long-lived asset or asset group is not recoverable on an undiscounted cash flow basis, an impairment is recognized to the extent that the carrying amount exceeds its fair value. Fair value is determined through various valuation techniques including discounted cash flow models, quoted market values and third-party independent appraisals, as considered necessary.

Fair value measurements

The Company measures certain assets and liabilities at fair value, which is defined as the price that would be received from the sale of an asset or paid to transfer a liability (i.e., an exit price) on the measurement date in an orderly transaction between market participants in the principal or most advantageous market for the asset or

liability. The Company's fair value measurements use the following hierarchy, which prioritizes valuation inputs based on the extent to which the inputs are observable in the market.

- Level 1 - Quoted prices in active markets for identical instruments.
- Level 2 - Other significant observable inputs (including quoted prices in active markets for similar investments).
- Level 3 - Significant unobservable inputs.

Product warranties

The Company provides a 13-month assurance-type warranty, generally beginning on the shipment date, on its platforms and chip consumables. Upon shipment, the Company establishes an accrual for estimated warranty expenses based on historical data and trends of product reliability and costs of repairing and replacing defective products. The Company exercises 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 management believes that historical experience provides a reliable basis for estimating such warranty cost, unforeseen quality issues or component failure rates could result in future costs in excess of such estimates, or alternatively, improved quality and reliability in the Company's products could result in actual expenses that are below those currently estimated.

Foreign currency translation and transactions

The Company has determined that the functional and reporting currency for its operations in the United Kingdom and China, which are its principal international entities, is the U.S. Dollar. Gains or losses arising from currency exchange rate fluctuations on transactions denominated in a currency other than the local functional currency are included in other income (expense), net.

Leases

The Company determines the initial classification and measurement of its right-of-use assets and lease liabilities at the lease commencement date and thereafter, if modified. The lease term includes any renewal options and termination options that the Company is reasonably certain to exercise. The present value of lease payments is determined by using the interest rate implicit in the lease, if that rate is readily determinable; otherwise, the Company uses its incremental borrowing rate. The incremental borrowing rate is determined by using the rate of interest that the Company would pay to borrow on a collateralized basis an amount equal to the lease payments for a similar term and in a similar economic environment.

Lease expense for operating leases is recognized on a straight-line basis over the reasonably assured lease term based on the total lease payments and is included in operating expenses in the consolidated statements of operations and comprehensive loss.

For all leases, rent payments that are based on a fixed index or rate at the lease commencement date are included in the measurement of lease assets and lease liabilities at the lease commencement date.

The Company has elected the practical expedient to not separate lease and non-lease components. The Company's non-lease components are primarily related to property maintenance and insurance, which varies based on future outcomes, and thus is recognized in rent expense when incurred.

The Company also acts as a lessor to provide equipment financing through sales-type lease arrangements with certain qualified customers. Revenue from sales-type leases is presented on a gross basis when the company enters into a lease to realize value from a product that it would otherwise sell in its ordinary course of business. Amounts due and receivable under these arrangements are recorded at the outset of the arrangement as a contract asset in prepaid expenses and other current assets and other assets until such time that invoices are issued in accordance with the terms of the lease, at which point they are recorded as trade accounts receivable in the consolidated balance sheets.

The Company subleases certain of its leased facilities. Income from subleased facilities is generally recognized on a straight-line basis and accounted for as a reduction to rent expense.

Net loss attributable to common stockholders per share

Net loss attributable to common stockholders per share is computed dividing net loss by the weighted-average number of common shares outstanding for the period. Diluted net loss per share reflects the potential dilution that would occur if securities or other contracts to issue common stock were exercised or converted into common stock; however, potential common equivalent shares are excluded if their effect is anti-dilutive. In computing diluted net loss per share, the Company utilizes the treasury stock method.

The Company applies the two-class method to compute basic and diluted net loss or income per share when it has issued shares that meet the definition of participating securities. The two-class method determines net (loss) or income per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires net (loss) income available to common stockholders for the period to be allocated between common and participating securities based upon their respective rights to share in the earnings as if all net (loss) income for the period had been distributed. The Company's convertible preferred stock participated in any dividends declared by the Company and were therefore considered to be participating securities. The participating securities are not required to participate in the losses of the Company, and therefore during periods of loss there is no allocation required under the two-class method.

(3) Marketable Securities

Short-Term Marketable Securities

The Company invests in available-for-sale investment grade marketable debt securities consisting of money market funds, commercial paper, U.S. agency and U.S. government securities. At December 31, 2022, the Company's short-term marketable securities all had contractual maturities due within one year. The Company did not hold any investments in marketable debt securities as of December 31, 2021.

The following table summarizes the amortized costs and carrying value of the Company's available-for-sale marketable debt securities, by balance sheet classification and by major security type, as of December 31, 2022 (in thousands):

Marketable Securities reported as Cash Equivalents

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Money market funds	$ 2,354	$ —	$ —	$ 2,354
Commercial paper	16,606	—	(4)	16,602
U.S. agency securities	3,969	1	—	3,970
U.S. government securities	—	—	—	—
Total	$ 22,929	$ 1	$ (4)	$ 22,926

Marketable Securities reported as Short-term Marketable Securities

	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value
Commercial paper	$ 22,158	$ 1	$ (11)	$ 22,148
U.S. agency securities	4,941	1	—	4,942
U.S. government securities	19,159	5	(2)	19,162
Total	$ 46,258	$ 7	$ (13)	$ 46,252

At each reporting date, the Company performs an evaluation of impairment to determine if any unrealized losses are the result of credit losses. Impairment is assessed at the individual security level. Unrealized losses on available-for-sale debt securities as of December 31, 2022 were not significant and were primarily market driven due to changes in interest rates, and not due to increased credit risk associated with specific securities. Accordingly, the Company did not record an allowance for credit losses on these short term investments as of December 31, 2022.

See Note 8 for information about the fair value of the Company's short-term marketable securities.

(4) Significant risks and uncertainties including business and credit concentrations

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash equivalents, short-term available-for-sale debt securities and trade receivables. The Company invests its excess cash in money market funds and short-term available-for-sale debt securities with the primary objective of facilitating liquidity and capital preservation. The Company has established guidelines relative to credit ratings, diversification and maturities that seek to maintain safety and liquidity. Deposits in financial institutions may exceed the amounts of insurance provided on such deposits. To date, the Company has not experienced any realized losses on its deposits of cash, cash equivalents and marketable securities.

The Company controls credit risk through credit approvals and monitoring procedures. The Company performs periodic credit evaluations of its customers and generally does not require collateral. Accounts receivable are recorded net of an allowance for doubtful accounts. The allowance for doubtful accounts is based on management's assessment of the collectability of specific customer accounts and the aging of the related invoices and represents the Company's best estimate of expected credit losses in its existing trade accounts receivable. At each of December 31, 2022 and 2021, the Company had not recorded any material allowance for doubtful accounts.

For the year ended December 31, 2022, one customer accounted for 19% of revenue. For the year ended December 31, 2021, three customers accounted for 19%, 11% and 10% of revenue. For the year ended December 31, 2020, one customer accounted for 12% of revenue. Two customers accounted for 24% and 11% of accounts receivable at December 31, 2022. Three customers comprised 15%, 11%, and 11% of accounts receivable at December 31, 2021.

(5) Acquisitions

On December 21, 2022, the Company entered into a definitive agreement to acquire IsoPlexis Corporation ("IsoPlexis") in an all-stock transaction with an estimated purchase price of $57.8 million as of December 16, 2022 ("IsoPlexis Acquisition"). Under the terms of the agreement, IsoPlexis shareholders will receive 0.612 shares of Berkeley Lights stock for each IsoPlexis share they hold. Following the close of the transaction, Berkeley Lights shareholders will own approximately 75.2 percent of the combined company, and IsoPlexis shareholders will own approximately 24.8 percent of the combined company. The transaction is subject to approval by shareholders of both Berkeley Lights and IsoPlexis and other customary closing conditions.

(6) Revenue from contracts with customers

The Company's revenue consists of both product revenue and service revenue, which is generated through the following revenue streams: (i) platform, (ii) recurring, and (iii) partnerships.

The following tables provide an overview of the Company's revenue streams and how the Company reports revenue in its consolidated statements of operations:

Income Statement Classification	Product or Service sold	Revenue Stream
Product revenue	Sale of advanced automation systems (Beacon and Lightning systems, Culture Station)	Platform
	Software and workflow licenses	Platform
	Fixed term sales-type lease arrangements with qualified customers	Platform
	Quarterly workflow subscriptions, annual or multi-year subscriptions arrangements (e.g. TechAccess)	Recurring
	Consumables and reagent kits (e.g. OptoSelect chips)	Recurring
Service revenue	Strategic partnerships, joint development and collaboration agreements where we provide services for development of new workflows, cells or organism types	Partnerships
	Application support, installation and training	Platform
	Fixed fee extended warranty and service programs	Recurring

The following tables provide information by revenue stream for the periods presented (in thousands):

	Year ended December 31, 2022		
	Product	**Service**	**Total**
Platform	$ 34,527	$ 1,267	$ 35,794
Recurring	14,403	10,412	24,815
Partnerships	—	17,986	17,986
Total revenue	$ 48,930	$ 29,665	$ 78,595

	Year ended December 31, 2021		
	Product	**Service**	**Total**
Platform	$ 44,366	$ 1,996	$ 46,362
Recurring	12,209	6,947	19,156
Partnerships	—	19,870	19,870
Total revenue	$ 56,575	$ 28,813	$ 85,388

	Year ended December 31, 2020		
	Product	Service	Total
Platform	$ 42,435	$ 2,221	$ 44,656
Recurring	9,151	4,737	13,888
Partnerships	—	5,759	5,759
Total revenue	$ 51,586	$ 12,717	$ 64,303

Revenues by geographical markets are presented in Note 19.

Performance obligations

A significant number of the Company's product and service sales, as well as its feasibility study arrangements, are short-term in nature with a contract term of one year or less. For those contracts, the Company has utilized the practical expedient in ASC 606-10-50-14 exempting the Company from disclosure of the transaction price allocated to remaining performance obligations if the performance obligation is part of a contract that has an original expected duration of one year or less.

As of December 31, 2022, the aggregate amount of remaining performance obligations that are unsatisfied or partially unsatisfied related to customer contracts in excess of one year was $13.9 million, which, to the extent invoiced, is included in deferred revenue on the Company's consolidated balance sheets, of which approximately 42% is expected to be recognized as revenue in the next 12 months, with the remainder afterwards.

Contract balances

The following table provides information about receivables, contract assets and deferred revenue from contracts with customers (in thousands):

	December 31,	
	2022	2021
Trade accounts receivable	$ 18,534	$ 25,942
Contract assets, which are included in "Prepaid expenses and other current assets"	$ 1,283	$ 1,736
Contract assets, long-term, which are included in "Other assets"	$ 549	$ 1,070
Deferred revenue (current)	$ 9,092	$ 12,128
Deferred revenue (non-current)	$ 963	$ 2,187

The contract liabilities of $10.1 million and $14.3 million as of December 31, 2022 and December 31, 2021, respectively, consisted of deferred revenue related to extended warranty service agreements, strategic partnerships and services agreements, and advanced automation system arrangements. Revenue recorded during the year ended December 31, 2022 included $12.3 million of previously deferred revenue that was included in contract liabilities as of December 31, 2021.

Sales-type lease arrangements

The Company also enters into sales-type lease arrangements with certain qualified customers. Revenue related to lease elements from sales-type leases is presented as product revenue and was none, $2.7 million and $1.7 million for the year ended December 31, 2022, 2021 and 2020, respectively.

The following table presents the future maturity of the Company's fixed-term customer leases and reconciles the undiscounted cash flows from the amounts due from customers under such arrangements as of December 31, 2022 (in thousands):

Year ending December 31,	Sales-Type Leases
2023	$ 1,287
2024	445
2025	408
Total undiscounted cash flows	2,140
Less: unearned income	(219)
Total amounts due from customers (1)	$ 1,921

(1) Of the $1.9 million, $0.3 million is recorded in trade accounts receivable, with the remaining balance recorded in contract assets.

(7) Balance sheet accounts

Inventory

The following table shows the components of inventory (in thousands):

	December 31,	
	2022	2021
Raw materials	$ 11,946	$ 8,296
Finished goods	6,915	6,251
Total	$ 18,861	$ 14,547

Prepaid expenses and other current assets

The following table shows the components of prepaid expenses and other current assets (in thousands):

	December 31,	
	2022	2021
Contract asset	$ 1,283	$ 1,736
Vendor deposits	126	2,802
Deferred costs	472	561
Prepaid insurance	2,025	2,944
Other (1)	2,877	3,942
Total	$ 6,783	$ 11,985

(1) Other includes primarily prepaid rent expenses, software licenses and prepaid VAT.

Accrued expenses and other current liabilities

The following table shows the components of accrued expenses and other current liabilities (in thousands):

	December 31,	
	2022	**2021**
Accrued payroll and employee related expenses	$ 7,410	$ 6,757
Lease liability—short-term	3,291	2,941
Accrued product warranty	749	1,085
Accrued legal expenses (1)	8,271	504
Other (2)	1,619	1,138
Total	$ 21,340	$ 12,425

(1) The increase in accrued legal expense was primarily driven by increased legal fees incurred in connection with the IsoPlexis Acquisition and contract arbitration.

(2) Other includes accrued income taxes, sales taxes, accrued royalties and other miscellaneous accruals.

(8) Fair value of financial instruments

The following is a description of the valuation techniques the Company uses to measure the fair value of assets and reports fair value on a recurring basis:

- *Cash equivalents:* At December 31, 2022, the Company's cash equivalents consisted of money market funds and short-term marketable securities. Money market funds are highly liquid investments and are actively traded and pricing information is readily available. Accordingly, the Company classifies these securities as Level 1 of the fair value hierarchy.
- *Short Term Marketable Securities:* At December 31, 2022, the Company's short-term marketable securities consisted of commercial paper, U.S. agency securities and U.S. government securities. The Company values short-term marketable securities using quoted prices in active markets for similar instruments. Accordingly, the Company classifies marketable securities as Level 2 of the fair value hierarchy.

The carrying amounts of the Company's cash, accounts receivable, prepaid expenses, other current assets, accounts payable, accrued expenses and other current liabilities as of December 31, 2022 and December 31, 2021 approximate fair value due to their relatively short maturities.

At December 31, 2022 and 2021, the fair value measurements of the Company's assets measured on a recurring basis were as follows (in thousands):

	December 31, 2022	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash equivalents:				
Money market funds	$ 2,354	$ 2,354	$ —	$ —
Commercial paper	16,602	—	16,602	—
U.S. agency securities	3,970	—	3,970	—
Total cash equivalents	22,926	2,354	20,572	—
Debt securities, available for sale:				
Commercial paper	22,148	—	22,148	—
U.S. agency securities	4,942	—	4,942	—
U.S. government securities	19,162	—	19,162	—
Total debt securities, available for sale	46,252	—	46,252	—
Total assets measured at fair value	$ 69,178	$ 2,354	$ 66,824	$ —

	December 31, 2021	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Cash equivalents:				
Money market funds	$ 25,138	$ 25,138	$ —	$ —
Total cash equivalents	$ 25,138	$ 25,138	$ —	$ —

The carrying values and fair values of the Company's financial instruments not measured at fair value were as follows (in thousands):

	December 31,			
	2022		2021	
	Carrying value	Fair value	Carrying value	Fair value
Long-term debt, including current maturities	$ 19,826	$ 17,443	$ 19,762	$ 19,298

The Company estimated the fair value of its long-term debt using a market-based approach that considers an average cost of debt. The Company has incorporated its own credit risk for all liability fair value measurements. Such fair value measurements are considered Level 2 under the fair value hierarchy.

The Company did not have any transfers of financial assets measured at fair value on a recurring basis between the levels of the fair value measurement hierarchy during the periods presented.

(9) Property and equipment, net

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

	December 31,	
	2022	2021
Equipment, tooling and molds	$ 36,152	$ 33,972
Computer software and equipment	2,667	3,019
Furniture, fixtures and other	2,007	1,891
Leasehold improvements	10,836	6,105
Construction in process	1,409	4,803
Total property and equipment	53,071	49,790
Less: accumulated depreciation	(29,224)	(21,798)
Property and equipment, net (1)	$ 23,847	$ 27,992

(1) Includes $0.1 million of assets held for sale at December 31, 2022.

Total depreciation expense for the years ended December 31, 2022, 2021 and 2020 was $9.0 million, $5.6 million and $5.1 million, respectively.

During the years ended December 31, 2022, 2021 and 2020, the Company recorded losses on the disposal of certain assets totaling $0.1 million, $0.1 million and $0.1 million, respectively. These losses for the periods presented were primarily related to lab equipment and other supplies that were determined to be no longer usable. In addition, during 2022 the Company recorded a loss on assets held for sale of $0.1 million. See Note 14 for further information.

(10) Leases

The Company leases office, manufacturing, distribution and laboratory facilities in various locations in the United States, primarily in Emeryville, California. The Company also leases facilities in Shanghai, China for office and laboratory facilities. On December 28, 2022, the Company entered into a sub-lease arrangement for its facility in Lexington, Massachusetts.

Future payments associated with the Company's operating lease liabilities as of December 31, 2022 are as follows (in thousands):

	Operating leases
Undiscounted lease payments for the year ending December 31,	
2023	$ 4,419
2024	4,507
2025	4,524
2026	4,621
2027	4,759
Thereafter	7,464
Total undiscounted lease payments	30,294
Less: implied interest	(4,212)
Less: tenant improvement allowance receivable	(65)
Present value of operating lease payments	26,017
Less: current portion (1)	(3,291)
Total long-term operating lease liabilities	$ 22,726

(1) Included in the balance sheet caption "Accrued expenses and other current liabilities."

Rent expense for the years ended December 31, 2022, 2021 and 2020 was $4.4 million, $3.8 million and $2.6 million, respectively. Under the terms of the lease agreements, the Company is also responsible for certain variable lease payments that are not included in the measurement of the lease liability. Variable lease payments for operating leases were $3.1 million, $2.3 million and $1.6 million for the years ended December 31, 2022, 2021 and 2020, respectively, including non-lease components such as common area maintenance fees.

The following information represents supplemental disclosure for the statement of cash flows related to operating leases (in thousands):

	Year ended December 31, 2022	Year ended December 31, 2021
Right-of-use assets obtained for new operating lease liabilities - New leases	$ 386	$ 3,348
Right-of-use assets obtained in exchange for new operating lease liabilities - Modification of existing leases	$ —	$ 8,320
Cash paid for amounts included in the measurement of lease liabilities	$ 2,946	$ 3,675

The following summarizes additional information related to operating leases:

	Year ended December 31, 2022	Year ended December 31, 2021
Weighted-average remaining lease term (years)	6.48	7.51
Weighted average discount rate	4.66 %	4.67 %

The Company also enters into leasing transactions in which the Company is the lessor that to date have been classified as sales-type leases. See Note 6 for the related lease disclosures.

(11) Notes payable

On May 23, 2018, the Company entered into a Loan and Security Agreement ("Loan Agreement") with East West Bank ("EWB") pursuant to which EWB agreed to provide a $20.0 million term loan facility ("Term Loan"). The Term Loan was fully drawn as of May 23, 2018.

On June 30, 2021, the Company entered into an amended and restated loan and security agreement ("Amended Loan Agreement") with EWB. Pursuant to the Amended Loan Agreement, EWB provided a $20.0 million term loan ("Amended Term Loan") which was used to refinance the Term Loan outstanding under the Loan Agreement dated May 23, 2018. The Amended Term Loan matures in 48 months and bears interest at a fixed rate of 4.17%. The Amended Term Loan has an initial interest-only period of 24 months, which can be extended to up to 36 months based on the achievement of certain liquidity measures, and can be pre-paid without penalty at any time.

The Amended Loan Agreement grants EWB a security interest in and liens on all assets of the Company, excluding intellectual property, which is subject to a double negative pledge. In addition, certain other terms of the original agreements as previously in effect were amended by the Amended Loan Agreement, including certain financial covenants. The Amended Term Loan was accounted for as a debt modification and the Company capitalized incremental debt issuance costs.

Furthermore, the Amended Loan Agreement also provided the Company with a new $10.0 million revolving credit ("Revolving Line"), which bears interest on the outstanding daily balance thereof of 0.70% above the Prime Rate (as defined in the Amended Loan Agreement). No amounts were outstanding under the Revolving Line as of December 31, 2022 and 2021.

The Amended Loan Agreement contains certain financial and non-financial covenants. As of December 31, 2022, the Company was in compliance with the terms and covenants of the Amended Term Loan.

The following is a schedule of payments due on notes payable as of December 31, 2022 (in thousands):

Year Ending December 31		
2023	$	5,801
2024		10,442
2025		5,061
Total payments due		21,304
Less:		
Interest payments, loan discounts and financing costs		(1,478)
Current portion, less loan discounts and financing costs		(4,966)
Notes payable, net of current portion	$	14,860

Total interest cost incurred for the years ended December 31, 2022, 2021 and 2020 was $0.9 million, $1.2 million and $1.4 million, respectively.

(12) Stockholders' equity

The Company's Amended and Restated Certificate of Incorporation authorizes it to issue 310,000,000 shares of capital stock consisting of 300,000,000 shares of common stock and 10,000,000 of preferred stock.

Common stock

Common stock issued and outstanding was 72,169,052 and 67,595,535 shares as of December 31, 2022 and 2021, respectively. Holders of common stock are entitled to one vote per share, to receive dividends when and if declared and, upon liquidation or dissolution, are entitled to receive all assets available for distribution to stockholders. The holders have no preemptive or other subscription rights. Common stock is subordinate to the preferred stock with respect to dividend rights and rights upon liquidation, winding up and dissolution of the Company.

Convertible preferred stock

The Company had no convertible preferred stock outstanding as of December 31, 2022 and 2021. The Company completed its IPO in July of 2020. Immediately prior to the completion of the IPO 50,462,272 shares of convertible preferred stock then outstanding converted into an equivalent number of shares of common stock.

Fraudulent issuance of shares

In November 2022, the Company became aware that an unknown third-party, impersonating a Company employee over e-mail through domain spoofing, fraudulently induced the Company's transfer agent ("Transfer Agent") to issue and convey 3.3 million purported shares of the Company's common stock ("Purported Shares"), which shares the Company believes were subsequently sold on the open market approximately between October 7, 2022, and November 3, 2022.

Working with the Transfer Agent, the Company has recovered approximately $9.2 million in cash. For accounting purposes, approximately $8.1 million has been recorded as a credit to additional paid-in capital and a financing inflow on the consolidated statement of cash flows, consistent with the accounting as though the Company had issued the 3.3 million shares through normal channels, as that amount is equal to the trading value of the purported shares at issue as of December 16, 2022. The Company is accounting for the remaining $1.1 million recovered funds as a reimbursement for legal fees and other expenses it incurred as a result of this incident.

Subsequent event

The Company's Board has determined that the issuance of the Purported Shares, even though it occurred without any involvement or knowledge by the Company, may be treated as a defective corporate act that involves the issuance of shares of putative stock (as defined in Section 204(h) of the Delaware General Corporation Law) without proper Company authorization ("Defective Act"). The Company's Amended and Restated Certificate of Incorporation provides a sufficient number of authorized shares of the Company's common stock to ratify the Defective Act. The Board adopted a resolution ratifying the Defective Act on February 14, 2023.

(13) Stock compensation plan

2011 Equity Incentive Plan

Following the adoption of the 2020 Incentive Award Plan in July 2020, any awards outstanding under the 2011 Plan continue to be governed by their existing terms but no further awards may be granted under the 2011 Plan. The shares underlying stock options issued under the 2011 Plan, which are forfeited after the effective date of the 2020 Plan, as described below, will be automatically added to the number of shares reserved for issuance under the 2020 Plan.

2020 Incentive Award Plan

In July 2020, the Company's Board approved the 2020 Incentive Award Plan ("2020 Plan"). The 2020 Plan allows for the issuance of stock options and RSUs that vest based on the attainment of service, performance and/or market conditions. As of December 31, 2022, the number of shares remaining for issuance under the 2020 Plan was 12,690,281, which includes shares subject to awards granted and outstanding under the 2011 Plan that are forfeited or lapse unexercised after the effective date of the 2020 Plan.

Stock options can be granted with an exercise price less than, equal to or greater than the stock's fair value at the date of grant. The exercise price of an incentive stock option and non-qualified stock option granted to a 10% stockholder shall not be less than 110% of the estimated fair value of the shares on the date of grant, as determined by the Board. Stock-option awards generally have 10-year terms, except for incentive stock option awards to 10% stockholders which have 5-year terms, and awards to employees generally vest and become fully exercisable after 4 years of service from the date of grant. Vesting of stock options with a performance condition are contingent upon the attainment of certain operational or financial metrics. Vesting of stock options with a market condition are contingent upon the attainment of certain Company share prices.

The Company also grants RSUs with a service condition as well as RSUs with both a service and performance condition. RSUs with only a service condition generally vest over a four-year period with equal vesting annually. Vesting of RSUs with both a service and performance condition are contingent upon the attainment of certain operational or financial metrics.

The Company currently uses authorized and unissued shares to satisfy option exercises and settlement of equity awards.

Stock option activity

Stock option activity during the periods indicated is as follows (in thousands except share and per share data):

	Number of options outstanding	Weighted average exercise price	Weighted average remaining contractual term (years)	Aggregate intrinsic value
Balance at December 31, 2021	6,732,197	$ 15.59	7.31	$ 58,979
Options granted	2,462,763	$ 5.07		
Options exercised	(299,173)	$ 2.81		
Options cancelled	(1,075,499)	$ 18.33		
Options expired	(5,000)	$ 0.06		
Balance at December 31, 2022	7,815,288	$ 8.03	7.19	$ 826
Unvested at December 31, 2022	3,350,557	$ 7.28	8.76	$ —
Vested and exercisable at December 31, 2022	4,464,731	$ 8.59	6.02	$ 826

Amounts in the table above are inclusive of performance and market-based stock options as discussed in more detail below.

During the years ended December 31, 2022, 2021 and 2020, the Company granted 2,462,763, 917,701 and 2,403,270 stock options, respectively, with a weighted-average grant date fair value of $2.87 per share, $22.43 per share and $12.09 per share, respectively. The aggregate intrinsic value of options exercised was $0.9 million, $147.5 million and $58.3 million for the years ended December 31, 2022, 2021 and 2020, respectively. The aggregate intrinsic value is calculated as the difference between the exercise price and the estimated fair value of the Company's common stock at the date of exercise.

At December 31, 2022 there was $15.6 million of total unrecognized compensation cost related to unvested stock options granted under the 2011 Plan and 2020 Plan, which is expected to be recognized over a weighted average period of 2.27 years.

Option Repricing

On May 19, 2022, the Company's Board elected to reprice all outstanding stock options granted to non-executive employees of the Company under the Berkeley Lights, Inc. 2020 Incentive Plan with a strike price above the closing price of the Company's common stock as reported by Nasdaq as of May 19, 2022. The new strike price for these repriced stock options is $4.91, which was the May 19, 2022 closing price. There were no other modifications to these options, including vesting schedules. Options representing 763,307 underlying shares were included in this repricing and the total incremental expense associated with the modification of these options was $1.5 million, of which $0.5 million was recorded in the second quarter of 2022 with the remaining to be recognized through February 22, 2026.

In addition, non-executive employees of the Company with outstanding options granted under the Berkeley Lights 2011 Equity Incentive Plan with a strike price above the closing price of the Company's common stock as reported on Nasdaq as of May 19, 2022 were granted an RSU for every two stock options held with a strike price above the closing price as of May 19, 2022. These RSUs were granted on June 1, 2022 and vest in full on June 1, 2024, subject to the employee's continued service. An aggregate total of 353,625 RSUs were granted to such employees resulting in $1.5 million of compensation expense, of which approximately $55 thousand was recorded in the second quarter of 2022 with the remaining to be recognized through June 1, 2024.

Stock option valuation assumptions for awards to employees and the Board of Directors

The Company estimated the fair value of each employee and member of the Board stock option grant on the date of grant using the Black-Scholes option pricing model. The model assumptions include expected volatility, expected term, dividend yield, and the risk-free interest rate. The expected volatility was based on the volatility of a group of

similar entities. The Company derived expected term by using the "simplified" method (the expected term is determined as the average of the time-to-vesting and contractual life of the option), as the company has limited historical information to develop expectations about future exercise patterns and post vesting employment termination behavior. The Company based the risk-free rate on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term of the option. The Company has never paid any dividends and does not anticipate paying dividends in the foreseeable future, and therefore used an expected dividend yield of zero in the valuation model.

Below are the assumptions used in this valuation, on a weighted average basis, for the periods presented:

	Year ended December 31,		
	2022	2021	2020
Expected dividend yield	— %	— %	— %
Expected volatility	67.7 %	57.4 %	47.3 %
Expected term (years)	7.06	6.14	6.00
Risk-free interest rate	2.51 %	1.06 %	0.63 %

Restricted stock unit activity, including performance stock unit activity

	Restricted Stock Units	Weighted Average Grant Date Fair Value (per share)
Unvested restricted stock units at December 31, 2021	906,294	$ 34.59
Restricted stock units granted (1)	5,193,923	$ 5.38
Restricted stock units vested	(823,620)	$ 12.43
Restricted stock units cancelled	(876,143)	$ 15.73
Unvested restricted stock units at December 31, 2022	4,400,454	$ 8.00

(1) Amount includes the maximum amount of RSUs available for issuance for awards that include a service or performance condition. The actual number of shares to be issued will depend on the relative attainment of the performance metrics.

The Company estimates the fair value of its restricted stock unit awards based on the Company's stock price on the grant date.

The total fair value of restricted stock units vested during 2022 and 2021 was $3.3 million and $2.3 million, respectively. At December 31, 2022 there was $28.2 million of total unrecognized compensation cost related to unvested RSUs granted under the 2020 Plan, which is expected to be recognized over a weighted average period of 2.76 years.

Stock-based compensation expense

Stock-based compensation related to the Company's stock-based awards was recorded as an expense and allocated as follows (in thousands):

	Year ended December 31,		
	2022	2021	2020
Cost of sales	$ 317	$ 254	$ 290
Research and development	6,145	5,672	5,201
Selling, general and administrative	15,732	15,296	5,426
Total stock-based compensation	$ 22,194	$ 21,222	$ 10,917

Stock-based compensation for the year ended December 31, 2020 includes $2.4 million of expense related to the modification of certain stock options related to the retirement of one of the Company's non-executive employees, which was recognized at the time of the modification.

Stock-based compensation expense capitalized in inventory during the years ended December 31, 2022 and 2021 was immaterial.

2022 CEO Equity Grants

On March 10, 2022, the Company granted its newly appointed Chief Executive Officer 1,017,177 RSUs, 339,059 time-based stock options and 678,118 performance-based stock options ("PSOs"). The RSUs and time-based stock options vest quarterly over 3 years and the time-based stock options have a 10 year term.

The PSOs have a 7-year performance period, a 10-year term and vest based upon the achievement of certain market conditions and a continued service-based requirement. Market condition-related vesting is triggered based on the Company's stock price reaching certain goals that range from two to 20 times the Company share price on the date of grant.

Although no PSOs will vest until a market condition is satisfied, as of March 31, 2022, the Company began recording stock-based compensation expense for each vesting tranche of the PSOs based on the estimated achievement date of the specified stock price target. The valuation and probability of achievement for each tranche is determined using a Monte Carlo simulation. The same Monte Carlo simulation is used as the basis for determining the expected achievement date. As the probability of achievement is factored in as part of the Monte Carlo simulation, the expense for these tranches will be recognized concurrently over each tranche's estimated achievement date even if some or all of the PSOs never vest. If the related market condition for a tranche is achieved earlier than expected, all unamortized expense for such tranche will be recognized immediately. As of December 31, 2022, none of the PSOs had vested.

Stock-based compensation associated with awards to non-employees

Since its inception, from time to time the Company has issued stock-based awards to non-employees, primarily in the form of stock options and RSUs. Stock-based compensation expense related to stock-based awards to non-employees is recognized as the stock-based awards are earned, generally through the provision of services. The Company believes that the fair value of the stock-based awards is more reliably measurable than the fair value of the services received. During the years ended December 31, 2022, 2021 and 2020, the Company granted a total of 756, 2,994 and 657,500 stock-based awards, respectively, to certain non-employees that generally vest over periods ranging from 1 to 3 years.

Stock-based compensation expense related to non-employee awards was $0.6 million, $2.0 million and $2.0 million for the years ended December 31, 2022, 2021 and 2020, respectively.

The fair value of non-employee stock options was estimated using the following weighted-average valuation assumptions:

	Year ended December 31,		
	2022	2021	2020
Expected dividend yield	(a)	(a)	— %
Expected volatility	(a)	(a)	50.2 %
Expected term (years)	(a)	(a)	5.67
Risk-free interest rate	(a)	(a)	0.37 %

(a) During the years ended December 31, 2022 and 2021, the Company did not grant any stock options to non-employees.

The assumptions for stock option grants to non-employees were determined in a matter consistent with those of the option awards granted to employees, other than the expected term, which was based on the contractual term of the award.

Employee Stock Purchase Plan

A total of 1,619,235 shares of the Company's common stock were available for issuance under the 2020 Employee Stock Purchase Plan ("ESPP") at December 31, 2022. The ESPP permits eligible employees to purchase common stock at a discount through payroll deductions during defined offering periods. The price at which stock is purchased under the ESPP is equal to 85% of the fair market value of the common stock on the first day of the offering period or purchase date, whichever is lower. The initial offering period for the ESPP ran from July 17, 2020 through March 6, 2021, with subsequent offering periods following in six month intervals.

During the years ended December 31, 2022 and 2021, 150,724 and 163,008 shares were issued under the ESPP. Total stock-based compensation recorded for the ESPP was $0.5 million, $1.2 million and $0.7 million for the years ended December 31, 2022, 2021 and 2020 respectively. For the years ended December 31, 2022 and 2021, the weighted average grant date fair value of the ESPP shares purchased, using the Black-Scholes option pricing model, was $9.50 and $10.40, respectively.

For the years ended December 31, 2022 and 2021, the fair value of the ESPP was estimated using the following weighted-average valuation assumptions:

	Year ended December 31, 2022	Year ended December 31, 2021
Expected dividend yield	— %	— %
Expected volatility	60.9 %	72.1 %
Expected term (years)	0.50	0.56
Risk-free interest rate	22.00 %	0.11 %

(14) Restructuring

Restructuring

During 2022, the Company adopted a new strategic plan with the intention of reducing costs and better aligning the organization with the Company's long-term goals. As a result, the Company approved a set of restructuring initiatives in which the Company incurred net charges of $3.5 million These restructuring charges included (i) $1.1 million of employee severance and termination-related costs associated with the termination of approximately 12% of total full-time employees in the third quarter of 2022 and (ii) $2.5 million of non-labor related charges, consisting primarily of costs associated with the sublease of office and laboratory facilities in Lexington, Massachusetts, including the write-down of assets held for sale to their net realizable value, and the write-down of certain vendor deposits that will no longer be used in ongoing operations.

As of December 31, 2022, the Company has not fully completed its restructuring efforts. It is unable to currently estimate future restructuring charges, but will record any additional restructuring-related expenses as they are incurred.

Changes in the Company's restructuring activities and accrual are set forth in the table below (in thousands):

	Employee severance and termination benefits	Non labor restructuring	Total
Accrual at December 31, 2021	$ —	$ —	$ —
Restructuring charges	1,058	2,455	3,513
Cash payments	(928)	—	(928)
Non-cash settlements	—	(2,348)	(2,348)
Accrual at December 31, 2022	$ 130	$ 107	$ 237

Restructuring liabilities are included in accrued expenses and other current liabilities in the consolidated balance sheet.

Subsequent Event

During the first quarter of 2023, the Company announced another reduction in force terminating approximately 9% of total full-time employees. The Company estimates it will incur severance and employee-related restructuring costs of approximately $0.8 million related to this activity, substantially all of which the Company expects to incur in the first quarter of 2023.

(15) Income taxes

Income taxes

For the years ended December 31, 2022, 2021 and 2020, income from continuing operations before taxes consisted of amounts related to U.S. operations and the Company's foreign operations. Income tax expense (benefit) attributable to income from continuing operations consists of (in thousands):

	Year ended December 31,		
	2022	2021	2020
Current provision (benefit):			
Federal	$ —	$ —	$ —
State	17	26	70
Foreign	83	(81)	104
Total current provision (benefit)	100	(55)	174
Deferred provision:			
Federal	—	—	—
State	—	—	—
Foreign	—	—	—
Total deferred provision	—	—	—
Total provision (benefit)	$ 100	$ (55)	$ 174

Tax rate reconciliation

Income tax expense (benefit) attributable to income from continuing operations was $100,000, $(55,000) and $174,000 for the years ended December 31, 2022, 2021 and 2020, respectively, and differed from the amounts computed by applying the U.S. federal statutory income tax rate to loss from continuing operations as a result of the following (in thousands):

	Year ended December 31,		
	2022	2021	2020
Tax benefit at federal statutory rate	$ (20,568)	$ (15,074)	$ (8,696)
State income taxes	(1,568)	(2,817)	(1,012)
Foreign rate differential	(57)	(434)	84
Research and development credits	(2,656)	(3,420)	(2,740)
Change in unrecognized tax benefits	996	1,283	1,028
Non-deductible stock-based compensation	3,028	(21,692)	(5,184)
Non-deductible permanent expenses	(98)	629	87
Other	(329)	509	306
Change in valuation allowance	21,352	40,961	16,301
Provision for (benefit from) income taxes	$ 100	$ (55)	$ 174

Significant components of deferred taxes

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities at December 31, 2022 and 2021 are presented below (in thousands):

	December 31,	
	2022	2021
Deferred tax assets:		
Net operating loss carryforwards	$ 92,313	$ 85,326
Income tax credit carryforwards	12,130	10,471
Capitalized research and development expenses	11,102	—
Accruals and reserves	2,684	1,996
Deferred revenue	2,246	3,243
Operating lease liability	5,864	6,150
Stock-based compensation	3,399	2,578
Inventory	414	266
Total gross deferred tax assets	130,152	110,030
Less valuation allowance	(124,121)	(102,769)
Net deferred tax assets	6,031	7,261
Deferred tax liabilities:		
Contract assets	(414)	(636)
Receivables and deferred costs	(231)	(226)
Operating lease right-of-use asset	(5,257)	(5,876)
Depreciation expense	(129)	(523)
Total gross deferred tax liabilities	(6,031)	(7,261)
Net deferred tax assets	$ —	$ —

As of December 31, 2022, the Company had federal, California and other state net operating loss carryforwards of $378.8 million, $101.8 million and $81.8 million, respectively. The federal net operating losses incurred before January 1, 2018 and California net operating losses will begin to expire in 2031. The federal net operating losses

incurred in 2018 and beyond do not expire. The net operating losses in the other states will begin to expire in 2035. As of December 31, 2022, the Company had credit carryforwards of approximately $11.8 million and $10.1 million available to reduce future taxable income, if any, for federal and California state income tax purposes, respectively. The federal research and development credit carryforwards expire beginning 2031, and California state credits can be carried forward indefinitely. On December 22, 2017, the Tax Cuts and Jobs Act ("Tax Act") was signed into law. The Tax Act significantly revised the U.S. tax code generally effective January 1, 2018. Beginning in 2022, the Tax Act requires capitalization of research and development costs, which has been accounted for in the current year provision.

Management believes that, based on a number of factors, which includes the Company's historical operating performance and accumulated deficit, it is more likely than not that the deferred tax assets will not be utilized, such that a full valuation allowance has been recorded against the Company's deferred tax assets. In assessing the realizability of deferred tax assets, management considers whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. Such assessment is required on a jurisdiction by jurisdiction basis. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible.

The valuation allowance for deferred tax assets consisted of the following activity for the years ended December 31, 2022 and 2021 (in thousands):

	Year ended December 31,	
	2022	2021
Balance, beginning of year	$ 102,769	$ 61,808
Additions to valuation allowance	21,352	40,961
Balance, end of year	$ 124,121	$ 102,769

The Company intends to continue maintaining a full valuation allowance on its deferred tax assets until there is sufficient evidence to support the reversal of all or some portion of these allowances.

Utilization of net operating losses and tax credit carryforwards may be limited by ownership change rules, as defined in Section 382 of the Internal Revenue Code ("Section 382"). Similar rules may apply under state tax laws. Events which may cause limitations in the amount of the net operating losses that the Company may use in any one year include, but are not limited to, a cumulative ownership change of more than 50% over a three-year period. The Company has assessed the application of Section 382 during the years ended December 31, 2022 and concluded no limitation currently applies. The Company will continue to monitor activities in the future, and in the event the Company has subsequent changes in ownership, net operating losses and research and development credit carry-overs, which are reserved by the full deferred tax asset valuation allowance, could be limited and may expire unutilized.

During the years ended December 31, 2022 and 2021, the amount of gross unrecognized tax benefits increased by $1.1 million and $1.4 million, respectively. If the total amount of unrecognized tax benefits was recognized, it would not have an impact to the effective tax rate as it would be offset by the reversal of related deferred tax assets which are subject to a full valuation allowance.

A reconciliation of the beginning and ending amount of unrecognized tax benefits for the years ended December 31, 2022 and 2021 is as follows (in thousands):

	Year ended December 31,	
	2022	2021
Balance, beginning of year	$ 7,390	$ 5,972
Increase related to current year tax positions	1,100	1,418
Balance, end of year	$ 8,490	$ 7,390

The Company recognizes interest and penalties related to uncertain tax positions as part of the income tax provision. To date, such interest and penalties have not been material.

The Company files federal and state income tax returns. To date, the Company has not been subject to any federal or state income tax audits. As of December 31, 2022, all tax years remain open to examination.

(16) Statements of cash flows

The supplemental cash flow information consists of the following (in thousands):

	Year ended December 31,		
	2022	2021	2020
Cash paid for interest	$ 563	$ 969	$ 1,368
Cash paid for income taxes	$ 37	$ 3	$ 108
Non cash investing and financing activities:			
Property and equipment transferred to inventory (1)	$ 2,680	$ —	$ —
Inventory transferred to property and equipment (2)	$ —	$ 2,705	$ —
Change in accounts payable and accrued liabilities related to purchases of property and equipment	$ (46)	$ 828	$ (118)
Release of repurchase rights on early exercised options	$ —	$ —	$ 328

(1) Primarily relates to Beacons that were located at the Company's Lexington, Massachusetts laboratory which the Company subleased at the end of 2022. As a result of subleasing the facility, these Beacons were transferred from Lexington and are now classified in inventory as of the fourth quarter of 2022.

(2) Primarily relates to Beacons that were transferred to the Company's BioFoundry operations in the first and second quarter of 2021. As a result of the growth of the Company's BioFoundry operations, including growth in the number of Beacons used to fulfill strategic partnerships and services agreements, beginning in the third quarter of 2021, Beacons that at inception are planned to be used in the Company's BioFoundry operations will be categorized as "Purchase of property and equipment."

(17) Commitments and contingencies

Licensing agreements

In October of 2011, the Company entered into a license agreement, which was subsequently amended in March 2016 ("UC Agreement"), with The Regents of the University of California ("UC Regents"), pursuant to which UC Regents granted the Company an exclusive, sublicensable, worldwide license under certain patent rights owned by UC Regents related certain of the Company's products. The Company paid UC Regents upfront payments totaling $15,000 in connection with executing the UC Agreement. In addition, the Company issued 250,992 shares of common stock to certain persons associated with UC Regents in July 2013.

The Company pays UC Regents a sub-single digit percentage royalty on the Company's net sales of certain products covered by the licensed patents, subject to an annual minimum royalty payment of $10,000. The UC Agreement will continue until the expiration of the last to expire patent or last to be abandoned patent application that is licensed to the Company, unless terminated earlier in accordance with the terms of the UC Agreement.

Legal proceedings

From time to time, the Company may be involved in legal and administrative proceedings and claims of various types. The Company records a liability in its financial statements for these matters when a loss is known and considered probable and the amount can be reasonably estimated. The Company does not recognize gain contingencies until they are realized. Legal costs incurred relating to loss contingencies are expensed as incurred.

AbCellera Biologics Litigation

In July through September 2020, AbCellera Biologics Inc. ("AbCellera") filed a series of complaints in the United States District Court for the District of Delaware, alleging that the Company infringed and continues to infringe, directly and indirectly, the following patents exclusively licensed by AbCellera by making, using, offering for sale, selling and/or importing the Company's Beacon and Culture Station instruments and the OptoSelect chips, and sale of the Opto Plasma B Discovery Workflow: U.S. Patent Nos. 10,107,812, 10,274,494, 10,466,241, 10,578,618, 10,697,962, 10,087,408, 10,421,936, 10,704,018, 10,718,768, 10,738,270, 10,746,737, 10,753,933, 10,775,376, 10,775,377, and 10,775,378. The University of British Columbia ("UBC"), the owner of the patents, joined AbCellera as a named plaintiff in the lawsuits. AbCellera and UBC are seeking, among other things, judgment of infringement, a permanent injunction and damages (including lost profits, a reasonable royalty, reasonable costs and attorney's fees, and treble damages for willful infringement). In addition to procedural motions, the Company has filed an answer and counterclaims in response to each of the lawsuits. The Company's counterclaims in each lawsuit include counts for declaratory judgment of non-infringement of the asserted patents, for declaratory judgment of invalidity of the asserted patents, for declaratory judgment of unenforceability of the asserted patents due to inequitable conduct, and unfair competition under state and federal law.

The Company filed a motion to transfer the lawsuits to the United States District Court for the Northern District of California, which was granted and where the lawsuits have been consolidated and are now pending ("Consolidated Lawsuit"). On May 6, 2021 and pursuant to Court Order, AbCellera and UBC reduced, without prejudice, the asserted patents in the consolidated lawsuit to the following: US Patent Nos. 10,087,408, 10,421,936, 10,738,270, 10,697,962, 10,753,933, 10,775,376 and 10,775,378.

On July 1, 2021, the court issued a Case Management Order that, among other things, scheduled a jury trial date of December 12, 2022, and requires AbCellera and UBC to reduce the number of asserted patents to no more than two, and the total asserted patent claims to no more than four per patent prior to the trial.

In July 2021 and August 2021, the Company filed petitions for inter Partes Review ("IPR") with United States Patent and Trademark Office ("USPTO"), challenging the validity of various asserted claims of U.S. Patent No. 10,087,408 and all asserted claims of U.S. Patent Nos. 10,421,936 and 10,739,270. In August 2021, the court stayed the Consolidated Lawsuit pending the outcome of the IPR proceedings.

In January 2022, the Patent Trial and Appeal Board ("PTAB") of the USPTO issued a decision instituting IPR on U.S. Patent No. 10,087,408 and a decision denying IPR on U.S. Patent No. 10,421,936. In February 2022, the PTAB issued a decision denying IPR on U.S. Patent No. 10,739,270. More recently, in January 2023, the PTAB issued a decision upholding the validity of the challenged claims in U.S. Patent No. 10,087,408. The consolidated lawsuits remain stayed at this time.

The Company believes that the patent assertions by AbCellera and UBC are without merit and it intends to defend itself vigorously. The Company also intends to proceed with its claims and counterclaims against AbCellera and UBC. Outcomes in litigation can be uncertain and it is possible a court may disagree with the Company's position. An adverse determination in these lawsuits could subject the Company to significant liabilities, require it to seek licenses from or pay royalties to AbCellera and/or UBC, or prevent it from manufacturing, selling or using certain of the Company's products, any of which could have a material adverse effect on the Company's business, financial condition, results of operations and prospects.

Securities Class Action

In December 2021, Victor J. Ng filed a securities class action complaint ("Securities Class Action"), which was amended on July 25, 2022. The Securities Class Action is on behalf of all persons who purchased or otherwise acquired: (a) Berkeley Lights common stock pursuant and/or traceable to certain July 2020 IPO offering documents and/or (b) securities of Berkeley Lights between July 17, 2020 and January 5, 2022, inclusive. The complaint alleges claims under §§10(b) and 20(a) of the Securities Exchange Act of 1934 ("Exchange Act") and Rule 10b-5 promulgated thereunder as well as §§11, 12(a)(2) and 15 of the Securities Act. It names as defendants the Company, certain of the Company's current and former senior executives and directors, the underwriter firms that sponsored the Company's July 2020 IPO, and three firms that invested in the Company. The Company believes that the assertions in the Securities Class Action are without merit and intends to defend itself vigorously. Outcomes in litigation can be uncertain and it is possible a court may disagree with the Company's positions. An adverse determination in the Securities Class Action could subject the Company to significant liabilities, which could have a material adverse effect on the Company's business, financial condition, results of operations and prospects.

Derivative Action

In March 2022, Trung Nguyen filed a shareholder derivative complaint on behalf of nominal defendant Berkeley Lights, Inc., alleging that certain of the Company's current and former directors and certain of the Company's current and former senior executives breached their fiduciary duties to the Company. The complaint also alleged that certain of the Company's current and former directors and former senior executives used material, non-public information to improperly profit from the sale of Company stock, and that certain of the Company's current and former senior executives owe the Company contribution for violations of sections 10(b) and 21D of the Exchange Act.

No provision has been made for litigation because the Company believes that it is not probable that a liability had been incurred as of December 31, 2022.

The Company is not currently involved in any other claims or legal actions, nor is management aware of any potential claims or legal actions, for which the ultimate disposition could have a material adverse effect on the Company's financial position, results of operations, or liquidity.

Purchase commitments

The Company has entered into various purchase agreements, including inventory-related agreements with its contract manufacturers. Once these orders are placed, they are generally cancelable by providing notice prior to the expected ship date, however such cancellations could result in the Company incurring certain charges depending on the timing. The Company had non-cancellable purchase obligations to contract manufacturers and other suppliers of $36.7 million at December 31, 2022.

Product warranty

The table below represents the activity in the product warranty accrual included in accrued expenses and other current liabilities on the consolidated balance sheets (in thousands):

	December 31,		
	2022	**2021**	**2020**
Balance, beginning of period	$ 1,085	$ 1,271	$ 1,065
Adjustments to existing warranties	(571)	(707)	(490)
Provision for new warranties	813	1,217	1,440
Settlement of pre-existing warranties	(578)	(696)	(744)
Balance, end of period	$ 749	$ 1,085	$ 1,271

(18) Net loss attributable to common stockholders per share

Potentially issuable shares of common stock include shares issuable upon the exercise of outstanding employee stock option awards and unvested restricted stock units.

The following table sets forth the computation of basic and diluted earnings per common share (in thousands, except share and per share data):

	Year ended December 31,		
	2022	2021	2020
Numerator			
Net loss	$ (98,040)	$ (71,724)	$ (41,584)
Cumulative undeclared dividends on Series D convertible preferred stock	—	—	(1,735)
Net loss attributable to common stockholders, basic and diluted	$ (98,040)	$ (71,724)	$ (43,319)
Denominator			
Weighted-average shares used to compute net income per share, basic and diluted (1)	68,868,596	66,707,129	31,192,752
Net loss per share			
Net loss per share attributable to common stockholders, basic and diluted	$ (1.42)	$ (1.08)	$ (1.39)

(1) Includes the impact of the purported shares the Company believes were sold on the open market between October 7, 2023 and November 3, 2023. See Note 12 for further information.

Since the Company was in a loss position for all periods presented, basic net loss per share attributable to common stockholders is the same as diluted net loss per share attributable to common stockholders, as the inclusion of all potential shares of common stock outstanding would have been anti-dilutive. The following shares of common stock equivalents were excluded from the calculation of diluted net loss per share attributable to common stockholders for the periods presented as they had an anti-dilutive effect:

	December 31,		
	2022	2021	2020
Options to purchase common stock	7,815,288	6,732,197	9,739,334
Restricted stock units	4,400,454	906,294	—
Total	12,215,742	7,638,491	9,739,334

(19) Segments

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker is its Chief Executive Officer. The Company has one business activity and there are no segment managers who are held accountable for operations. Accordingly, the Company has one operating segment. The Company's principal operations and decision-making functions are located in the United States.

The following table provides the Company's revenues by geographical market based on the location where the services were provided or to which product was shipped (in thousands):

	Year ended December 31,		
	2022	2021	2020
North America	$ 38,319	$ 41,231	$ 32,544
Asia Pacific (1)	26,682	35,215	19,383
Europe	13,594	8,942	12,376
	$ 78,595	$ 85,388	$ 64,303

(1) Asia Pacific includes Australia.

As of December 31, 2022 and 2021, substantially all of the Company's long-lived assets are located in the United States.

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We carried out an evaluation, under the supervision and with the participation of management, including our principal executive officer and principal financial officer, of the effectiveness of our "disclosure controls and procedures" as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on that evaluation, our principal executive officer and principal financial officer concluded that as of December 31, 2022 our disclosure controls and procedures were effective at a reasonable assurance level to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

We also carried out an evaluation, under the supervision and with the participation of management, including our principal executive officer and principal financial officer, of our "internal control over financial reporting" to determine whether any changes in our internal control over financial reporting occurred during the three months ended December 31, 2022 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on that evaluation, there were no such changes in our internal control over financial reporting that occurred during the three months ended December 31, 2022.

Management's Annual Report on Internal Control over Financial Reporting

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act). Management conducted an assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2022 based on the criteria set forth in Internal Control – Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013). Based on this assessment, management, including our principal executive officer and our principal financial officer, has concluded that the Company's internal control over financial reporting was effective as of December 31, 2022 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with GAAP.

Limitations on the Effectiveness of Controls

Control systems, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control systems' objectives are being met. Further, the design of any system of controls must reflect the fact that there are resource constraints, and the benefits of all controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within our Company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of error or mistake. Control systems can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

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.

We have adopted a written code of business conduct and ethics that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer, controller, or persons performing similar functions. A current copy of the code is posted on the Governance section of our investor relations website, which is located at www.investors.berkeleylights.com. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for our principal executive officer, principal financial officer, principal accounting officer, controller or persons performing similar functions, or any executive officer or director, we will disclose the nature of such amendment or waiver on our website or in a Current Report on Form 8-K.

The remaining information required under this item is incorporated herein by reference to our Proxy Statement pursuant to Regulation 14A under the Exchange Act, as amended, which Proxy Statement is expected to be filed with Securities and Exchange Commission not later than 120 days after the close of our fiscal year ended December 31, 2022.

Item 11. Executive Compensation.

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

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

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

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

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

Item 14. Principal Accounting Fees and Services.

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

PART IV

Item 15. Exhibits and Financial Statement Schedules.

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

(1) Financial Statements

The financial statements filed as part of this Annual Report are included in Part II, Item 8 of this Annual Report.

(2) Financial Statement Schedules

Financial statement schedules have been omitted in this Annual Report because they are not applicable, not required under the instructions or the information requested is set forth in the financial statements or related notes thereto.

(3) List of Exhibits required by Item 601 of Regulation S-K

Exhibit number	Exhibit description	Incorporated by reference			Filed here with
		Form	Date	Number	
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	12/21/22	2.1	
3.1	Amended and Restated Certificate of Incorporation of Berkeley Lights, Inc.	8-K	7/21/20	3.1	
3.2	Amended and Restated Bylaws of Berkeley Lights, Inc.	8-K	7/21/20	3.2	
4.1	Reference is made to exhibits 3.1 through 3.2				
4.2	Form of Common Stock Certificate	S-1/A	07/13/20	4.2	
4.3	Fifth Amended and Restated Investors' Rights Agreement, dated March 28, 2018, by and among Berkeley Lights, Inc. and the investors listed therein.	S-1	06/26/20	4.3	
4.4	Description of Berkeley Lights Inc.'s Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934	10-K	03/12/21	4.5	
10.1	Amended and Restated Loan and Security Agreement, dated June 30, 2021, by and between East West Bank and Berkeley Lights, Inc.	8-K	07/07/21	10.1	
10.1(a)#	Berkeley Lights, Inc. 2011 Equity Incentive Plan, as amended.	S-1	06/26/20	10.1(a)	
10.1(b)#	Form of Notice of Stock Option Grant and Stock Option Agreement under the 2011 Equity Incentive Plan.	S-1	06/26/20	10.1(b)	
10.2(a)#	Berkeley Lights, Inc. 2020 Incentive Award Plan.	S-1/A	07/13/20	10.2(a)	
10.2(b)#	Form of Stock Option Grant Notice and Stock Option Agreement under the 2020 Incentive Award Plan.	S-1/A	07/13/20	10.2(b)	
10.2(c)#	Form of Restricted Stock Award Agreement under the 2020 Incentive Award Plan.	S-1/A	07/13/20	10.2(c)	
10.2(d)#	Form of Restricted Stock Unit Award Grant Notice under the 2020 Incentive Award Plan.	S-1/A	07/13/20	10.2(d)	
10.3#	2020 Employee Stock Purchase Plan.	S-1/A	07/13/20	10.3	
10.4#	Non-Employee Director Compensation Program.	10-K	03/12/21	10.4	
10.5	Form of Indemnification Agreement for directors and officers.	S-1/A	07/13/20	10.5	
10.6#	Form Executive Change in Control Severance Agreement	S-1/A	07/13/20	10.6	
10.7#	Employment Agreement, by and between Berkeley Lights, Inc. and Eric Hobbs, Ph.D.	S-1/A	07/13/20	10.7	

10.8#	Employment Agreement, by and between Berkeley Lights, Inc. and Keith Breinlinger, Ph.D.	S-1/A	07/13/20	10.9	
10.9#§	Strategic/Scientific Advisor Consulting Agreement, dated as of April 1, 2017, by and between Berkeley Lights, Inc. and James Rothman, Ph.D., as amended.	S-1	06/26/20	10.10	
10.10(a)	Lease, dated as of November 3, 2014, by and between Berkeley Lights, Inc. and Emery Station Joint Venture, LLC, as amended.	S-1/A	07/13/20	10.12(a)	
10.10(b)	Lease, dated as of February 14, 2020, by and between Berkeley Lights, Inc. and Emery Station Office II, LLC.	S-1	06/26/20	10.11(b)	
10.10(c)	Sublease dated as of March 21, 2019, by and between Berkeley Lights, Inc. and Exponential Interactive, Inc.	S-1	06/26/20	10.11(c)	
10.10(d)	Lease, dated as of June 24, 2020, by and between Berkeley Lights, Inc. and Emery Station Office II, LLC.	S-1/A	07/13/20	10.12(d)	
10.11§	Collaboration Agreement, dated as of September 13, 2019, by and between Berkeley Lights, Inc. and Ginkgo Bioworks, Inc.	S-1	06/26/20	10.12	
10.12A§	Exclusive License, dated as of October 25, 2011, by and between Berkeley Lights, Inc. and The Regents of the University of California.	S-1	06/26/20	10.13A	
10.12B§	Amendment to Exclusive License, dated as of March 14, 2016, by and between Berkeley Lights, Inc. and The Regents of the University of California.	S-1	06/26/20	10.13B	
10.13A§	Terms and Conditions of Purchase, dated as of February 25, 2015, by and between Berkeley Lights, Inc. and Korvis, LLC.	S-1	06/26/20	10.15A	
10.13B§	Amendment No. 1 to Terms and Conditions of Purchase, dated as of April 23, 2019, by and between Berkeley Lights, Inc. and Korvis, LLC.	S-1	06/26/20	10.15B	
10.14	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	12/21/22	10.1	
10.15	Voting Agreement dated as of December 21, 2022, among Berkeley Lights, Inc., Icleand Merger Sub Inc., IsoPlexis Corporation and the stockholders party thereto	8-K	12/21/22	10.2	
10.16#	Transition and Separation Agreement, by and between Berkeley Lights, Inc. and Eric Hobbs	10-Q	05/09/22	10.1	
10.17#	Transition and Separation Agreement, by and between Berkeley Lights, Inc. and Kurt Wood	10-Q	05/09/22	10.2	
10.18#	Employment Agreement, by and between Berkeley Lights, Inc. and Siddhartha Kadia	10-Q	05/09/22	10.3	
10.19#	Change in Control and Severance Agreement, by and between Berkeley Lights and Siddhartha Kadia	10-Q	05/09/22	10.4	
10.20#	Employment Offer Letter, by and between Berkeley Lights, Inc. and Mehul Joshi	10-Q	08/09/22	10.5	
10.21#	Employment Offer Letter, by and between Berkeley Lights, Inc. and Scott Chaplin	10-Q	11/08/22	10.2	
21.1	Subsidiaries of Berkeley Lights, Inc.				X
23.1	Consent of Independent Registered Public Accounting Firm.				X
24.1	Power of Attorney (included in the signature page to this Annual Report)				X
31.1	Certification of Principal Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
31.2	Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
32.1	Certification of Principal Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				X

32.2	Certification of Principal Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X
101.INS	XBRL Instance Document	X
101.SCH	XBRL Taxonomy Extension Schema Document	X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	X
104	Cover Page Interactive Data File - formatted in Inline XBRL and included as Exhibit 101	X

# 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) would likely cause competitive harm if publicly disclosed.

+ Schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. Berkeley Lights, Inc. hereby undertakes to furnish supplementally copies of any omitted schedules upon request by the SEC.

Item 16. Form 10-K Summary.

None.

Signatures

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

Berkeley Lights, Inc.

Date: February 23, 2023

By: /s/ Siddhartha Kadia Ph.D.

Siddhartha Kadia, Ph.D.
Chief Executive Officer

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

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
/s/ Siddhartha Kadia, Ph.D. Siddhartha Kadia, Ph.D.	Chief Executive Officer (Principal Executive Officer) and Director	February 23, 2023
/s/ Mehul Joshi Mehul Joshi	Chief Financial Officer (Principal Financial Officer)	February 23, 2023
/s/ J.Paul McClaskey J.Paul McClaskey	Chief Accounting Officer (Principal Accounting Officer)	February 23, 2023
/s/ John Chiminski John Chiminski	Director	February 23, 2023
/s/ Jessica Hopfield, Ph.D. Jessica Hopfield, Ph.D.	Director	February 23, 2023
/s/ Igor Khandros, Ph.D. Igor Khandros, Ph.D.	Director	February 23, 2023
/s/ Gregory Lucier Gregory Lucier	Director	February 23, 2023
/s/ Michael Moritz Michael Moritz	Director	February 23, 2023
/s/ Elizabeth Nelson Elizabeth Nelson	Director	February 23, 2023
/s/ James Rothman, Ph.D. James Rothman, Ph.D.	Director	February 23, 2023

CORPORATE INFORMATION

Executive Officers

Siddhartha Kadia, Ph.D.
Chief Executive Officer and Director

Mehul Joshi
Chief Financial Officer

J. Paul McClaskey
Senior Vice President, Chief Accounting Officer

Board of Directors

Siddhartha Kadia, Ph.D.
Chief Executive Officer and Director of PhenomeX Inc.

Gregory Lucier* (1, 2, 4)
Chief Executive Officer for Corza Health, Inc.

John Chiminski (1, 3, 4)
Executive Chair of Catalent Pharma Solutions

Jessica Hopfield, Ph.D. (2, 3, 4)
Member of Board of Directors of Insulet Corporation, Editas Medicine, Inc. and Maravai Life Sciences

Igor Khandros, Ph.D.
Chief Executive Officer of Nutcracker Therapeutics, Inc.

Michael Moritz
Managing Partner of Sequoia Capital

Elizabeth Nelson (1, 2, 3, 4)
Member of the Board of Directors of Upwork Inc.

James Rothman
Sterling Professor of Cell Biology, Chairman of the Yale School of Medicine's Department of Cell Biology

Peter Silvester (1, 2)
Former Senior Vice President and President of Life Sciences Solutions and Laboratory Products at Thermo Fisher Scientific Inc.

(= Chairperson of the Board; Board Committees: 1=Audit; 2=Compensation; 3=Nominating & Corporate Governance; 4= Transaction Committee)*

Further Information

Annual Meeting
Thursday, May 25, 2023, at 1:30 pm PDT
Virtually at:
www.virtualshareholdermeeting.com/CELL2023

Exchange Listing
Nasdaq (CELL)[1]

Independent Registered Public Accounting Firm
KPMG LLP

Investor Relations Contact
Suzanne Hatcher
Senior Vice President of Communications and Investor Relations
IR@phenomex.com

More Information
www.phenomex.com

Registrar and Transfer Agent
American Stock Transfer & Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219

Our website is located at https://www.phenomex.com, and our investor relations website is located at https://www.investors.phenomex.com/. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and our Proxy Statements, and any amendments to these reports, are available through our investor relations website, free of charge, after we file them with the SEC. Stockholders, including beneficial owners, may request a copy of our Annual Report on Form 10-K free of charge by contacting our Corporate Secretary, Scott Chaplin, at 5858 Horton Street, Suite 320, Emeryville, California 94608.

[1] PhenomeX, Inc. was formerly known as Berkeley Lights, Inc. and previously traded on Nasdaq under the symbol "BLI."