

Risk Factors Comparison 2024-03-01 to 2023-03-10 Form: 10-K

Legend: **New Text** ~~Removed Text~~ Unchanged Text **Moved Text Section**

Risks Related to Our Financial Position and Need for Capital 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 and maintain profitability. We have incurred significant losses since our inception. For the years ended December 31, **2023 and 2022** ~~and 2021~~, we incurred net losses of \$ **52.5 million and \$ 60.8 million** ~~and \$ 73.5 million~~, respectively. As of December 31, **2022-2023**, we had an accumulated deficit of \$ **375.428.94** 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 **equity** ~~our convertible preferred stock~~, the incurrence of indebtedness, our initial public offering, and to a lesser extent, revenue derived from our Growth Direct platform and non-commercial contracts. We have devoted substantially all of our resources to the development and commercialization of our Growth Direct platform and to development activities related to advancing and expanding our 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. We may never be able to generate sufficient revenue to achieve or sustain profitability and our recent and historical growth should not be considered indicative of our future performance. Our limited operating history makes it difficult to evaluate our future prospects and the risks and challenges we may encounter. We ~~were established in 2006 and~~ launched our current second-generation Growth Direct platform in 2017 for which we are continuing to grow our manufacturing and sales and marketing capabilities. Consequently, predictions about our future success or viability may not be as accurate as they could be if ~~we~~ **our products** had a longer ~~operating~~ **commercial** history. While our product and services revenue has **continued to increase** ~~increase in recent periods~~, if our growth strategy **to grow and scale our business** is not successful, we may not be able to **achieve** ~~continue~~ **continued to grow our** revenue ~~growth or operations~~. Our limited operating history, evolving business and rapid growth make it difficult to evaluate our future prospects and the risks and challenges we may encounter, and we may not continue to grow at or near historical rates. In addition, as ~~a business with a limited operating history~~ **we seek to innovate in and disrupt the current microbial quality control market**, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown challenges. We are transitioning to a company capable of supporting commercial manufacturing, sales and marketing at scale **in the United States and abroad**. We may not be successful in such a transition and, as a result, our business may be adversely affected. Our ~~success~~ **business** depends on the **commercial** success of our Growth Direct platform, which may not be achieved or maintained. **Our business is dependent on sales of our Growth Direct systems and related consumables and services**. Our ability to achieve and maintain commercial market acceptance of our Growth Direct platform will depend on a number of factors, including: • significant acceptance by drug manufacturers of automated microbial quality control, or MQC, testing; • our ability to increase awareness of the capabilities of automated MQC testing and our technology and solutions; • our customers' willingness to adopt new technologies and workflows; • our ability to integrate our platform with our customers' existing workflows, including related to regulatory validation processes; • whether our platform reliably provides advantages over the conventional, manual method of MQC testing and other automated technologies and is perceived by customers to be cost effective; • the continued growth of the pharmaceutical and biopharmaceutical industry, in particular biologics ~~and~~ cell and gene therapies; • our ability to execute on our business strategy, including continuing to expand in the market for cell and gene therapies; • the rate of adoption of our platform and solutions by drug manufacturers; • prices we charge for our systems and consumables; • the relative reliability and robustness of our platform as a whole and the components of our platform; • our ability to develop new products for existing customers and to expand our capabilities within the MQC testing workflow; • our ability to expand the use of our platform with existing customers; • other competitive automated MQC testing platforms; and • the impact of our investments in product innovation and commercial growth. We cannot assure our stockholders that we will be successful in addressing each of these criteria or other criteria that might affect the market acceptance of our products. If we are unsuccessful in achieving and maintaining commercial market acceptance of our Growth Direct platform, our business, financial condition, results of operations and prospects could be adversely affected. Our operating results have fluctuated significantly in the past and will 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: • our customers' tendency to purchase our Growth Direct system, including multiple systems, in a single transaction, resulting in significant variations in sales of our systems over time; • 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; • seasonality in our business due to our customers' budgetary cycles and time off during the summer vacation; • lead time needed for validation prior to our customers' using and purchasing our consumables; • changes in demand for our consumables; • the timing and cost of, and level of investment in, technology development and commercialization activities, which may change from time to time; • the start ~~and~~ completion, **and output** of manufacturing runs; • **the costs of manufacturing and shipping our products or of providing services to our customers, which may impact our operating gross margin in any given period**; • system repairs or replacements that may impact our customers' confidence in us and our products and our reputation in the market; • the relative reliability and robustness of our platform; • 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; • future accounting pronouncements or changes in our accounting policies; • the ability of our sales organization to design and execute effective sales processes; and • general market conditions and other factors, including factors, such as inflation, unrelated to our operating performance or the operating performance of our competitors. The effect of ~~any single one of the factors- factor 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. We may continue to experience fluctuations in our operating results as a result of these factors. We **have in the past and may in the future** fail to meet our publicly announced guidance or other expectations about our business and future operating results, which could adversely affect our business, reputation and financial results and cause our stock price to decline. From time to time, we release earnings guidance in our quarterly and annual earnings conference calls, quarterly and annual earnings releases, or otherwise, regarding our future performance that represents our management' s estimates as of the date of release. This guidance includes forward- looking statements based on projections prepared by our management. Projections are based upon a number of assumptions and estimates that are based on information known when they are issued, and, while presented with numerical specificity, are inherently subject to significant business, economic, and competitive uncertainties and contingencies relating to our business, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. ~~These assumptions are inherently difficult to predict.~~ It can be expected that some or all of the assumptions underlying any guidance furnished by us will not materialize or will vary significantly from actual results. From time to time, we provide possible outcomes as high and low ranges, but these are not intended to imply that actual results could not fall outside of the suggested ranges. Our actual business results may vary significantly from such guidance due to a number of factors, many of which are outside of our control, including our customers' demand for our Growth Direct systems, the length of the sales cycle for purchases of our systems, customer site readiness and the lead time needed for validation of our systems prior to customers using and purchasing our consumables, **the costs of manufacturing and shipping our products or of providing services to our customers**, as well as the impact of global economic uncertainty and financial market conditions, geopolitical events, such as ~~the conflict~~ **conflicts** in Ukraine **and the Middle East**, rising inflation, rising interest rates, and ~~the coronavirus pandemic~~ **public health crises**, all of which ~~could have in the past and may in the future~~ adversely affect our business and ~~future~~ operating results. ~~There are no comparable recent events that provide insights on the probable effects of the coronavirus pandemic and current macro-economic uncertainty, and, as a result, the ultimate impacts of the coronavirus pandemic and /or the current macro-economic environment are highly uncertain and subject to change.~~ Furthermore, if we make downward revisions of our previously announced guidance, or if our publicly announced guidance of future operating results fails to meet expectations of securities analysts, investors, or other interested parties, we may experience adverse effects on our business and reputation and the price of our common stock could decline. ~~In January 2022, we announced that our actual commercial revenue for the fiscal year ended December 31, 2021 was below our previous guidance, and in August 2022, we announced a downward revision in our commercial revenue guidance for the fiscal year ended December 31, 2022. Given the uncertainty surrounding our ability to design and execute more effective sales processes, generate and convert sufficient sales leads with new customers and place additional systems with existing customers, we may continue to fail to meet our publicly announced guidance in the future.~~ 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. Investors are urged to exercise caution when using our guidance in making an investment decision regarding our common stock. Any failure to successfully implement our business strategy or the occurrence of any of the events or circumstances set forth in this Risk Factors section in this Annual Report on Form 10- K could result in the actual operating results being different from our guidance, and the differences may be adverse and material. If we cannot maintain the level of sales of our Growth Direct systems or the sales of our consumables and service contracts to existing customers declines, our future operating results would be adversely affected. ~~In the years ended December 31, 2022 and December 31, 2021, 22.8% and 16.7% of our revenue was generated from one customer, respectively. The revenue generated from these customers was derived from sales of our Growth Direct system, consumables and service contracts.~~ Many of our customers purchase multiple Growth Direct systems at the same time and we expect them to use these systems for many years before needing to purchase new systems. Our ability to generate revenue depends on our ability to sell our Growth Direct system to new customers or expand the use of our system by existing customers. **Our current commercial strategy includes targeting sales to customers that are receptive to entering into multi- system deals with us.** As a result, in the near term, we **have observed and we continue to** expect **that** a significant portion of our revenue to primarily be generated from a small number of different customers each year. We also rely on consumables and service contracts as a source of recurring revenue from our existing customers. These consumables and service contracts are purchased on an as- needed basis and, as a result, revenue from these sources may be subject to change, as customers' purchasing practices and policies change or their demand for our consumables and service contracts change. **For example, in the past, we have experienced occasions in which customers' facilities in which our Growth Direct systems were used have been closed or sold, which resulted in the reduction, suspension, or cessation of purchases of consumables at such sites.** If we are unable to sell our Growth Direct system to new customers, if our existing customers do not expand their use of our system, or if our existing customers decide to purchase fewer of our consumables and service contracts or terminate their relationships with us, our revenue could significantly decrease, which would have an adverse effect on our financial condition and results of operations and could adversely impact our ability to execute on our growth strategy. We may need to raise additional capital to fund our existing operations, improve our platform or

develop and commercialize new products or expand our operations. We expect to spend significant amounts to expand our existing operations, to continue to improve our Growth Direct platform and to develop new products ~~and consumables~~. Based upon our current operating plan, we believe our existing cash, cash equivalents, and investments **as of December 31, 2023** of \$ ~~138.95~~ **4.0** million, and anticipated cash flow from operations, will enable us to fund our operating expenses and capital expenditure requirements for at least twelve months following the date these consolidated financial statements were issued. This estimate and our expectation regarding the sufficiency of our existing cash, cash equivalents, and investments are based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Until such time, if ever, as we can generate sufficient cashflow, we may finance our cash needs through a combination of equity offerings and debt financings or other sources. We do not currently have any committed external source of funds. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. Our present and future funding requirements will depend on many factors, including: • our ability to achieve revenue growth; • **the costs of manufacturing and shipping our products or of providing services to our customers, which may impact our operating gross margins in any given period;** • the cost of expanding our operations, including our manufacturing facilities, 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 Growth Direct system; • 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; and • costs related to domestic and international expansion. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of our common stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. In addition, debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may be required to relinquish valuable rights to our technologies, intellectual property, future revenue streams or products or grant licenses on terms that may not be favorable to us. Furthermore, any capital raising efforts may divert our management from their day- to- day activities, which may adversely affect our ability to advance product development activities. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate product development or commercialization efforts. **Repair or replacement costs due to warranties..... financial condition and results of operations.** **Risks Related to Our Business and Strategy** **Our** ~~The ongoing coronavirus pandemic has impacted, and may continue to impact, our operations and may materially and adversely affect our business and financial results. Since late 2019, the coronavirus pandemic has spread globally, including to the Boston, Massachusetts area, where our primary offices and manufacturing facility are located. Although the U. S. government has announced that the public health emergency related to the coronavirus pandemic will end in May 2023, our business has been, and may continue to be, affected by the continuing effects of the coronavirus pandemic. The coronavirus pandemic continues to evolve, and has led to the implementation of various responses, including government imposed, shelter in place orders, quarantines, travel restrictions and other public health safety measures. In response to the spread of coronavirus, and its variants, and in accordance with direction from state and local government authorities, we have restricted access to our facilities mostly to personnel and third parties who must perform critical activities that must be completed on site, limited the number of such personnel that can be present at our facilities at any one time, and requested that most of our personnel work remotely. In the event that government authorities modify current restrictions, our employees conducting development or manufacturing activities may not be able to access our manufacturing space, and our core activities may be significantly limited or curtailed, possibly for an extended period of time. Any of these factors could severely impact our development activities, business operations and sales, or delay necessary interactions with manufacturing sites and other important contractors and customers. For example, we experienced a disruption in receiving supplies from third parties and a decrease in installations as a result of the shutdown of our customers' businesses. In addition, our sales and service processes have been significantly disrupted by our customers' coronavirus related restrictions and staffing shortages, which have impacted our customer site access and delayed systems placement timelines. These and other factors arising from the coronavirus pandemic could worsen in countries that are already afflicted with coronavirus, and its variants, could continue to spread, or could return to countries where the pandemic has been partially contained, and could further adversely impact our ability to conduct our business generally and have a material adverse impact on our operations and financial condition and results. The extent to which the outbreak may negatively impact our operations and results of operations or those of our third party manufacturers, suppliers, collaborators or customers will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate duration of the pandemic, subsequent waves of infection or variant strains, including the impact of the Delta and Omicron variants, the timing, availability, and effectiveness of vaccines as well as vaccination rates among the population, travel restrictions, and additional or modified government actions and private sector actions to contain the spread of coronavirus or treat its impact, such as social distancing, quarantines, lockdowns or business closures. The continued success of our business relies heavily on establishing and maintaining our position in the market as a leading provider of automated MQC testing. Our future profitability will depend on our ability to successfully execute and maintain a sustainable business model and generate continuous streams of revenue. Our business model is premised on **our position as** ~~the fact that we are and will continue to be~~ a leader in automated MQC testing and the competitive advantages ~~our that such~~ position creates. Our Growth Direct platform, among other things, is designed to reduce the amount of time for MQC testing and the opportunity for human error in what we believe is a more cost- effective manner than traditional MQC testing. However, if competitors develop and commercialize an automated MQC testing platform that is comparable to~~

ours and are able to obtain traction with customers, we may not be able to maintain our lead position and execute our business strategy, which could adversely affect our financial position and prospects. If we are unable to expand or continue to expand our customers in new growing areas of drug manufacturing, such as biologics and cell and gene therapies, continue to grow market adoption of our Growth Direct platform, and maintain our position as the industry leader in automated MQC testing, our business, prospects, financial condition and results of operation could be adversely affected. ~~It~~ We may not be successful in expanding difficult for us to implement our strategies for improving growth business with existing customers and driving adoption of our solutions with new customers. Our success will depend on our ability to expand our business with existing customers and to target new drug manufacturing customers to capture a greater share of the MQC testing value chain. Our ability to grow our business with existing customers will depend on our ability to broaden the application of our automated MQC testing to a larger portion of the MQC testing workflow and to increase the number of Growth Direct systems in their manufacturing facilities. Our ability to expand our business will also depend on our ability to attract new customers and to integrate our platform with new methods of manufacturing, such as cell and gene therapies. Future revenue growth will also depend on our ability to develop and market new products, technologies and solutions to meet our customers' evolving needs, as well as our ability to identify new applications and customers for our technology in additional industries beyond the drug manufacturing industry. As we continue to scale our business, we may find that certain of our products, certain customers or certain industries may require a dedicated sales force or sales personnel with different experience than those we currently employ. Identifying, recruiting and training additional qualified personnel would require significant time, expense and attention. If we are unable to drive new customer conversion to automated MQC and our Growth Direct platform, expand adoption of our Growth Direct platform into new industries and markets, or increase the usage and value of our platform to our customers, then our business, financial condition, results of operations and prospects could be adversely affected. We may not successfully implement our strategy to expand our Growth Direct platform to customers who manufacture cell and gene therapies. Our ability to execute our growth strategy to expand our Growth Direct platform to customers who manufacture cell and gene therapies depends upon our ability to integrate our platform with the novel manufacturing processes being developed for these therapies. Companies that manufacture cell and gene therapies are developing new approaches to handle this manufacturing method, including novel facility layouts, new processes and workflows, and new quality and risk management frameworks. Unlike traditional "small molecule" drug manufacturing, the manufacture of biologics, and such as cell and gene therapies in particular, is more time sensitive and subject to increased risk of contamination due to material handling and process change-over. There are also currently a small number of cell and gene therapies approved by the FDA. While we have experience providing automated MQC testing for customers that manufacture a number of these approved therapies, we may encounter challenges or unexpected issues as we apply our Growth Direct platform to testing a greater number of therapies as they are approved in future. We cannot be certain that we will be able to successfully or consistently integrate our platform with this novel manufacturing process. If we are unable to successfully expand our Growth Direct platform into this growing segment of therapeutic manufacturing, our business and financial position may be adversely affected. The size of the markets and forecasts of market growth for automated MQC testing and other of our key performance indicators are based on a number of complex assumptions and estimates, and may be inaccurate. We estimate annual total addressable markets and forecasts of market growth for our Growth Direct platform. 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 market studies, and other business data, including assumptions and estimates relating to our ability to generate revenue from the expansion of our platform into new drug manufacturing areas and new industries. 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 total addressable market and our forecasts of market growth for our current or future products may prove to be incorrect, and our key performance indicators may not reflect our actual performance. If the total 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. New product development involves a lengthy and complex process and we may be unable to develop or commercialize products on a timely basis, or at all. Products from our development programs will take time and considerable resources to develop, and may include improvements or changes to our systems, software and consumables. We may not be able to complete development and commercialize them on a timely basis, or at all. There can be no assurance that our development programs will produce commercial products and solutions and before we can commercialize any new products, we will need to expend significant funds in order to:

- conduct substantial research and development, which may include validation studies;
- further develop and scale our engineering and manufacturing processes to accommodate different products;
- further develop and scale our infrastructure to be able to analyze increasingly large amounts of data; and
- utilize data and analytical insights generated from existing Growth Direct platform in our research and development programs in order to advance these programs.

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

- failure of the product to perform as expected;
- higher costs than anticipated; and
- failure to reliably demonstrate the advantages of our products.

In addition, if we are unable to generate additional data and insights from our existing Growth Direct platforms, then we may not be able to advance these programs as quickly, or at all, or without significant additional investment, all of which could have a material adverse effect on our product development efforts. Even if we are successful in developing new products, it will require us to make significant additional investments in marketing and selling resources in order to commercialize any such products. **For example** As a result

, we **are currently preparing for the commercial launch of our rapid automated sterility test for use on the Growth Direct system, for which we have expended significant time and resources to develop. However, there can be no assurance that we will successfully commercialize this new sterility test or that this product will achieve acceptance by customers. We** may be unsuccessful in commercializing new products that we develop, which could adversely affect our business, financial condition, results of operations and prospects. Our customers use our Growth Direct platform as part of their quality- control workflow, which is subject to regulation by the FDA and other comparable regulatory authorities. We provide products and services used for quality- control testing in pharmaceutical product manufacturing. Our customers are subject to extensive regulations by the FDA and similar regulatory authorities in other countries, including, for example, cGMP regulations and associated requirements to validate the methods used to manufacture their products. To meet their regulatory compliance requirements, our customers have implemented quality- control workflows to monitor for microbial growth and contamination. While our Growth Direct platform is not regulated directly by the FDA or other comparable authorities and we have not verified our Growth Direct platform for compliance with such regulations, we have designed our platform to be integrated as part of a compliant quality- control workflow. If our Growth Direct platform is unable to meet regulatory standards for compliance or we are unable to update our platform to meet new regulatory requirements, we will lose customers and our business will be adversely affected. While under our agreements with our customers we are not liable for non- compliance of our Growth Direct platform, if a customer experienced a compliance failure due to our Growth Direct platform, or that the customer attributes to our Growth Direct platform, our reputation could be harmed and our business prospects adversely affected. If we are unable to manage our inventory and support demand for **existing and future products on** the Growth Direct platform ~~, as well as our future product offerings~~, our business could suffer. As the number of customers using the Growth Direct platform grows and our volume of installed systems increases, we will need to continue to increase our capacity for customer service and support, including maintenance services of our systems, and expand our manufacturing capabilities. As a result, we will also need to purchase additional equipment, some of which can take several months or more to procure, setup and validate, and increase our personnel levels to meet increased demand. Additionally, we maintain certain levels of inventory to support future manufacturing efforts. If our inventory should exceed our customer demand, then it may not be sold at a pace that keeps up with the development of our technology and may therefore become obsolete or no longer competitive in the marketplace. There is no assurance that any of these measures taken with respect to scale, expansion of personnel, equipment, manufacturing or services will be successfully implemented, or that we will have adequate space, including in our manufacturing facility, to accommodate such required expansion. **As- In addition, if** we commercialize additional products **in the future**, we will need to incorporate new equipment, implement new technology systems and 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 product delays, higher cost of product revenue, declining product quality, deteriorating customer service and slower responses to competitive challenges. A failure in any one of these areas could make it difficult for us to meet market expectations for our products and could damage our reputation and the prospects for our business. We have limited experience in marketing and sales, and if we are unable to improve the effectiveness of our marketing and sales organization ~~to adequately expand our business~~ with new and existing customers and address our customers' needs or to expand our customer base, our business may be adversely affected. We have limited experience in marketing and selling our products and we currently rely on a small team to make direct sales in countries around the world. There are significant risks involved with relying on our own marketing and sales capabilities, including our ability to design and execute effective sales processes, generate and convert sufficient sales opportunities into new customers and place additional systems with existing customers. We ~~are implementing improved~~ **have recently expanded our** sales **organization** processes, and **implemented measures designed to improve the effectiveness of our salesforce, but** there can be no assurance that those efforts will **translate into improved commercial outcomes** be successful. Furthermore, ~~in order to support our planned growth, we will need to increase our sales and marketing team.~~ Competition for employees capable of selling expensive instruments within the drug manufacturing industry is intense. There are significant expenses and risks involved with having our own sales and marketing team, including our ability to hire, train, retain, and appropriately incentivize a sufficient number of qualified individuals, generate sufficient sales leads and provide our sales and marketing team with adequate access to customers who may want to purchase our products, effectively manage a geographically dispersed sales and marketing team, and other unforeseen costs and expenses. 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. ~~Following the departure of our Chief Commercial Officer in August 2022, our Chief Executive Officer has assumed leadership responsibility over the commercial organization and is expected to continue in this capacity until a new commercial leader is hired.~~ 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 sales processes may also be disrupted by our announced organizational restructuring plan.~~ We may engage distributors or other strategic partners for the sale of our products **, such as in jurisdictions outside of the U. S.** We would exert limited control over these distributors, and if their sales and marketing efforts for our products are not successful, our business would be materially and adversely affected. We may not be successful in locating, qualifying and engaging distributors with local industry experience and knowledge, or we may not be able to enter into arrangements with them 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 distributors 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. Any of these issues could impair our ability to successfully place our Growth Direct systems and meet our revenue expectations. **If we are unable to improve our sales processes and expand our marketing and sales organization, whether independently or with third parties, then our business, financial condition, results of operations and**

prospects will be materially adversely affected. Our organizational restructuring plan, including a reduction in workforce, announced in August 2022, may not result in anticipated savings, could result in total costs and expenses that are greater than expected and could disrupt our business. On August 12, 2022, we announced an approximately 20% reduction in our workforce, including employees, contractors and temporary employees, in connection with an organizational restructuring plan. We may not realize, in full or in part, the anticipated benefits and cost savings from our cost reduction efforts due to unforeseen difficulties, delays or unexpected costs. If we are unable to realize the expected operational efficiencies, improved commercial execution and cost savings from the restructuring, our operating results and financial condition could be adversely affected. If future results of operations lag our expectations, we may undertake additional workforce reductions or restructuring activities. Our restructuring and any additional measures we might take to reduce costs could divert the attention of management, yield attrition beyond our intended reduction in workforce, reduce employee morale, or cause us to delay, limit, reduce or eliminate certain product development plans, each of which could have an adverse impact on our business, operating results and financial condition. This organizational restructuring plan may also reduce our existing customers' confidence in us, disrupt our sales initiatives for new system placements, and negatively impact our customer service operations. Our failure to adequately address any of these issues could have a material adverse effect on our business, operating results and financial condition. We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy. We have **devoted significant** experienced volatility in our revenue, however, given our recent efforts to streamline our business operations and refocus our personnel strategy, we anticipate **with the goal of achieving** resumed growth in our business operations. The volatility in our growth 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 engineers, client and account services personnel **and**, sales and marketing staff, **software, manufacturing, distribution and quality assurance personnel in order to develop and launch new products, innovate** and improve **and maintain** our technology to properly manage **existing products and successfully commercialize** our growth **platform and solutions**. 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. In addition, our compensation arrangements, such as our equity award programs, may not always be successful in attracting new employees and retaining and motivating our existing employees. We may need to issue additional equity securities to attract job candidates or issue additional securities **and reprice existing options** to retain personnel. In making employment decisions, job candidates and existing personnel often consider the value of the equity awards they would receive in connection with their employment and fluctuations in our stock price, or a perception that the market price of our stock may not increase or may increase more slowly than stock prices at other companies, may make it more difficult to attract, retain, and motivate employees. ~~Developing and launching new products and innovating and improving our existing products have required us to hire and retain additional engineering, sales and marketing, software, manufacturing, distribution and quality assurance personnel.~~ As we have grown, our employees have become more geographically dispersed. We serve customers located in multiple countries and plan to continue to expand to new countries 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. 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 such activities in a timely and efficient manner could adversely affect our operations and negatively impact our business and financial results. If we cannot compete successfully, we may be unable to increase or sustain our revenue, or achieve and sustain profitability. We currently primarily compete with established companies that provide consumables for MQC testing and with a limited number of established and early-stage companies that have automated MQC testing systems. In addition, our customers may also elect to continue to use the traditional MQC testing method 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 effectively against these organizations. In addition, competitors may be acquired by, receive investments from or enter into other commercial relationships with larger, well-established and well-financed companies. Certain of our competitors may be able to secure key inputs from vendors on more favorable terms, devote greater resources to marketing and promotional campaigns, adopt more aggressive pricing policies and devote substantially more resources to product development than we can. Further, competition in the automated MQC testing market, while currently

limited, may increase in future, and we may not be able to maintain our leading position in the industry as a result. If we are unable to compete successfully, we may be unable to increase market adoption and sales of our platform, which could prevent us from increasing our revenue or achieving profitability. We must develop new products, adapt to rapid and significant technological change and respond to introductions of new products by competitors to remain competitive. 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 products and services may become less desirable in the markets we serve, and our customers could move to new technologies offered by our competitors or decide to revert to the traditional MQC testing method. ~~Though~~ **Although** 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 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 **migrates away** ~~purchases a product from~~ **using our solutions to that of** a competitor. Without the timely introduction of new products, services and enhancements and, our offerings will likely become less competitive over time, **thus harming** ~~in which case~~ our competitive position and operating results could suffer. Accordingly, we focus significant efforts and resources on the development and identification of new technologies, products and markets to further broaden our offerings. To the extent we fail to timely introduce new and innovative products or services, adequately predict our customers' needs or fail to **achieve** ~~obtain desired levels of~~ market acceptance, our business may suffer and our operating results could be adversely affected. Due to the significant resources required to enable access in new markets, we must make strategic and operational decisions to prioritize certain markets, products and services. We may expend our resources to access markets and develop products and services that do not yield meaningful revenue or we may fail to capitalize on markets, products or services 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 a higher probability of success or greater revenue opportunity, such as the manufacture of cell and gene therapies. 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 platform. However, due to the significant resources required for the development of products and services 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, products or services may not lead to the development of any viable product or service and may divert resources away from better opportunities. Similarly, we may choose to pursue certain markets, which may not be as profitable as other markets that we did not pursue due to our limited resources. As a result, our business, financial condition, results of operations and prospects could be adversely impacted. The Growth Direct platform 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 Growth Direct platform includes the Growth Direct system, proprietary consumables and our LIMS connection software. While we rigorously test our platform and its components, there could be undetected errors or defects. Disruptions or other performance problems with our platform or with the components that comprise our platform may adversely impact our customers' manufacturing process, compliance workflow or business, harm our reputation and result in reduced revenue or increased costs, **such as those** associated with repairs ~~or~~, replacements **or reacquisitions of our systems**. ~~If that such challenges occur~~ ~~occur~~, we may also incur significant costs, the attention of our key personnel could be diverted, or other significant customer relations problems may arise. We may also be subject to warranty claims or breach of contract for damages related to errors or defects in our products. Additionally, we may be subject to legal claims arising from any defects or errors in our platform, and in the systems, consumables and software that comprise our platform. In the past, we have repaired, and in exceptional cases, replaced **or reacquired** Growth Direct systems under warranty. Our failure to **prevent** ~~or~~ adequately address any of foregoing risks ~~related to errors or defects with our platform~~ could have a material adverse effect on our business, operating results and financial condition. Our success depends on, among other things, the market's confidence that the Growth Direct platform is capable of substantially enhancing quality control in the conduct of manufacturing activities as compared to the traditional method of MQC testing and will enable more efficient or improved drug manufacturing. Pharmaceutical companies and contract **development and** manufacturing organizations, or **CMOs-CDMOs**, are likely to be particularly sensitive to defects and errors in the use of our platform, including if our platform fails to deliver meaningful improvements in MQC testing with results at least as good as the results generated using the traditional method of MQC testing, **or new methods of automated MQC testing being developed and sold by emerging competitors**. There can be no guarantee that our platform will meet the expectations **or needs** of these companies or **CMOs-CDMOs**. The complexity of our products and the amount of lead time required to deliver products 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. If there are delays in delivering our products to our customers, or if our products fail to perform as well as or better than traditional MQC testing **and competitive products** or fail to generate reliable results for our customers, our revenue could be reduced or delayed, which could adversely affect our business, financial condition, results of operations and prospects. These complexities also require that we train our customers to operate our Growth Direct platform, which is expensive and time consuming. Any misuse of our products, including as a result of inadequate training, could cause our products not to perform as expected or to fail to demonstrate the process advantages of our products. The training requirement may also deter some customers from utilizing our products. Any of these results could adversely affect our business, financial condition, results of operations and prospects. Potential product liability lawsuits against us could cause us to incur substantial liabilities and limit commercialization of any products that we may develop. The use of any product we may develop and the sale of any products exposes us to the risk of product liability claims. Product liability claims might be brought against us by pharmaceutical companies, **CMOs contract organizations** or others selling or otherwise coming into

contact with our products. If we cannot successfully defend against product liability claims, we could incur substantial liability and costs. In addition, regardless of merit or eventual outcome, product liability claims may result in: • impairment of our business reputation and significant negative media attention; • withdrawal of customers; • significant costs to defend the litigation; • distraction of management's attention from our primary business; • substantial monetary awards to claimants; • inability to commercialize a product; • product recalls or withdrawals; • decreased market demand for any product; and • loss of revenue. The product liability insurance we currently carry, and any additional product liability insurance coverage we acquire in the future, may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. A successful product liability claim, or series of claims, brought against us could cause our share price to decline and, if judgments exceed our insurance coverage, could adversely affect our results of operation and business, including preventing or limiting the commercialization of any products we develop. If we lose key management, cannot recruit qualified employees, directors, officers or other significant personnel or experience increases in our compensation costs, our business may be materially harmed. We are highly dependent on our management and directors, including our Chief Executive Officer, Robert Spignesi, among others. Due to the specialized knowledge each of our officers and key employees possesses with respect to our products and services and our operations, the loss of service of any of our officers or directors could delay or prevent the successful sales and expansion of our platform. We do not carry key person life insurance on our Chief Executive Officer or our other officers or directors. In general, the employment arrangements that we have with our executive officers do not prevent them from terminating their employment with us at any time. In addition, our future success and growth will depend in part on the continued service of our directors, employees and management personnel and our ability to identify, hire and retain additional personnel. If we lose one or more of our executive officers or key employees, our ability to implement our business strategy successfully could be seriously harmed. Furthermore, replacing executive officers and key employees may be difficult or costly and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, market and sell our products successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or effectively incentivize these additional key personnel on acceptable terms given the competition among numerous technology companies for similar personnel. ~~In addition, we rely on consultants and advisors to assist us in formulating our development and commercialization strategy. Our consultants and advisors may be engaged by entities other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. In August 2022, we implemented our organizational restructuring plan to reduce our operating expenses. In addition, we announced plans to explore strategic alternatives. These actions, and any future related actions or announcements, may make it increasingly difficult for us to hire and retain our executive officers, key employees, consultants and advisors. If we are unable to attract qualified personnel and retain our current employees, our ability to develop and sell our products could be limited and our business and customer relationships could be materially harmed.~~ We depend on our information technology systems, and any failure of these systems could harm our business. We depend on information technology and telecommunications systems for significant elements of our operations, including our knowledge management system, our customer reporting, our platform, advanced automation systems, and advanced application and LIMS connection 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, compliance and other infrastructure operations. These implementations can be expensive and require significant time and effort. These information technology and telecommunications systems support a variety of functions, including manufacturing operations, data analysis, quality control, customer service and support, billing, research and development activities, and general administrative activities. Information technology and telecommunications systems are vulnerable to damage from a variety of sources, including telecommunications or network failures, malicious software, bugs or viruses, human acts and natural disasters. Moreover, despite network security and back-up measures, some of our servers are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. Any disruption or loss of information technology or telecommunications systems on which critical aspects of our operations depend could have an adverse effect on our business and our reputation. 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 or our employees, customers and other parties. We manage and maintain our applications and data utilizing a combination of on-site systems and cloud-based data centers. We utilize external security and infrastructure vendors to manage parts of our data centers. These applications and data encompass a wide variety of business-critical information, including research and development information, customer information, commercial information and business and financial information. We, like all companies storing business-critical information, face a number of risks relative to protecting this critical information, including loss of access ~~risk~~, inappropriate use or disclosure, unauthorized access or exfiltration, inappropriate modification, inappropriate destruction, and the risk of our being unable to adequately monitor and audit and modify our controls over our critical information. This risk extends to the third-party vendors and subcontractors we use to manage this sensitive data or otherwise process it on our behalf. The secure processing, storage, maintenance and transmission of this critical information are vital to our operations and business strategy, and we devote significant resources to protecting such information. Although we take measures to protect sensitive data from unauthorized access, use or disclosure, our information technology and infrastructure may still be vulnerable to, and we have in the past experienced, attacks by hackers or viruses or breaches due to employee error, malfeasance or other malicious or inadvertent disruptions. Further, attacks upon information technology systems, including those involving system disrupting ransomware and digital extortion, **fraudulent**

messages purporting to be from legitimate individuals or organizations in order to induce actions directed by bad actors, sometimes known as “ phishing ”, and transmission of fraudulent invoices or other requests for payments by malicious organizations purporting to be legitimate vendors and suppliers, are increasing in their frequency, levels of persistence,

sophistication and intensity, and are being conducted by sophisticated and organized groups and individuals with a wide range of motives, capabilities, and expertise. We may also face increased cybersecurity risks due to our reliance on internet technology and the number of our employees who are working remotely, which may create additional opportunities for cybercriminals to exploit vulnerabilities. Furthermore, because the techniques used to obtain unauthorized access to, or to sabotage, systems change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. While we have measures in place to identify, detect and mitigate security threats and incidents, they are not failproof, so we may also experience security incidents that may remain undetected for an extended period. Any such incident could result in the compromise of our information systems, and the data stored there could be accessed, encrypted, corrupted, modified, publicly disclosed, lost or stolen. Any such incident could result in legal claims or proceedings, including for breaches of confidential information obligations with contractual counterparties, and liability under federal or state laws that protect the privacy of personal information, and regulatory penalties. Notice of breaches may be required to affected individuals, customers, or other state, federal or foreign regulators, and for extensive breaches, notice may need to be made to the media or State Attorneys General. Such a notice could harm our reputation and our ability to compete. Although we have implemented security measures to prevent, detect and respond to security incidents, our data is currently accessible through multiple channels, and there is no guarantee we can protect our data from breach. Unauthorized access to our information systems, and the loss, destruction or, dissemination of data stored within them could also disrupt or halt 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, federal, 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, 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 Federal Trade Commission, have adopted, or are considering adopting, laws and regulations concerning personal information and data security. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, international or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. ~~For example, the California Consumer Privacy Act, or CCPA, which increases privacy rights for California residents and imposes obligations on companies that process their personal information, came into effect on January 1, 2020. In 2020, the California residents voted the California Privacy Rights Act or the CPRA into law. The CPRA, which entered into force on January 1, 2023, amends the CCPA and imposes additional data protection obligations on covered businesses, including additional consumer rights processes, limitations on data uses, new audit requirements for higher risk data, and opt outs for certain uses of sensitive data. Similar laws have passed in Connecticut, Colorado, Utah and Virginia and other states have also proposed broad consumer privacy laws.~~ Such laws may have potentially conflicting requirements that would make compliance challenging. A number of other states have proposed their own comprehensive privacy laws, ~~some of which are similar to the above discussed recently passed laws.~~ Such proposed legislation, if enacted, may add additional complexity, variation in requirements, restrictions and potential legal risk, require additional investment of resources in compliance programs, impact strategies and the availability of previously useful data and could result in increased compliance costs and / or changes in business practices and policies. The existence of comprehensive privacy laws in different states in the country could make our compliance obligations more complex and costly and may increase the likelihood that we may be subject to enforcement actions or otherwise incur liability for noncompliance. In addition, laws in all 50 U. S. states require businesses to provide notice to consumers whose personally identifiable information has been disclosed as a result of a data breach. 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 EU General Data Protection Regulation, or EU GDPR, has extraterritorial reach and adds a broad array of requirements for handling personal data. ~~EU and the European Economic Area, or EEA, member states are tasked under the EU GDPR to enact, and have enacted, certain implementing legislation that adds to and / or further interprets the EU GDPR requirements and potentially extends our obligations and potential liability for failing to meet such obligations.~~ In particular, the EU GDPR includes obligations and restrictions concerning the consent and rights of individuals to whom the personal data relates, the transfer of personal data out of the European Economic Area, security breach notifications and the security and confidentiality of personal data. ~~The EU GDPR authorizes fines for certain violations of up to 4 % of global annual revenue or € 20 million, whichever is greater.~~ Further, from January 1, 2021, following Brexit, companies handling personal data of individuals in the UK have to comply with the United Kingdom GDPR, or the UK GDPR, which, together with the amended UK Data Protection Act 2018, retains the EU GDPR in UK national law. The **complex** UK GDPR mirrors the fines under the EU GDPR, i. e., fines up to the greater of € 20 million (€ 17.5 million) or 4 % of global turnover. The EU GDPR and **evolving nature of** the UK GDPR are largely aligned, but it is unclear how United Kingdom data protection laws and regulations will develop in the medium to longer term, and how data transfers to and from the United Kingdom will be regulated in the long term. This may lead to additional compliance costs,

including as a result of diverging international data privacy laws and regulations and related uncertainties. There can be no assurances that we will be successful in our efforts to comply with the multitude of U. S., state, federal, and foreign privacy and data security laws, and violations of such laws could result in increase our overall risk. The respective provisions and enforcement of the EU GDPR and UK GDPR may further diverge in the future and create additional regulatory challenges investigations and uncertainties significant fines, as well as civil claims including class actions, and reputational damage. We may evaluate strategic alternatives opportunities for our business, including through acquisitions, joint ventures or 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. We As part of our business strategy, we may opportunistically pursue acquisitions of businesses and assets. We also that we believe may pursue be complementary or synergistic with our own, or strategic alliances and joint ventures that leverage our technology and industry experience to expand our offerings or distribution. We have no experience with acquiring other companies businesses or assets and limited experience with forming strategic partnerships. We may not be able to find suitable collaborators or acquisition candidates, and we may not be able to complete such transactions on favorable terms, if at all. The competition for collaborators or acquisition candidates may be intense, and the negotiation process will be time consuming and complex. If we make any acquisitions, we may not be able to integrate these acquisitions successfully into our existing business, these acquisitions may not strengthen our competitive position, the transactions may be viewed negatively by customers or investors, we may be unable to retain key employees of any acquired business, relationships with key suppliers, manufacturers or customers of any acquired business may be impaired due to changes in management and ownership, and we could assume unknown or contingent liabilities. Any future acquisitions also could result in the incurrence of debt, contingent liabilities or future write-offs of intangible assets or goodwill, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects. We cannot guarantee that we will be able to fully recover the costs of any acquisition. Integration of an acquired company also may disrupt ongoing operations and require management resources that we would otherwise focus on developing our existing business. We may not realize the anticipated benefits of any acquisition, technology license, strategic alliance or joint venture. We also may experience losses related to investments in other companies, which could have a material adverse effect on our business, financial condition, results of operations and prospects. To finance fund any such acquisitions or joint ventures, we may choose from a number of financing alternatives that may be accompanied by drawbacks. For example, if we incur debt, we may be required to abide by restrictive covenants or security interests to secure such debt. If we issue equity shares of our common stock as consideration, which such issuances would dilute the ownership of our stockholders or, in the case of preferred equity, may impose preferential terms that are senior to those of our common stockholders. Additional funds may not be available on terms that are favorable to us, or at all. If the price of our Class A 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. Repair or replacement costs due to warranties we provide on our Growth Direct systems system could have a material adverse effect on our business, financial condition and results of operations. We provide a one- year limited assurance warranty on Growth Direct systems, which is included in the sales price. Existing and future warranties place us at the risk of incurring future repair or replacement costs. We establish our accrual for estimated warranty expenses based on historical information, current cost data and future forecasts. We exercise judgment in determining the expected product warranty costs, using estimated material, labor and other 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. As of December 31, 2023 2022, we had an amount reserved for warranty costs of \$ 0. 7-9 million. Substantial amounts of warranty claims could have a material adverse effect on our business, financial condition and results of operations. 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, cybersecurity, and directors' and officers' insurance. Any additional product liability insurance coverage we acquire in the future, may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and in the future we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses. A successful product liability claim or series of claims in which judgments exceed our insurance coverage could adversely affect our business, financial condition, results of operations and prospects, including preventing or limiting the commercialization of any products we develop. Operating as a public company makes 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, seek alternative insurance options 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. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect 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 We currently have limited international operations, but our business strategy incorporates potentially includes achieving significant and increasing international expansion. We currently maintain a small sales force internationally to customers and engage one distributor sites outside of the U. S. As a result, we have established relationships with customers outside of the United States U. S. and may in the future intend to expand our international customer base. To that end, our staff is located in North America, Europe and the Asia- Pacific region, and we intend to further expand our international presence. Doing business internationally involves a number of risks, including: • multiple, conflicting and changing laws and regulations such as privacy regulations, tax laws, export and import restrictions, tariffs, economic sanctions and embargoes, employment laws, regulatory requirements and other governmental approvals, permits and licenses; • failure by

us or our distributors to obtain approvals to conduct our business in various countries; • differing intellectual property rights; • complexities and difficulties in obtaining intellectual property protection, enforcing our intellectual property and defending against third-party intellectual property claims; • difficulties in staffing and managing foreign operations; • logistics and regulations associated with shipping systems and parts and components for systems and consumables, as well as transportation delays; • travel restrictions that limit the ability of marketing, presales, sales, services and support teams to service customers; • financial risks, such as longer payment cycles, difficulty collecting accounts receivable, the impact of local and regional financial crises on demand and payment for our products and exposure to foreign currency exchange rate fluctuations; • international trade disputes that could result in tariffs and other protective measures; • natural disasters, the severity and frequency of which may be amplified by global climate change, 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, including severe penalties such as criminal and civil penalties, disgorgement and other remedial measures, that relate to the U. S. Foreign Corrupt Practices Act, the U. K. Bribery Act 2010 and similar anti-bribery and anticorruption laws in other jurisdictions. 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. Certain legal and political risks are also inherent in foreign operations. There is a risk that foreign governments may nationalize private enterprises in certain countries where we may operate. In certain countries or regions, terrorist activities and the response to such activities may threaten our operations more than in the United States. Social and cultural norms in certain countries may not support compliance with our corporate policies, including those that require compliance with substantive laws and regulations. Also, changes in general economic and political conditions in countries where we may operate are a risk to our financial performance and future growth. **Additionally In addition, the in certain geographies, we may need to identify financially rely on distributors, partners and other commercially strong-collaborators to penetrate those markets, and customers there can be no assurance that we will be able to secure relationships with such parties for- or that such parties operations outside the United States who will comply with the high-legal and regulatory standards that are applicable we require is a risk to our business financial performance.** As we operate our business globally, our success will depend, in part, on our ability to anticipate and effectively manage these and other related risks. There can be no assurance that the consequences of these and other factors relating to our international operations will not have an adverse effect on our business, financial condition or results of operations. **Rising High** inflation rates could negatively impact our revenues and profitability if increases in the prices of our Growth Direct systems or a decrease in **consumer customer** spending results in lower sales. In addition, if our costs increase and we are not able to pass along these price increases to our customers, our net income would be adversely affected, and the adverse impact may be material. **Inflation rates, particularly in the United States, increased significantly in 2022.** Increased inflation may result in decreased demand for our products and services, increased operating costs (including our labor costs), reduced liquidity, and limitations on our ability to access credit or otherwise raise debt and equity capital. In addition, the United States Federal Reserve has raised, and may again raise, interest rates in response to concerns about inflation. Increases in interest rates, especially if coupled with reduced government spending and volatility in financial markets, may have the effect of further increasing economic uncertainty and heightening these risks. In an inflationary environment, we may be unable to raise the sales prices of our products and services at or above the rate at which our costs increase, which could / would reduce our profit margins and have a material adverse effect on our financial results and net income. We also may experience lower than expected sales and potential adverse impacts on our competitive position if there is a decrease in consumer spending or a negative reaction to our pricing. A reduction in our revenue would be detrimental to our profitability and financial condition and could also have an adverse impact on our future growth. In operating our business, we may experience inflationary pressures on significant cost categories including labor, materials and freight. An inflationary environment, including factors such as tight labor markets and increasing freight and materials prices, could make it more costly for us to do business. In order to meet the compensation expectations of our prospective and current employees due to inflationary factors, we may be required to increase our labor costs, including wages and employee benefits, or risk losing skilled workers to competitors. In addition, changes in global shipping capacity and demand as well as the cost of raw materials and commodities such as oil (including derivative products including fuel and plastics) could negatively impact our freight and materials costs. If we see additional pressure on our labor, materials and freight costs, we could see negative effects on our results of operations (including product costs), cash flows and overall financial condition. Global economic and political instability and **geopolitical** conflicts, ~~such as the conflict between Russia and Ukraine,~~ could adversely affect our business, financial condition or results of operations. Our business could be adversely affected by unstable economic and political conditions within the United States and foreign jurisdictions. **The global credit and geopolitical conflicts financial markets have experienced severe volatility and disruptions in the past several years. A severe or prolonged economic downturn, such as the conflict between Russia and Ukraine global financial crisis, could result in a variety of risks to our business, including our ability to raise additional capital when needed on acceptable terms, if at all. While There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. A weak or declining economy could also result in supply chain disruptions, volatile demand for our products, abrupt changes in our customers' buying patterns, limitations on our customers' access to financial resources and ability to satisfy obligations to us, or other adverse impacts to our ability to place our Growth Direct systems. Furthermore, although we do not have any customer or direct supplier relationships in either country Ukraine, Russia or the Middle East at this time, the current ongoing military conflict conflicts, in those**

regions and related sanctions, as well as export controls or actions that may be initiated by nations including the United States, the European Union or, Russia **or other jurisdictions** (e. g., **potential cyberattacks, disruption of energy flows, etc.**) and other potential uncertainties could adversely affect our business and / or our supply chain, business partners or customers, ~~and could cause demand for our products to be volatile, cause abrupt changes in our customers buying patterns, interrupt our ability to supply products, limit customers' access to financial resources and ability to satisfy obligations to us, or otherwise adversely impact our ability to place our Growth Direct systems.~~ In the event geopolitical tensions fail to abate or deteriorate further, additional governmental sanctions may be enacted adversely impacting the global economy, its banking and monetary systems, markets or customers for our products. Our employees, consultants and collaborators may engage in misconduct or other improper activities. We are exposed to the risk of fraud or other misconduct by our employees, consultants and collaborators. Misconduct by these parties could include intentional failures to comply with the applicable laws and regulations in the United States and abroad, report financial information or data accurately or disclose unauthorized activities to us. These laws and regulations may restrict or prohibit a wide range of pricing, discounting and other business arrangements. Such misconduct could result in legal or regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct, and any precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses, or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, we could be subject to significant civil, criminal and administrative penalties, which could have a material adverse 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, which could have a material adverse impact on our business. ~~We and our employees are increasingly utilizing social media tools as a means of communication both internally and externally. Despite our efforts to monitor evolving social media communication guidelines and comply with applicable rules, there is risk that the use of social media by us or our employees to communicate about our products or business may cause us to be found in violation of applicable requirements. In addition, our employees may knowingly or inadvertently make use of social media in ways that may not comply with applicable laws and regulations, our policies and other legal or contractual requirements, which may give rise to regulatory enforcement action, liability, lead to the loss of trade secrets or other intellectual property or result in public exposure of personal information of our employees, customers and others. Furthermore, negative posts or comments about us or our products in social media could seriously damage our reputation, brand image and goodwill. Any of these events could have a material adverse effect on our business, prospects, operating results and financial condition and could adversely affect the price of our Class A common stock. Increasing attention to environmental, social and governance matters may impact our business, financial results or stock price. Companies across all industries are facing increasing scrutiny from stakeholders related to their environmental, social and governance (ESG) practices and disclosures, including practices and disclosures related to climate change, diversity and inclusion and governance standards. Investor advocacy groups, certain institutional investors, lenders, investment funds and other influential investors are also increasingly focused on ESG practices and disclosures and in recent years have placed increasing importance on the implications and social cost of their investments. In addition, government organizations are enhancing or advancing legal and regulatory requirements specific to ESG matters. The heightened stakeholder focus on ESG issues related to our business requires the continuous monitoring of various and evolving laws, regulations, standards and expectations and the associated reporting requirements. A failure to adequately meet stakeholder expectations may result in noncompliance, the loss of business, reputational impacts, diluted market valuation, an inability to attract customers and an inability to attract and retain top talent. In addition, our adoption of certain standards or mandated compliance to certain requirements could necessitate additional investments that could impact our profitability.~~ Risks Related to Manufacturing and Supply If our **sole primary** manufacturing and development facility becomes damaged or inoperable or we are required to vacate our existing facility, our ability to conduct and pursue our manufacturing and development efforts will be jeopardized. We currently conduct our **primary** development and manufacturing at **our** a single facility located in Lowell, Massachusetts. Our facility and equipment could be harmed or rendered inoperable or inaccessible by natural or man- made disasters, the severity and frequency of which may be amplified by global climate change, or other circumstances beyond our control, including fire, power loss, communications failure, war or terrorism, or another catastrophic event, such as a pandemic or similar outbreak or public health crisis, which may render it difficult or impossible for us to support our customers and develop products. The inability to manufacture our systems and consumables could develop if our facility is inoperable or suffers a loss of utilization for even a short period of time and may result in the loss of customers or harm to our reputation. Furthermore, our facility and the equipment we use to perform our manufacturing and development 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 manufacturing and development efforts, we may be unable to negotiate commercially reasonable terms to engage with the third party. ~~Although~~ **To mitigate certain of these risks associated with the manufacture of our consumables, we have constructed** are working to complete a back- up **consumable** manufacturing facility in Lexington, Massachusetts, ~~it is not complete and these risks are not yet mitigated.~~ **While we believe that we could** We also store a certain amount of inventory of components of our products at our Lowell, Massachusetts **if necessary, transfer our manufacturing capabilities to our back- up** facility, ~~.~~ We carry insurance for damage to our property and the ~~there can be~~ disruption of our business, but this insurance may not ~~no~~ cover all of the risks associated with damage or disruption to **assurance that we would achieve such transfer in a timely manner** our ~~or~~ 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 **and mitigate disruption to our overall business**. Our manufacturing operations are dependent upon third- party suppliers, including single- source suppliers,

making us vulnerable to supply shortages and price fluctuations, which could harm our business. We source the components of our Growth Direct system and consumables from third- party suppliers. We do not have supply agreements with most of our suppliers beyond purchase orders and, although we maintain an inventory of components, forecasted amounts may be inaccurate and we may experience shortages as a result of serious supply problems with these suppliers. There can be no assurance that our supply of components will not be limited, interrupted, or of satisfactory quality or continue to be available at acceptable prices. For example, we experienced disruptions to our supply chain as a result of the coronavirus pandemic and may experience additional disruptions in the future. Certain critical components of our Growth Direct system and consumables we obtain from single suppliers and the loss of supply from any of these suppliers could materially adversely affect our business. To protect against such loss, we maintain, or are working to obtain, sufficient inventory of these components to allow us to continue to manufacture our systems and consumables during the period required to qualify a new supplier. For example, the manufacturer of the camera used in our Growth Direct system ~~intends to discontinue~~ **discontinued** production of the camera, and we have obtained a supply we believe is sufficient to allow us to **meet customer demand while** ~~qualify~~ **qualifying** a new camera supplier. While we believe we have, or will have, sufficient inventory to provide protection against changes in our sole suppliers, our estimates of the length of time required to qualify a new supplier or inventory level required to manufacture our systems and consumables during that time may be incorrect, and we may run out of inventory sooner than we anticipate. In addition, we have not obtained sufficient inventory for all of our single- source components and we may not be able to do so in the amounts we predict will be required. In addition, any change to a new supplier will require us to devote substantial time and resources, result in additional costs, and could involve a period in which our products might not be produced in a timely or consistent manner. We may also be unable to enter into agreements with new suppliers on commercially reasonable terms or at all. The occurrence of any of these events could adversely affect our business and customer relationships. In addition, loss of any critical component provided by a single- source supplier could require us to change the design of our manufacturing process based on the functions, limitations, features and specifications of the replacement components. Several other non- critical components and materials that comprise our Growth Direct platform are currently manufactured by a single supplier or a limited number of suppliers. In many of these cases, we have not yet qualified alternate suppliers and rely upon purchase orders, rather than long- term supply agreements. A supply interruption or an increase in demand beyond our current suppliers' capabilities could harm our ability to manufacture our products unless and until new sources of supply are identified and qualified. Our reliance on these suppliers subjects us to a number of risks that could harm our business, including: • interruption of supply resulting from modifications to or discontinuation of a supplier' s operations; • 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 products; • 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 products, and if our forecasts are incorrect, we may experience delays in shipments or increased inventory costs. To manage our operations with our third- party suppliers, we forecast anticipated product orders and material requirements to predict our inventory needs and enter into purchase orders on the basis of these requirements. Our limited historical commercial experience and recent 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, we or our suppliers may be unable to meet our demand. In addition, if we underestimate our component and material requirements, we may have inadequate inventory, which could interrupt, delay, or prevent delivery of our products to our customers. By contrast, if we overestimate our component and material requirements, we may have excess inventory, which would increase our expenses. Any of these occurrences would negatively affect our financial performance and business results. Shipping is a critical part of our business and any changes in our shipping arrangements or damages or losses sustained during shipping could adversely affect our business, financial condition, results of operations and prospects. Shipments of our products are subject to various regulations in the various countries in which we provide our products. For example, shipments of our growth media consumables may be required to comply with the shipping requirements promulgated by the U. S. Department of Transportation and the U. S. Federal Aviation Administration, as well as shipment rules established by the International Air Transport Association. If we are unable to comply with any of these rules or regulations, our ability to deliver our products in a timely manner may be adversely affected. In addition, even if we are able to comply with these rules and regulations, compliance can result in increased costs. In either event, our financial results and condition may be adversely affected. We also currently rely on third- party vendors for our shipping. If we are not able to negotiate acceptable pricing and other terms with these entities or they experience performance problems or other difficulties, it could negatively impact our operating results and our customers' experience. Our products could sustain serious damage or be lost in transit. If a product is damaged in transit, including damage due to consumable temperature excursion, 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. 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. Risks Related to Our Intellectual Property If we are unable to obtain and maintain sufficient intellectual property protection for our technology, including the Growth Direct 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 maintain, protect or enforce our intellectual property, third parties may be able to compete more effectively against us.

Our In addition, we may incur substantial litigation costs in our attempts to recover or restrict use of our intellectual property. As is the case with other technology companies, our success depends in large part on our ability to obtain and maintain protection of the intellectual property ~~we may own solely~~ **related to our products** and **technologies** ~~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 their uses, as we deem appropriate. However, obtaining **Obtaining , maintaining** and enforcing patents in our industry is costly, time consuming and complex, and we may fail to ~~apply for~~ **do so with respect to** patents on important products, services and technologies in a timely fashion **, at a reasonable cost** or at all, or we may fail to ~~apply in the U. S. for~~ or patents in **other** potentially relevant jurisdictions. ~~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.~~ If we delay in filing a patent application, and a competitor files a patent application on the same or a similar technology before we do, we may face a limited ability to secure patent rights. ~~We may not be able to patent the technology at all.~~ Even if we can patent the technology, ~~the~~ we may be able to patent **only a** ~~may be~~ limited **in** scope of the technology, and **such limitation** ~~the limited scope~~ may be inadequate to protect our products, or to block competitor products that are similar or adjacent to ours. ~~Our earliest~~ **In addition, the USPTO and various non- U. S. governmental** patent filings have been published. A competitor may review our published patents **agencies require compliance with a number of procedural, documentary, fee payment** and arrive at the ~~other~~ same or similar **provisions during** technology advances for our products as we developed. If the competitor files a patent application **process. There are situations in which** on **non** such an advance before we do, then we may no longer be able to protect the technology, we may require a license from the competitor, and if the license is not available on commercially ~~viable terms,~~ **compliance can result in abandonment or lapse of then** ~~the~~ we may not be able to launch our product. 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 ~~or~~ protection. We may not have the right to control the preparation, filing and prosecution of patent applications ~~application~~ **resulting in partial** or to maintain the **complete loss of patent** rights **in the relevant jurisdiction** 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. 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. The **issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability. Some of our patents or patent applications may be challenged in positions- opposition of technology companies can be highly uncertain and, derivation, reexamination, inter partes review, post- grant review, interference, or in court proceedings. See “ Risk Factors — We may become** ~~involved in lawsuits to protect~~ complex legal and factual questions for ~~or enforce our intellectual property,~~ which important legal principles remain unresolved **could be expensive, time consuming and unsuccessful**. No consistent policy regarding the breadth of claims allowed.” **Any successful challenge to our patents could result in the unenforceability or invalidity of** such companies’ patents ~~has emerged to date,~~ **which could harm our business. In addition, in patent litigation in the United States , defendant counterclaims alleging invalidity or elsewhere unenforceability are commonplace . The outcome following legal assertions** Courts frequently render opinions that may affect the patentability 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 inventions ~~aspects of or our discoveries platform technologies~~. If the breadth or strength of protection provided by ~~the our~~ patents and patent applications ~~we hold with respect to our products~~ is threatened **, regardless of the outcome**, it could dissuade companies from collaborating with us

to develop, and threaten our ability to commercialize, our products. Depending on future actions by the U. S. Congress, the U. S. courts, the United States Patent and Trademark Office, or USPTO, and the relevant law-making bodies in other countries, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. 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) may be challenged 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 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. Enforcing our intellectual property rights against third parties may also cause such third parties to file other counterclaims against us, which could be costly to defend, particularly in a foreign jurisdiction, and could require us to pay substantial damages, cease the sale of certain products or enter into a license agreement and pay royalties (which may not be possible on commercially reasonable terms or at all). 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, **subject to applicable** 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** ~~Once the patent life has~~ expired, we may be open to competition from competitive products. If one of our products requires extended development or testing, patents protecting such products might expire before or shortly after such products are commercialized. For example, while our patents and, if issued, our patent applications have terms that will expire through **2042 2043**, certain of our **earliest** unexpired U. S. patents covering the Growth Direct system and its use are scheduled to expire in ~~2023 and~~ 2024. Although we own other patents with later expiration dates that cover various improvements and consumables for the Growth Direct platform, these other patents may not provide the same protection as the earliest-filed patents. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing **similar or identical** products ~~similar or identical~~ to ours, which would have a material adverse effect on our business. The United States government may exercise certain rights with regard to certain of our inventions developed using government funding. The United States federal government retains certain rights in inventions produced with its financial assistance under the Patent and Trademark Law Amendments Act, or the Bayh-Dole Act. Certain of our inventions for which we have pursued, and in some cases obtained, patent protection were developed using federal funding from BARDA. As a result, the U. S. government may have certain rights, including so-called march-in rights, to any patent rights that were funded in part by the U. S. government 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. 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 and we expect our reliance to increase in the near term as the terms for certain of our **earliest** patents expire. ~~For example, while our patents and, if issued, our patent applications have terms that will expire through 2042, some of our unexpired U. S. patents covering the Growth Direct system and its use are expected to expire in 2023 and 2024. Once these patents expire, we may have to rely more heavily on trade secrets to maintain our competitive advantage.~~ Any disclosure, either intentional or unintentional, by our employees, consultants ~~and or~~ vendors ~~that we engage to perform research or manufacturing activities~~, or misappropriation by third parties (such as through a cybersecurity breach) of our trade secrets or proprietary information could enable competitors to duplicate or surpass our technological achievements, thus eroding our competitive position in our market. ~~From~~ **Because we expect to rely on third parties in the development and manufacture of our products, we may, at times** ~~time to time~~ **we may** share trade secrets with ~~them~~ **customers, collaborators, suppliers, vendors and other third parties**, which increases the possibility that a competitor will discover them or that our trade secrets will be misappropriated or disclosed. Trade secrets and know-how can be difficult ~~and expensive~~ to protect. ~~We~~ **In addition to pursuing patents on our technology, we take steps to protect our intellectual property and proprietary technology by** ~~maintaining physical and electronic security measures and~~ **by** entering into agreements, including confidentiality agreements, non-disclosure agreements and intellectual property assignment agreements, with our employees, consultants, advisors, collaborators and customers. 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, **if** any of these parties ~~may~~ breach the agreements and disclose our proprietary

information, including our trade secrets, and we **may expend significant time and resources to assert our rights against such parties and we ultimately** 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 materially adversely impact our business and financial position. **If we are required to assert our rights against such a 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, and the outcome would be unpredictable. In addition, if we choose to go to court to stop a third party from using any of our trade secrets, it may result in a public disclosure of our trade secrets and corresponding loss of rights, which could have a material adverse effect on our business. In addition, courts outside the United States may be less willing to protect trade secrets. We may need to share our proprietary information, including trade secrets, with future business partners, collaborators, contractors and others located in countries at heightened risk of theft of trade secrets, including through direct intrusion by private parties or foreign actors, and those affiliated with or controlled by state actors. We also seek to preserve the integrity and confidentiality of our confidential proprietary information by maintaining physical security of our premises and physical and electronic security of our information technology systems, but it is possible that these security measures could be breached. 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 rely on in- licensees from third parties **and may in the future in- license additional intellectual property related to our product offerings**. If we lose these rights, our business may be materially adversely affected, our ability to develop improvements to our Growth Direct platform and to develop new technologies 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 non- exclusive, royalty- bearing license agreement with Thermo CRS, Ltd., or Thermo Fisher, that grants us rights to exploit certain patent rights that are related to our Growth Direct platform, **which expires in April 2024**. **We In the future, we** may need to obtain additional licenses from others to advance our research, development and commercialization activities. These and other intellectual property license agreements that we enter into with third parties may impose various development, regulatory and / or commercial diligence obligations, payment of milestones and / or royalties and other obligations on us. Our rights to use the technology we license are subject to the continuation of and compliance with the terms of these agreements. **If Licenses can be terminated and their terms may be materially modified in ways that are significantly adverse to our business interest for any number of reasons. For example, we may** fail to comply with our obligations under these agreements (including as a result of coronavirus, and its variants, impacting our operations); we **may** use the licensed intellectual property in an unauthorized manner or we **are may become** subject to bankruptcy- related proceedings, the terms of the licenses may be materially modified, such as by rendering currently exclusive licenses non- exclusive, or it may give our licensors the right to terminate their respective agreement with us, which could limit our ability to implement our current business plan and materially adversely affect our business, financial condition, results of operations and prospects. **Similarly** 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 against third parties. Our licensors may not successfully prosecute the patent applications to which we are licensed. Even if patents are issued in respect of these patent applications, our licensors may fail to maintain these patents, may determine not to pursue litigation against other companies that are infringing these patents, or may pursue such litigation less aggressively than we would. Without protection for the intellectual property we license, other companies might be able to offer substantially identical products for sale, which could adversely affect our competitive business position and harm our business prospects. Further, we may have limited control over these activities or any other intellectual property that may be in- licensed. For example, we cannot be certain that such activities by licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. We may have limited control over the manner in which our licensors initiate an infringement proceeding against a third- party infringer of the intellectual property rights, or defend certain of the intellectual property that is licensed to us. It is possible that the licensors' infringement proceeding or defense activities may be less vigorous than had we conducted them ourselves. In the event our licensors fail to adequately pursue and maintain patent protection for patents and applications they control, and to timely eede control of such prosecution to us, our competitors might be able to enter the market, which would have a material adverse effect on our business. In spite of our efforts to comply with our obligations under our in- license agreements, disputes may arise with respect to our licensing agreements and / or our licensors might conclude that we have materially breached our obligations under our license agreements and might therefore, 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 agreement is terminated, or if the- licensed patents **intellectual property** 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 the licensor, or we may be required to cease our development and commercialization activities that are deemed infringing, and in such event we may ultimately need to modify our activities or products to design around such infringement, which will consume time and resources and 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 Thermo Fisher is terminated, we may suffer the foregoing consequences with respect to our business.~~ We may not be able to protect our intellectual property rights throughout the world. **We intend to continue to expand** ~~Filing, prosecuting and defending patents on our products~~ **commercial operations** ~~in territories 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,~~ **including in Europe and those** ~~the in the United States~~ **Asia-Pacific region**. ~~The~~ ~~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. 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. 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. Our trademarks or trade names may be challenged, infringed, diluted, circumvented, declared generic or determined to be infringing on other marks. We may not be able to protect our rights in these trademarks or trade names or may be forced to stop using these names, which we need for name recognition by potential partners or customers in our markets of interest. We have not yet registered certain of our trademarks in all of our potential markets. During the trademark registration process, we may receive Office Actions from the USPTO objecting to the registration of our trademarks. Although we would be given an opportunity to respond to those objections,~~ ~~that we may be unable to overcome such objections.~~ In addition, ~~at the USPTO and at comparable agencies in many foreign jurisdictions,~~ ~~third parties are may be given an opportunity to oppose pending trademark applications and / or to seek the cancellation of registered trademarks.~~ ~~Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings.~~ If we are unable to obtain a registered trademark or establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected. We may be subject to claims challenging the inventorship and ownership 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 **by contract co-inventor**. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in **our developing development activities** ~~our product candidates~~ or as a result of questions regarding co-ownership of potential joint inventions. 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. Alternatively, or additionally, we may enter into agreements to clarify the scope of our rights in such 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, **important** intellectual property ~~that is important to our products~~. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees, 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.~~ 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 be involved in litigation claiming that we have infringed on a third party's intellectual property, which could be time consuming and costly and may adversely affect our business, financial condition, results of operations and prospects. We may be involved with litigation or actions at the USPTO or foreign patent offices with various third parties that claim we or our collaborators or customers using our solutions and services have infringed, misappropriated or misused other parties' intellectual property rights. We expect that the number of such claims may increase as the number of our products grows, we expand our market share and the level of competition in our markets increases. Moreover, as the automated MQC testing industry expands and more patents are issued, the risk increases that our products may be subject to claims of infringement of ~~the third party~~ **patent rights** and other proprietary rights ~~of third parties~~. 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 have significantly larger and more mature patent portfolios than we currently 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.~~ 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, attorneys' 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. Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. Further, even if we were successful in defending against a lawsuit, such a defense would distract our management team from our operations, which could have an adverse effect on our business. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, results of operations, financial condition and prospects. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation or other legal proceedings relating to our intellectual property rights, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation or other proceedings. In addition, our agreements with some of our customers, suppliers or other entities with whom we do business **may** 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 : ~~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 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. 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. Even if resolved in our favor, any award of monetary damages or other remedy we receive may not be commercially valuable. 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 ~~the~~ 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 are 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. 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. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace : ~~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 rely on our outside counsel using an outside service 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. In many cases, an inadvertent lapse, including due to the effect of the coronavirus pandemic on us or our vendors, can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. 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.~~ 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 licensed to us by

third-party authors under “open source” licenses in connection with our products and services. Use and distribution of open-source software may entail greater risks than use of third-party commercial software, as open-source licensors generally do not provide support, warranties, indemnification or other contractual protections regarding infringement claims or the quality of the code. Further, 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. ~~Despite our efforts to monitor our use of open-source software to avoid subjecting our platform to conditions we do not intend, there is a risk that open source licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to provide or distribute our platform.~~ Additionally, we may from time to time face claims from third parties claiming ownership of, or seeking to enforce the terms of, an open source license, including by demanding release of source code for the open-source software, derivative works or our proprietary source code that was developed using, or that is distributed with, such open-source software. These claims could also result in litigation and could require us to make our proprietary software source code freely available, require us to devote additional research and development resources to change re-engineer our platform, seek costly licenses from third parties or otherwise incur additional costs and expenses, any of which could result in reputational harm and would have a negative effect on our business and operating results. ~~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. In addition, if the license terms for the open-source software we utilize change, we may be forced to re-engineer our platform, incur additional costs to comply with the changed license terms or replace the affected open-source software. Although we have implemented policies to regulate the use and incorporation of open-source software into our platform and solutions, we cannot be certain that that such policies will be effective and that we have not incorporated open-source software in our platform and solutions in a manner that is inconsistent with such policies.~~

Risks Related to Our Common Stock The market price of our Class A common stock has been and may continue to be volatile and fluctuate substantially, which could result in substantial losses for our stockholders. The market price of our Class A common stock has been and may continue to be volatile. The stock market in general and the market for smaller technology companies in particular has experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, our stockholders may not be able to sell their Class A common stock at or above the price they paid for them. The market price for our Class A common stock may be influenced by many factors, including:

- actual or anticipated fluctuations in our financial condition and operating results, including fluctuations in our quarterly and annual results;
- variances in product and system reliability;
- 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 and market new and enhanced products and expand into new markets 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 earnings estimates or recommendations by securities analysts;
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors; and
- the other factors described in this “Risk Factors” section and elsewhere in this Annual Report on Form 10-K.

If our Class A common stock is delisted from the Nasdaq **Stock Global Select** Market, the liquidity of our Class A common stock would be adversely affected and the market price of our common stock could decrease. Our Class A common stock is currently listed on the Nasdaq Global Select Market and closed at \$ 1. ~~40-00~~ on ~~March 7~~ **February 28, 2023-2024**. The Nasdaq Stock Market LLC, or Nasdaq, has minimum requirements that a company must meet in order to remain listed on Nasdaq markets, including that we maintain a minimum closing bid price of \$ 1.00 per share for our Class A common stock. **If we have previously received notifications from Nasdaq that we fail to maintain such were not in compliance with its minimum bid price requirements. Most recently, then on February 2, 2024, we received a letter from Nasdaq notifying us will issue a notice that the closing bid price we are not in compliance and we will need to take corrective actions in order to not be delisted. Such corrective actions could include a reverse stock split or a buyback of shares of our Class A common stock was below \$ 1.00 per share for the preceding 30 consecutive trading days. The notification has no immediate effect on the listing of the our common stock on Nasdaq. We have a period of 180 calendar days to regain compliance with the bid price requirement, which will expire on July 31, 2024. To regain compliance, the closing bid price of our common stock must be at least \$ 1.00 or higher for a minimum of ten consecutive business days, though Nasdaq has the discretion to extend the ten business day period to up to 20 consecutive business days. If we do not regain compliance by July 31, 2024, we may adversely affect be eligible for an additional 180 calendar compliance period. To qualify, we would need to transfer the listing of our common stock to the Nasdaq Capital Market, provided that we meet the continued listing requirement for market value of publicly held shares and all the other liquidity initial listing standards, with the exception of the bid price requirement. If we are not eligible or it appears to Nasdaq that we will not be able to cure the deficiency during the additional compliance period, Nasdaq will provide written notice that our common stock will be subject to delisting. In the event of such notification, we may appeal Nasdaq’s delisting determination. However, there can be no assurance that, if we receive a delisting notice and appeal the delisting determination by Nasdaq, such appeal**

would be successful. We intend to monitor the closing bid price of our common stock and take such reasonable measures to regain compliance with the bid price requirement, which may include the implementation of a reverse stock split. There can be no assurance that we will be able to regain compliance with the bid price requirement for continued listing on Nasdaq. Even if we regain compliance with the bid price requirement, there can be no assurance that we will continue to comply with the other continued listing standards of Nasdaq. If we fail to comply with one or more other Nasdaq listing rules, our Class A common stock may also become subject to our cash balance, respectively. There is no way to guarantee that either measure, if implemented, would help us regain compliance with the minimum bid price requirement or maintain compliance with other Nasdaq listing delisting as rules. If Nasdaq were to make a final determination that result of such deficiencies. A delisting of our Class A common stock must be delisted, from Nasdaq could materially reduce the liquidity of our Class A common stock would be adversely affected and result in a corresponding material reduction in the market price of our Class A common stock. In addition, delisting could harm our ability decrease. Our failure to be raise capital on terms acceptable to us, or at all, and may result in the potential loss of confidence by investors and employees and fewer business development opportunities. Further, any potential delisting of our Class A common stock from Nasdaq would also make it more difficult for our stockholders to sell their shares in the public market. Sales of a substantial number of shares of our Class A common stock in the public market, or the perception in the market that the holders of a large number of shares intend to sell shares, could depress the market price of our Class A common stock. Except for shares of our Class A common stock that are held by our directors, officers and affiliates, which are subject to certain restrictions on resale under the Securities Act of 1933, as amended, or the Securities Act, and the rules and regulations promulgated thereunder, all other shares of our Class A common stock listed on Nasdaq are generally freely tradable. These include shares held by stockholders, including those that hold large positions in or our another national securities exchange would, that are not our affiliates as such term is defined under Rule 144 of the Securities Act. Sales of a substantial number of shares of our common stock by such stockholders, particularly at a time when daily trading volumes in our stock are low, has had and may continue to have the a material adverse effect on the value of depressing the trading price of your our investment common stock. Such downward pressure in us the trading price of our common stock may also be exerted by investors' expectations or perceptions that such sales could occur. An active trading market for our Class A common stock may not be sustainable. It is possible that an active or liquid market for our Class A common stock may not be sustainable. In the absence of an active trading market for our Class A common stock, it may be difficult for stockholders to sell our shares without depressing the market price for the shares, or at all. Further, an inactive market may also impair our ability to raise capital by selling shares of our Class A common stock and may impair our ability to enter into strategic collaborations or acquire companies or products by using our shares of Class A common stock as consideration. Our executive officers, directors and principal stockholders, if they choose to act together, will have the ability to control all matters submitted to stockholders for approval. Following our IPO, based Based on the number of shares of Class A common stock outstanding as of December 31, 2022 2023, our executive officers, directors and stockholders who owned more than 5 % of our outstanding common stock before the IPO and their respective affiliates hold, in the aggregate, a majority of our outstanding voting stock. The holders of shares of our Class B common stock have the ability to convert any portion of their Class B common stock into Class A common stock. Our Class B common stock cannot be converted if, immediately following such conversion, the holder would beneficially own more than 4.9 % of the issued and outstanding Class A common stock. Due to this conversion right, holders of our Class B common stock could, at any time, increase their voting control of us. As a result of their combined voting power, if our executive officers, directors and stockholders who own more than 5 % of our outstanding common stock choose to act together, they would be able to control all matters submitted to our stockholders for approval that require a majority vote, as well as our management and affairs. For example, these persons, if they choose to act together, would control the election of directors, the composition of our management and approval of any merger, consolidation or sale of all or substantially all of our assets. The dual class structure of our common stock and the option of the holders of shares of our Class B common stock to convert into shares of our Class A common stock may limit our Class A stockholders' ability to influence corporate matters. Our Class A common stock has one vote per share, while our Class B common stock is non-voting. Nonetheless, each share of our Class B common stock may be converted at any time into one share of issued and outstanding Class A common stock at the option of its holder, subject to the limitations provided for in our restated certificate of incorporation that prohibit the conversion of our Class B common stock into shares of Class A common stock to the extent that, upon such conversion, such holder would beneficially own in excess of 4.9 % of our Class A common stock. Consequently, if holders of Class B common stock exercise their option to make this conversion, such exercise will have the effect of increasing the relative voting power of those prior holders of our Class B common stock (subject to the ownership limitation described in the previous sentence) and increasing the number of outstanding shares of our voting common stock, and correspondingly decreasing the relative voting power of the current holders of our Class A common stock, which may limit our current Class A stockholders' ability to influence corporate matters. We are an "emerging growth company," and a "smaller reporting company," and the reduced disclosure requirements applicable to us emerging growth companies may make our Class A common stock less attractive to investors. We are an "emerging growth company," as defined in the JOBS Act, and may remain an emerging growth company until the last day of the fiscal year following the fifth anniversary of the closing of the IPO. However, if certain events occur prior to the end of such five-year period, including if we become a "large accelerated filer," our annual gross revenues exceed \$ 1.07 billion or we issue more than \$ 1.0 billion of non-convertible debt in the previous three-year period, we will cease to be an emerging growth company prior to the end of such five-year period. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies. These exemptions include:

- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial

reporting; • reduced disclosure obligations regarding executive compensation; • exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved and from providing the pay ratio between our Chief Executive Officer and employees; and • an exemption from compliance with the requirements of the Public Company Accounting Oversight Board regarding the communication of critical audit matters in the auditor's report on the financial statements. We **are also a "smaller reporting company" and are therefore entitled to rely on certain reduced disclosure requirements for as long as we remain a smaller reporting company, such as presenting two years of audited financial statements in our annual Form 10-K or reduced disclosure requirements for executive compensation. This reduced disclosure in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects.** We cannot predict whether investors will find our Class A common stock less attractive if we rely on these exemptions. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock and our stock price may be reduced or more volatile. In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of these accounting standards until they would otherwise apply to private companies. We intend to utilize the extended transition period and, as a result, we will not be required to comply with new or revised accounting standards on the same **timeline** ~~time line~~ as other public companies. ~~We are a "smaller reporting company" and the reduced disclosure requirements applicable to smaller reporting companies may make our Class A common stock less attractive to investors. We are a "smaller reporting company" and are therefore entitled to rely on certain reduced disclosure requirements for as long as we remain a smaller reporting company, such as presenting two years of audited financial statements in our annual Form 10-K or reduced disclosure requirements for executive compensation. This reduced disclosure in our SEC filings due to our status as a smaller reporting company may make it harder for investors to analyze our results of operations and financial prospects. We cannot predict if investors will find our Class A common stock less attractive because we may rely on these exemptions. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock and our stock prices may be more volatile.~~ If we fail to maintain effective internal control over financial reporting and effective disclosure controls and procedures, we may not be able to accurately report our financial results in a timely manner or prevent fraud, which may adversely affect investor confidence in our company. As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal controls. Section 404 of the Sarbanes- Oxley Act of 2002 requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on our internal controls on an annual basis. However, while we remain an emerging growth company, we are not required to include an attestation report on internal control over financial reporting issued by our independent registered accounting firm. If we have material weaknesses in our internal control over financial reporting, we may not detect errors on a timely basis and our consolidated financial statements may be materially misstated. We will need to maintain and enhance the systems, processes and documentation necessary to comply with Section 404 of the Sarbanes- Oxley Act as we grow, and we will require additional management and staff resources to do so. Additionally, even if we conclude our internal controls are effective for a given period, we may in the future identify one or more material weaknesses in our internal controls, in which case our management will be unable to conclude that our internal control over financial reporting is effective. Our independent registered public accounting firm will be required to issue an attestation report on the effectiveness of our internal control over financial reporting following the date we are no longer an emerging growth company. Even if our management concludes that our internal control over financial reporting is effective, our independent registered public accounting firm may in the future conclude that there are material weaknesses with respect to our internal controls or the level at which our internal controls are documented, designed, implemented or reviewed. If we are unable to conclude that our internal control over financial reporting is effective or if our auditors were to express an adverse opinion on the effectiveness of our internal control over financial reporting because we had one or more material weaknesses, investors could lose confidence in the accuracy and completeness of our financial disclosures, which could cause the price of our common stock to decline. Irrespective of compliance with Section 404, any failure of our internal control over financial reporting could have a material adverse effect on our reported operating results and harm our reputation. Internal control deficiencies could also result in a restatement of our financial results. Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud. We are subject to the periodic reporting requirements of the Exchange Act. We are continuing to refine our disclosure controls and procedures to provide reasonable assurance that information we must disclose in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision- making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected, which could have a material adverse effect on investors' confidence in our reporting and the price of our Class A common stock. Provisions in our restated certificate of incorporation and amended and restated bylaws and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management. Provisions in our restated certificate of incorporation and our amended and restated bylaws may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which our 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 Class A common stock, thereby depressing the market price of our Class A common stock. In addition, because our board of directors is responsible for appointing the members of our management team, 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. Among other things, these provisions include those establishing: • a classified board of directors with three- year staggered terms, which may delay the ability of stockholders to change the membership of a majority of our board of directors; • no cumulative voting in the election of directors, which limits the ability of minority stockholders to elect director candidates; • the exclusive right of our board of directors to elect a director 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 filling vacancies on our board of directors; • the ability of our board of directors to authorize the issuance of 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 acquirer; • the ability of our board of directors to alter our bylaws without obtaining stockholder approval; • the required approval of the holders of at least two- thirds of the shares entitled to vote at an election of directors to adopt, amend or repeal our bylaws or repeal the provisions of our restated certificate of incorporation regarding the election and removal of directors; • the required approval of the holders of at least two- thirds of the shares entitled to vote thereon to (i) effect a reorganization, recapitalization, share exchange, share classification, consolidation, conversion or merger, (ii) sell, lease, exchange, transfer or otherwise dispose of all or substantially all of our assets, or (iii) dissolve our company or revoke a dissolution of our company; • a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders; • the requirement that a special meeting of stockholders may be called only by the chairman of the board of directors, the chief executive officer, the president or 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; and • advance notice procedures that stockholders must comply with in order to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer' s own slate of directors or otherwise attempting to obtain control of us. ~~In addition, on August 11, 2022, we adopted a stockholder rights agreement, or the Rights Agreement, that could discourage potential acquisition proposals and could delay or prevent a change in control of the Company or a change in our management or board of directors, even in situations that may be considered beneficial by some of our shareholders. For additional information regarding risks associated with the Rights Agreement, see below risk entitled "Our Rights Agreement could make it more difficult for a third party to acquire control of incorporation designates specific courts as the exclusive forum for certain litigation Company, which could have a negative effect on the price of our common stock."~~ Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware, 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. We have been, and may continue to be, subject to the actions of activist ~~shareholders~~ **stockholders or unsolicited acquisition proposals**, which could cause us to incur substantial costs, divert management' s and the board' s attention and resources, and have an adverse effect on our business and stock price. From time to time, we may be subject to proposals by ~~shareholders~~ **stockholders** urging us to take certain corporate actions, **such as changing the composition of our board of directors, our management team, selling our company or similar strategic initiatives. If activist stockholder initiatives ensue, our business could be adversely affected, as responding to such actions can be costly and time- consuming, disrupt our operations and divert the attention of management and our board of directors.** For example, in ~~connection with the~~ **June 2022, we received an unsolicited, non- binding proposal from a shareholder- stockholder** to acquire all of our outstanding common stock for \$ 5. 00 per share in ~~June~~ **cash**. We rejected the shareholder' s offer in August 2022 and commenced a process to review our strategic alternatives, which concluded in December 2022. If activist shareholder initiatives ensue, our business could be adversely affected, as responding to such actions can be costly and time- consuming, disrupt our operations and divert the attention of management and our board of directors. For example, we retained the services of various advisors, including legal, financial, and communications professionals, to advise us in considering the ~~shareholder- stockholder~~ ' s proposal and during our review of strategic alternatives, the costs of which negatively impacted our financial results, and we may be required to retain such services in the future, which could have a further negative impact on our financial results. In addition, perceived uncertainties as to our future direction, strategy or leadership created as a consequence of ~~new~~ **activist shareholder- stockholder** initiatives may result in the loss of potential business opportunities, harm our ability to attract new investors, customers, and employees, and cause our stock price to experience periods of volatility or stagnation. Our restated certificate of incorporation designates specific courts as the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us. Our 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 claims brought against us by stockholders; provided that, the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Securities Act, the Exchange Act, the rules and regulations thereunder or any other claim for which the federal courts have exclusive jurisdiction; and provided further 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 restated certificate of incorporation further provides that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act. Any person or entity purchasing or otherwise acquiring any interest

in shares of our capital stock shall be deemed to have notice of and to have consented to the provisions of our restated certificate of incorporation described above; provided, however, that stockholders cannot and will not be deemed to have waived our compliance with the U. S. federal securities laws and the rules and regulations thereunder. These provisions may have the effect of discouraging lawsuits against our directors, officers, employees and agents as it may limit any stockholder's ability to bring a claim in a judicial forum that such stockholder finds favorable for disputes with us or our directors, officers, employees or agents and result in additional litigation costs in pursuing any such claims. In addition, while the Delaware Supreme Court ruled in March 2020 that federal forum selection provisions purporting to require claims under the Securities Act be brought in federal court are "facially valid" under Delaware law, there is uncertainty as to whether other courts will enforce our Federal Forum Provision. If a court were to find the choice of forum provision contained in our restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business, financial condition or results of operations. The choice of forum provision contained in our restated certificate of incorporation may also impose additional litigation costs on stockholders who assert that the provision is not enforceable or invalid. The Court of Chancery of the State of Delaware and the federal district courts of the United States may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our stockholders. ~~On August 11, 2022, we adopted the Rights Agreement that could discourage potential acquisition proposals and could delay or prevent a change in control of the Company or a change in our management or board of directors, even in situations that may be considered beneficial by some of our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us. The Rights Agreement may substantially dilute the stock ownership of a person or group that attempts to acquire a large interest. These deterrents could also adversely affect the price of our Class A common stock. The Rights Agreement will automatically expire on the day after our 2023 Annual Meeting of Stockholders, unless approved by our stockholders at the 2023 Annual Meeting of Stockholders, in which case it will expire in one year, on August 11, 2023. Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, capital appreciation, if any, would be stockholders' sole source of gain. We have never declared or paid any cash dividends on our common stock. We currently anticipate that we will retain all available funds and future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. As a result, capital appreciation, if any, of our common stock will be the sole source of gain on an investment in our common stock for the foreseeable future.~~ Our ability to use our net operating losses and research and development tax credits to offset future taxable income or income tax liabilities ~~are~~ **may be** subject to certain limitations. As of December 31, ~~2022~~ **2023**, we had U. S. federal and state net operating loss, or NOL, carryforwards of \$ ~~189~~ **229** million and \$ ~~87~~ **100** million, respectively, ~~which~~ **These NOLs** may be available to offset future taxable income, if any, that begin to expire in 2038 and 2032, respectively. Additionally, we had federal NOLs of \$ ~~176~~ **216** million generated since 2018 ~~that will, which do~~ not expire. The Tax Cuts and Jobs Act (TCJA) enacted on December 22, 2017 limits a taxpayer's ability to utilize NOL deduction in a year to 80 % taxable income for federal NOL arising in tax years beginning after 2017. In addition, we had federal and state research and development tax credits of \$ ~~1~~ **2** million and \$ ~~3~~ **2** million, respectively, ~~which~~ **These tax credits** may be available to offset future tax liabilities and begin to expire in 2038 and 2024, respectively. In general, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the Code, a corporation that undergoes an "ownership change," generally defined as a greater than 50 percentage point change by value in its equity ownership by one or more stockholders or groups of stockholders owning at least 5 % of the corporation's stock over a rolling three-year period, is subject to limitations on its ability to utilize its pre-ownership change NOLs and tax credits to offset future taxable income or income tax liabilities for U. S. federal income tax purposes. Similar rules may apply under state tax laws. The Company has completed a Section 382 study through July 31, 2020 to assess the limitations on use of NOLs and research and development credits due to changes in control. The study determined that ownership changes materially limited the NOL carryforwards and research and development tax credits available to offset future tax liabilities and the limitations have been reflected in the amounts of NOL carryforwards, research and development tax credits, and deferred tax assets disclosed above. The Company has not completed a Section 382 study for post July 31, 2020 transactions which could create an additional limitation although materially all of the current federal NOL carryforwards can be carried forward indefinitely. We have in the past experienced, and we may in the future experience ownership changes, some of which are outside our control. For these reasons, we are not able to utilize a material portion of the NOLs and tax credits even if we attain profitability. For additional information on our use of NOLs, see the section entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations — Components of results of operations — Income tax (benefit) expense" and Note ~~14~~ **11** — Income taxes to our consolidated financial statements included elsewhere in this Annual Report on Form 10-K. General risk factors ~~Changes in tax laws may impact~~ **Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future** financial position and results of operations. ~~New income, sales capital appreciation, if use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, would be stockholders' sole source of gain. We have never declared or paid~~ **interpreted, changed, modified or applied adversely to us, any cash dividends on our common stock. We currently anticipate that we will retain all available funds and future earnings for the development, operation and expansion of** ~~which could adversely affect our business operations and financial performance.~~ **do not anticipate declaring** ~~For~~ **or paying any cash dividends** ~~example, under Section 174 of the Code, in taxable years beginning after December 31, 2021, expenses that are incurred for research and development in the U~~ **foreseeable future** ~~S.~~ **As a result, capital appreciation, if any, of our common stock will be the sole source of gain on** ~~capitalized and amortized, which may have an~~ **investment in** ~~adverse effect on our cash flow. In recent years, many such changes have been made, and changes are likely to continue to occur~~ **our** ~~in common stock for the~~ **foreseeable** future. We are currently unable to predict whether such changes will occur and, if so, the

ultimate impact on our business. To the extent that such changes have a negative impact on us, our suppliers or our customers, including as a result of related uncertainty, these changes may materially and adversely impact our business, financial condition, results of operations and cash flows. If securities or industry analysts do not publish research or reports about our business, or if they issue an adverse or misleading opinion regarding our stock, our stock price and trading volume could decline, even if our business is doing well. The trading market for our Class A common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. ~~We do not currently have, and may never obtain, research coverage by securities and industry analysts. If no or few securities or industry analysts commence coverage of us, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if the analysts who cover us issue an adverse or misleading opinion regarding us, our business model, or our stock performance, or if our product development or marketing and sales results fail to meet the expectations of analysts, our stock price would could likely decline. If one or more of these analysts ceases coverage of us or fails to publish reports on us regularly, we could lose visibility in the financial markets, 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 Class A common stock. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America 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 Class A common stock. We could be subject to securities class action litigation. In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because early-stage technology companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, and negative publicity, all of which could harm our business.~~

Conditions in the banking system and financial markets, including the failure of banks and financial institutions, could have an adverse effect on our operations and financial results. Actual events involving limited liquidity, defaults, non-performance or other adverse developments that affect financial institutions, transactional counterparties or other companies in the financial services industry or the financial services industry generally, or concerns or rumors about any events of these kinds or other similar risks, have in the past and may in the future lead to market-wide liquidity problems. For example, on March 10 and March 12, 2023, the Federal Deposit Insurance Corporation took control and was appointed receiver of Silicon Valley Bank, Signature Bank and Silvergate Capital Corp, respectively, after each bank was unable to continue their operations. Since then, additional financial institutions have experienced similar failures and have been placed into receivership. It is possible that other banks will face similar difficulty in the future. Although we do not maintain any deposit accounts, credit agreements or letters of credit with any financial institution currently in receivership, we are unable to predict the extent or nature of the impacts of these evolving circumstances at this time. If, for example, other banks and financial institutions enter receivership or become insolvent in the future in response to financial conditions affecting the banking system and financial markets, our ability to access our existing cash, cash equivalents and investments may be threatened. While it is not possible at this time to predict the extent of the impact that the failure of these financial institutions or the high market volatility and instability of the banking sector could have on economic activity and our business in particular, the failure of other banks and financial institutions and the measures taken by governments, businesses and other organizations in response to these events could adversely impact our business, financial condition and results of operations.