Filed Pursuant to Rule 424(b)4
Registration Statement No. 333-257810

13,500,000 Shares

COMMON STOCK

This is the U.S. initial public offering of shares of common stock of MaxCyte, Inc. We are offering 13,500,000 shares of our common stock at a public offering price of $13.00 per share.

Prior to this offering, there has been no public market for our common stock in the United States. Our common stock has been approved for listing on the Nasdaq Global Select Market under the symbol "MXCT." Our common stock trades on AIM, a market operated by the London Stock Exchange, under the symbols "MXCT" and "MXCN." We will apply to list the shares of common stock being offered by this prospectus on the AIM market. The last reported sale price of our common stock on the AIM market on July 29, 2021 was £9.40 per share, or approximately $13.12 per share based on the last reported exchange rate for British pounds sterling of £1.00 = $1.3959 on July 29, 2021.

We are an "emerging growth company" as defined under the federal securities laws and, as such, we have elected to comply with certain reduced reporting requirements for this prospectus and may elect to do so in future filings.

Investing in our common stock involves risks. See "Risk Factors" beginning on page 12 to read about factors you should consider before buying our common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	$13.00	$175,500,000
Underwriting discounts and commissions(1)	$ 0.91	$ 12,285,000
Proceeds, before expenses, to MaxCyte, Inc.	$12.09	$163,215,000

(1) See the section titled "Underwriting" for additional information regarding compensation payable to the underwriters.

We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase up to an additional 2,025,000 shares of common stock at the public offering price, less the underwriting discounts and commissions.

The underwriters expect to deliver the shares of common stock to purchasers on or about August 3, 2021.

Joint Book-Running Managers

Cowen **Stifel** **William Blair**

Co-Managers

BTIG **Stephens Inc.**

Prospectus dated July 29, 2021.

TABLE OF CONTENTS

None of us or any of the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectuses we have prepared. None of us nor any of the underwriters take responsibility for, or can provide any assurance as to the reliability of, any other information that others may give you. We and the underwriters are offering to sell, and seeking offers to buy, shares of our common stock only under circumstances and in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock.

For investors outside the United States: None of us or any of the underwriters have done anything that would permit this offering or the possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside of the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, this offering and the possession and distribution of this prospectus outside of the United States.

Any discrepancies included in this prospectus between totals and the sums of the percentages and dollar amounts presented are due to rounding.

PROSPECTUS SUMMARY

This summary highlights selected information included elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, including the sections titled "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Business," and our financial statements and the related notes included elsewhere in this prospectus, before making an investment decision. Unless the context otherwise requires, all references in this prospectus to "MaxCyte," the "company," "we," "our," "us" or similar terms refer to MaxCyte, Inc. and its consolidated subsidiary.

Our Mission

We believe in the vast potential of next-generation cell therapies to have a meaningful impact on the millions of patients worldwide who, despite medical advancement, live with unmet medical needs across a variety of diseases. Our aim is to be the premier cell engineering platform technology to support the development of advanced therapeutics.

Overview

We are a leading commercial cell engineering company focused on providing enabling platform technologies to advance innovative cell-based research as well as next-generation cell therapeutic discovery, development and commercialization. Over the past twenty years, we have developed and commercialized our proprietary Flow Electroporation platform, which facilitates complex engineering of a wide variety of cells. Electroporation is a method of transfection, or the process of deliberately introducing molecules into cells, that involves applying an electric field in order to temporarily increase the permeability of the cell membrane. This precisely controlled increase in permeability allows the intracellular delivery of molecules, such as genetic material and proteins, that would not normally be able to cross the cell membrane as easily.

With increased knowledge of cell complexity and systems biology in the scientific community, researchers have sought to leverage or repurpose cell functions and/or machinery for research or therapeutic purposes. The ability to engineer living cells by introducing foreign molecules, such as gene editing systems and transgenes, has led to a revolution in biological research and resulted in numerous biological discoveries. Living human cells can also be engineered *ex vivo*, or outside the body, where they are repaired or reprogrammed to fight disease. In this case, the engineered cell itself is the drug.

Cell therapy has emerged as one of the fastest growing and most promising treatment modalities to address a host of human diseases. Over the past few years, the success of multiple U.S. Food and Drug Administration, or FDA, approved cell therapies providing long-lasting amelioration of symptoms or presence of disease has catalyzed tremendous investment — leading to exponential growth in cell-based therapies being evaluated for therapeutic applications. According to the Alliance for Regenerative Medicine, the combination of gene, cell, and tissue-based therapeutic developers raised an aggregate of $19.9 billion in 2020, up from $13.3 billion in 2018. According to the American Society of Gene and Cell Therapy, or ASGCT, there are now more than 3,400 gene, cell and RNA therapies in development globally, with gene therapy including genetically-modified chimeric antigen receptor T cells, or CAR-Ts, accounting for 53% of those candidates.

Our ExPERT platform, which is based on our Flow Electroporation technology, has been designed to address this rapidly expanding cell therapy market and can be utilized across the continuum of the high-growth cell therapy sector, from discovery and development through commercialization of next-generation, cell-based medicines. The ExPERT family of products includes: three instruments, the ATx, STx and GTx; portfolio of proprietary related processing assemblies, or disposables; and software protocols. We have garnered meaningful expertise in cell engineering via our internal research and development efforts as well as our customer-focused commercial approach, which includes a growing application scientist team. The platform is also supported by a robust intellectual property portfolio with 50 granted U.S. and foreign patents and 76 pending patent applications worldwide.

From leading commercial cell therapy drug developers and top biopharmaceutical companies to top academic and government research institutions, including the U.S. National Institutes of Health, or

NIH, our customers have extensively validated our technology. We believe the features and performance of our platform have led to sustained customer engagement. Our existing customer base ranges from large biopharmaceutical companies, including all of the top 10, and 20 of the top 25, pharmaceutical companies based on 2020 global revenue, to hundreds of biotechnology companies and academic centers focused on translational research. As of June 30, 2021, we have placed more than 400 of our electroporation instruments worldwide. During the year ended December 31, 2020, we sold a total of 70 instruments and leased an additional 16 instruments to our customers.

We believe our ExPERT platform offers a compelling value proposition to our academic and biopharmaceutical customers due to: (i) the ability to use our technology to deliver almost any molecule into almost any cell type, including hard-to-transfect human primary cells, while maintaining high cell viability and function; (ii) the capacity to introduce larger and more diverse payloads compared to other intracellular delivery technologies, such as viral vectors; and (iii) the flexibility to scale up from research to current good manufacturing practices, or cGMP, manufacturing on a single platform — enabling the engineering of cells ranging from tens of thousands of cells to tens of billions of cells in a single transfection run in 30 minutes or less.

Our ExPERT technology platform is being used in the clinic to support the development of next-generation cell therapy approaches to treat human disease. Following the successful clinical development leading to FDA approvals of CAR-T cell therapies in blood-based cancer, developers have focused on improving efficacy, lowering the cost of manufacturing and/or expanding engineered cell therapies into new indications, such as solid tumors. To address these goals, the *ex vivo* cell therapy industry has trended towards developing more complex therapies that require sophisticated engineering and gene manipulation as well as the use of different starting cell types.

We believe we are well positioned in this market given the manufacturing supply constraints and payload size limitations of other delivery methods, such as viral vectors. Given our value proposition in non-viral delivery, we have established strategic relationships in the form of Strategic Platform Licenses, or SPLs, with a growing number of leading cell therapy developers as they work to bring next-generation cell therapies into and through the clinic and advance those candidates to potential commercialization. These SPLs provide us with the ability to secure downstream program-related pre-commercial milestones and, in most cases, commercial sales-based payments. In addition, from our SPL customers, we receive both annual research and clinical license fees as well as payments from sales of our proprietary disposables as recurring revenue streams.

We have entered into 13 SPLs with commercial cell therapy developers, which include: CRISPR/Casebia Therapeutics; CRISPR Therapeutics; Kite Pharma (now Gilead); Precision Biosciences; Editas Medicine; VOR Biopharma; KSQ; Allogene Therapeutics; Caribou Biosciences; Apeiron Biologics; Celularity; and Myeloid Therapeutics.

In addition to SPLs, we provide some customers, which could be academic institutions or commercial entities, with access to our instruments through licenses for research-only purposes, without the rights or ability to produce material for clinical use, or for use in the clinical evaluation and development of a therapeutic product intended for human use. We refer to these agreements as research licenses and clinical licenses, respectively. When referring to clinical agreements we sometimes include SPLs along with the clinical licenses, as the licenses granted cover ongoing or contemplated future clinical development programs being conducted by our customers.

Under these SPLs and other license agreements with our customers, in exchange for an annual license fee per instrument, we provide our customers with non-exclusive access to our:

- cGMP-compatible platform, which enables early-optimization and scale-up from preclinical research into clinical development using our intellectual property portfolio;
- FDA Master File and equivalent foreign Technical Files, which may accelerate and streamline development and reduce regulatory risk in the creation and development of our partners' therapeutic drug candidates;
- experienced commercial team of sales personnel and application scientists who work directly with our customers to solve cell engineering problems; and
- continuous know-how and cell engineering process improvements.

Of the over 75 clinical program licenses associated with our existing SPLs, more than 15% are in the clinic, meaning they have at least an FDA-cleared investigational new drug application, or IND. Our 13 SPLs have the potential to generate over $950 million in pre-commercial milestone payments if all of the licensed programs were to achieve regulatory approvals. In addition, under the SPLs, we typically have the potential to receive significant, sales-based commercial payments for approved products.

For the year ended December 31, 2020, one cell therapy company with which we have entered in to an SPL accounted for 15% of our total revenue, and our six largest SPL customers accounted for an aggregate of approximately 40% of our total revenue for the year through a combination of instrument license fees, milestones realized and processing assembly revenue.

Our current strategic partners have demonstrated success progressing next-generation cell therapies through the clinic, which has provided growing validation supporting our ability to facilitate complex cell engineering in a clinical setting. Further, our platform is supported by an FDA Master File. A Master File is a submission to the FDA with confidential detailed information about our products, methods, processes and data, which can be referenced by our customers to support their own regulatory filings, which we believe has the potential to reduce certain risks and challenges in connection with our customers' regulatory submissions and development timelines. Outside of the United States, similar Technical Files are in place or being pursued to support our customers' regulatory processes.

We aim to build a large, diversified portfolio of SPLs that enable us to participate in the economics of the near-term and long-term success of our partners' drug candidates. We estimate that the total addressable market opportunity for our ExPERT platform, based on the potential for current SPLs, was approximately $9 billion in 2020. We expect this market to grow to over $24 billion by 2026 driven by growth in the *ex vivo* cell therapy pipeline and a shift to use of non-viral delivery technologies as described in more detail under "Business — Our Market Opportunity."

Our Competitive Strengths

We believe our industry leadership position and continued growth will be driven by the following competitive strengths:

- ***Our proprietary technology platform unlocks the significant potential of advanced therapeutics***. We have built our ExPERT platform to advance the growing demands for non-viral delivery and next-generation cell and gene engineering approaches. Our platform technology enables delivery of almost any molecule into almost any cell type. We believe our platform leads the industry in performance (measured by consistency, efficiency, viability, flexibility and scale). Our platform is further supported by a robust intellectual property portfolio with 50 issued patents and 76 pending patent applications worldwide.
- ***Comprehensive, high-performance transfection platform***. We believe our ExPERT platform offers a unique value proposition given the flexibility to scale up from research to cGMP manufacturing on a single platform — enabling the engineering of cells ranging from tens of thousands of cells to tens of billions of cells in a single transfection run in 30 minutes or less. Our long-term internal engineering expertise is supplemented by our customer focused approach — with a growing application scientist team working with our customers across increasingly diverse applications.
- ***Positioned as a leader in the large and growing next-generation cell therapy market with the ability to capitalize on rising demand for non-viral approaches.*** We believe we are well positioned to capture increased market share within the large and growing next-generation cell therapy market. Since the FDA approved the first engineered CAR-T cell therapies to treat cancer in 2017, the number of cell therapy candidates being evaluated pre-clinically and clinically has grown exponentially. We expect growth to continue given the remaining high unmet medical need in cancer and other chronic conditions and predict increased investments in cell therapy product development across a variety of human diseases. We expect to grow our market share given the high performance of our platform and regulatory support through our FDA Master File as well as the ongoing shift to non-viral delivery as the industry has trended towards developing advanced cell-based therapies with complex engineering strategies to improve efficacy, reduce time to patient treatment and expand into new indications.

- ***Innovative partnership business model focused on value creation and shared success***. Our SPLs allow us to participate in the value creation of our customers' programs via pre-commercial milestones and in nearly all cases commercial sales-based payments. We intend to continue to build a portfolio of strategic partnerships with cell therapy developers, which provide us with a growing, diversified source of potential downstream revenue.

  In addition to the high performance and flexibility of the ExPERT platform, we believe our partnership model further reduces clinical risk and development timelines for our cell therapy partners. By entering into an SPL with us, for example, our partners gain access to our FDA Master File to support their IND-enabling studies and potentially shorten clinical development. Our FDA Master File was originally established in 2002 and has been continuously updated as platform improvements are implemented to support different applications and cell types. The FDA Master File and equivalent Technical Files in other countries can be referenced by our partners to support their own regulatory submissions with the goal of accelerating regulatory submissions processes for our partners. To date, our FDA Master File and Technical Files have been referenced by our customers in over 30 clinical trials.
- ***First-mover advantage has yielded broad-based adoption, with commercial model supported by top-tier customers.*** Our business model is supported by more than 20 years of investment and experience and has enabled us to cultivate long-standing and collaborative relationships with our significant and growing customer base. From leading commercial cell therapy drug developers and top biopharmaceutical companies to top academic and government research institutions, including the NIH, our customers have extensively validated our technology. We believe the features and performance of our platform have led to sustained customer engagement. Our existing customer base includes large biopharmaceutical companies, including all of the top 10, and 20 of the top 25, pharmaceutical companies based on 2020 global revenue. We now have 13 SPLs with commercial cell therapy developers, which together provide licenses for over 75 programs, of which currently more than 15% have advanced into clinical trials.
- ***Recurring revenue model provides high visibility, with drivers of potential long-term upside.*** Our business model enables us to generate substantial revenue from five sources: sales of instruments and disposables to new customers; additional sales of instruments and disposables to our existing installed base; annual instrument license fees from cell therapy customers; pre-commercial milestones under SPLs; and future potential commercial sales-based payments under SPLs. We generate high recurring revenue from our ExPERT instrumentation licenses and disposable sales, which provides visibility into future near-term revenue. Over the last three years, annual renewals of instrument licenses were greater than 80% on average — and for our SPLs were near 100%. In addition to recurring revenue, we have the potential to receive meaningful pre-commercial and commercial payments under SPLs if our customers are successful in advancing programs through the clinic and into the commercial stage. In aggregate, we have the potential to receive over $950 million in pre-commercial milestone payments under our current SPLs, if all of the covered programs were to receive regulatory approvals.
- ***Founder-led leadership team and workforce with deep domain knowledge.*** Our management team combines strong and broad subject matter expertise with a demonstrated history of commercial and operational execution. Moreover, our workforce has deep domain knowledge across a range of scientific, engineering, regulatory and business disciplines. We have supplemented our diverse technical experience by assembling a deep operational team with expertise in manufacturing, legal, sales, marketing, customer service and finance. We believe the team we have assembled with talent from multiple disciplines and a science- and customer-focused culture represents a significant competitive advantage for us. As of March 31, 2021, of our 65 full-time employees, 45 have advanced degrees, including 19 with Ph.D. degrees.

Our Growth Strategies

The key elements of our growth strategy include:

- ***Establish ExPERT as the standard of non-viral delivery technology in the rapidly growing cell therapy market.*** We are committed to continued investment in technology and

scientific innovation to maintain our market leadership position. We believe that the adaptability of, and continuous improvement in, our single-use disposable product portfolio via recent product launches exemplifies our partnership with our customers to meet varying processing volume requirements, for example. We plan to further invest in our current platform and potentially introduce new instruments and processing assemblies, or PAs, that allow us to meet the evolving needs of customers and move into new applications to better serve high-growth segments of the cell therapy market.

- ***Drive customer adoption and accelerate revenue growth through execution and expansion of our strategic marketing initiatives.*** We aim to accelerate our revenue growth by investing in our sales and application scientist teams to fuel growth in our underlying ExPERT platform and foster and develop new customer and SPL opportunities. We also see opportunity for geographic expansion, particularly in Asia, and the potential to further penetrate non-commercial customer accounts, including translational academic centers globally, which we believe will represent "hotspots" driving innovation that favor non-viral extracellular delivery technology. Finally, we expect to continue to cultivate academic collaborations and grow our application scientist team to gain exposure to and experience with up and coming cell and gene engineering approaches.
- ***Increase our number of SPLs.*** We plan to continue to pursue SPLs with target customers, including leading biopharmaceutical companies focused on cell therapies. We believe that there are a substantial number of potential SPL opportunities in the market and have seen a commensurate increase in our SPL discussions over the past several years. Given growth in the cell therapy pipeline and increased investment in the space, we estimate that the number of potential SPLs for us will increase from approximately 50 today, based on our estimate of the companies that are currently developing engineered cell therapies, to almost 140 by 2026, based on our estimates of growth in the cell therapy pipeline, growth in the number of therapeutic delivery entrants into the market and ongoing shift to non-viral delivery. We plan to aggressively pursue these opportunities and establish new SPLs by increasing business development activities and demonstrating our technological advantages over alternative methods.
- ***Commercialize our VLX Large-Scale Transfection System under the ExPERT brand to expand our capabilities into additional attractive market verticals, including large-scale bioprocessing and cell therapy applications.*** Our VLX Large-Scale Transfection System provides the ability to transfect up to approximately 200 billion cells, or ten times the number of cells and/or volume of the GTx/STx, in less than 30 minutes. The VLX has been sold to a limited number of customers for specific large-scale applications in a first generation design. We plan to align the current design of the VLX with the design, capabilities and branding of our ExPERT instruments, as well as make specific product enhancements that would be unique to the VLX. As part of this initiative, the VLX will be rebranded under the ExPERT brand as the "VLx." We believe that improving the design of the VLX and commercializing it under the ExPERT brand with an updated state-of-the art design, adding an on-board user interface, and developing associated cGMP compatible large-scale disposables and software protocols, would allow us to enter into large-scale bioprocessing applications including viral vector production in suspension cell cultures and rapid production of proteins, including monoclonal antibodies — as well as facilitate further scale up in allogeneic (or donor-derived) cell therapy approaches.
- ***Enhance manufacturing and research and development capabilities by investing in capacity as well as automation and process development.*** We intend to expand our manufacturing infrastructure. We plan to invest in our capacity to support increased demand for our instruments and disposables as our customers move further through the clinic and toward commercialization. We also plan to invest in the automation and final assembly of our PAs for greater control and for enhanced flexibility as our partners expand the use of our technology. Additionally, we plan to expand our research and development capabilities by investing in process development via expanding laboratory space, increasing capital investment in laboratory equipment and supplies and growing our scientific team — to continue to align our capabilities with the requirements of our customers and potentially support new product development.

- ***Opportunistically pursue strategic investments, partnerships and acquisitions.*** Our revenue growth to date has been organically driven by the addition of customers to our growing installed base of ExPERT users and expansion of our product offerings to those customers. We may consider opportunistic investments, partnerships and acquisitions that we believe will complement our product platform, allowing us to enter new markets and applications to enhance our growth profile. We also intend to establish new industry partnerships, enabling us to remain at the forefront of cell engineering trends and continue to collaborate with customers to accelerate the development and commercialization of new medicines.

Risk Factors Summary

Our business is subject to numerous risks that you should be aware of before making an investment decision. These risks are more fully described in the section titled “Risk Factors.” These risks include, among others:

- We have incurred significant losses since our inception, we expect to incur losses for the foreseeable future and we may never achieve or maintain profitability.
- We are highly dependent on a limited number of product offerings that require a substantial sales cycle and as a result we are prone to quarterly fluctuations in revenue. If we fail to maintain significant market acceptance in existing markets or fail to successfully increase our penetration in new and expanding markets, we will not generate expected revenue and our prospects may be harmed.
- We operate in a highly competitive market characterized by rapid technological change, evolving industry standards, changes in customer needs, emerging competition, new product introductions and strong price competition. Our success depends, in part, on our ability to maintain a competitive position in the development of technologies, enhancements and products for use by our customers.
- Our business currently depends significantly on research and development spending by biopharmaceutical companies and academic institutions, a reduction in which could limit demand for our products and adversely affect our business and operating results.
- We must develop new products, as well as enhancements to existing products, and adapt to rapid and significant technological change to remain competitive.
- If we cannot maintain and expand current partnerships and enter into new partnerships, including internationally, that generate marketed licensed products, our business could be adversely affected.
- The failure of our partners to meet their contractual obligations to us could adversely affect our business.
- Our partners may not achieve projected discovery and development milestones and other anticipated key events in the expected timelines or at all, or may discontinue some or all of their programs, which could have an adverse impact on our business.
- In recent periods, we have depended on a limited number of partners for our revenue, the loss of any of which could have an adverse impact on our business.
- We depend on continued supply of components and raw materials for our ExPERT instruments and PAs from third-party suppliers, and if shortages of these components or raw materials arise, we may not be able to secure enough components to build new products to meet customer demand or we may be forced to pay higher prices for these components. As such, we must also accurately forecast customer demand for our products and manage our inventory.
- Our FDA Master File, and equivalent Technical Files in foreign jurisdictions, are an important part of our strategic offering which allows our partners to expedite their cellular therapies into and through the clinic. Delays in filing or obtaining, or our inability to obtain or retain, acceptance of such filings in individual countries could negatively impact the progress of our partners if they intend to run clinical trials in such countries, and as a result, could negatively affect our reputation and revenues or require disclosure of confidential information to our partners.

- We may need additional funding beyond the proceeds of this offering and may be unable to raise capital when needed, which would force us to delay, reduce, eliminate or abandon our commercialization efforts or product development programs.
- The COVID-19 pandemic has had and could continue to have an adverse impact on our business, operations, and the markets and communities in which we, our partners and our customers operate.
- Upon the completion of this offering, our common stock will be traded on two separate stock markets and investors seeking to take advantage of price differences between such markets may create unexpected volatility in our share price; in addition, investors may not be able to easily move shares for trading between such markets.

Our Corporate Information

We were incorporated under the laws of the State of Delaware in July 1998 under the name Theramed, Inc. On December 31, 2001, we changed our name to MaxCyte, Inc. Our principal executive offices are located at 22 Firstfield Road, Suite 110, Gaithersburg, Maryland 20878, and our telephone number is (301) 944-1700. Our website address is www.maxcyte.com. Information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus or in deciding to purchase our common stock.

Trademarks and Service Marks

We have proprietary rights to a number of trademarks used in this prospectus which are important to our business. “MaxCyte,” “ExPERT,” “CARMA,” “Flow Electroporation,” “ATx,” “STx,” “GTx,” “VLX Large-Scale Transfection System” and our other registered and common law trade names, trademarks and service marks are the property of MaxCyte, Inc. Other trade names, trademarks and service marks used in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus may be referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Implications of Being an Emerging Growth Company

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We may take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm under Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a non-binding advisory vote on executive compensation and any golden parachute payments. We may take advantage of these exemptions until the last day of our fiscal year following the fifth anniversary of the completion of this offering. 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 any three-year period, we will cease to be an emerging growth company prior to the end of such five-year period. In addition, the JOBS Act provides that an emerging growth company can delay adopting new or revised accounting standards until those standards apply to private companies. We have elected to use the extended transition period under the JOBS Act. Accordingly, our financial statements may not be comparable to the financial statements of public companies that comply with such new or revised accounting standards.

THE OFFERING

Common stock offered by us	13,500,000 shares
Option to purchase additional shares of common stock offered by us	We have granted the underwriters an option, exercisable for 30 days after the date of this prospectus, to purchase up to an additional 2,025,000 shares from us. See the section of this prospectus titled "Underwriting."
Common stock to be outstanding after this offering	98,189,559 shares (100,214,559 shares if the option to purchase additional shares from us is exercised in full).
Use of proceeds	We estimate that our net proceeds from the sale of our common stock that we are offering will be approximately $160.2 million (or approximately $184.7 million if the underwriters' option to purchase additional shares of our common stock from us is exercised in full) after deducting underwriting discounts and commissions and estimated offering expenses payable by us. The principal purposes of this offering are to obtain additional capital to increase our financial flexibility, to support our operations and growth, to create a public market for our common stock in the United States and to enable access to the U.S. public equity markets for us and our stockholders. However, we currently intend to use the net proceeds we receive from this offering for research and development initiatives, to expand our manufacturing capabilities and invest in manufacturing automation, to expand our sales and marketing, business development and field application scientist teams, and for working capital and general corporate purposes. See the section titled "Use of Proceeds" for additional information.
Risk factors	You should carefully read the section titled "Risk Factors" beginning on page 12 and the other information included in this prospectus for a discussion of facts that you should consider before deciding to invest in shares of our common stock.
Nasdaq Global Select Market symbol	"MXCT"
AIM trading symbols	"MXCT", "MXCN"

The number of shares of common stock that will be outstanding after this offering is based on 84,689,559 shares of common stock outstanding as of March 31, 2021, and excludes:

- 12,071,923 shares of common stock issuable on the exercise of outstanding stock options as of March 31, 2021 under our Long-Term Incentive Plan, or our LTIP, with a weighted average exercise price of $4.41 per share;
- 4,131,667 shares of common stock reserved for future issuance as of March 31, 2021 under our LTIP; and
- 71,168 shares of common stock issuable on the exercise of an outstanding common stock warrant at an exercise price of $£1.09081 ($1.50477 based on the exchange rate of £1.00 to $1.3795, the exchange rate on March 31, 2021) per share.

In addition, unless we specifically state otherwise, the information in this prospectus assumes:

- no exercise of the underwriters' option to purchase additional shares of common stock from us in this offering; and
- no exercise of the outstanding stock options and warrant described above.

SUMMARY CONSOLIDATED FINANCIAL DATA

The summary consolidated statement of operations data for the years ended December 31, 2019 and 2020 and the summary consolidated balance sheet data as of December 31, 2020 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated statement of operations data for the three months ended March 31, 2020 and 2021 and the summary consolidated balance sheet data as of March 31, 2021 have been derived from our unaudited interim financial statements included elsewhere in this prospectus. You should read the financial data set forth below in conjunction with our consolidated financial statements and the accompanying notes and the information in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results to be expected for any period in the future.

	Years Ended December 31,		Three Months Ended March 31,	
	2019	2020	2020	2021
Consolidated Statement of Operations Data:				
Revenue	$ 21,620,700	$ 26,168,900	$ 5,742,000	$ 6,494,900
Costs of goods sold	2,499,200	2,767,000	659,000	693,100
Gross profit	19,121,500	23,401,900	5,083,000	5,801,800
Operating expenses:				
Research and development	17,601,200	17,744,300	4,244,700	6,077,700
Sales and marketing	7,852,100	8,328,700	2,050,100	2,789,100
General and administrative	6,088,200	8,385,600	1,776,500	3,308,100
Total operating expenses	31,541,500	34,458,600	8,071,300	12,174,900
Operating loss	(12,420,000)	(11,056,700)	(2,988,300)	(6,373,100)
Other income (expense):				
Interest and other expense	(681,100)	(825,600)	(116,300)	(742,300)
Interest and other income	206,100	65,900	42,700	9,800
Total other income (expense)	(475,000)	(759,700)	(73,600)	(732,500)
Net loss	$(12,895,000)	$(11,816,400)	$ (3,061,900)	$ (7,105,600)
Net loss per share, basic and diluted	$ (0.23)	$ (0.17)	$ (0.05)	$ (0.09)
Weighted-average common shares outstanding, basic and diluted	56,397,524	69,464,751	57,403,583	81,004,081

	As of March 31, 2021	
	Actual	As Adjusted(1)
Consolidated Balance Sheet Data:		
Cash and cash equivalents	$ 78,703,700	$ 238,918,700
Working capital(2)	77,015,100	237,230,100
Total assets	95,007,800	255,222,800
Total liabilities	13,722,200	13,722,200
Additional paid-in capital	182,766,600	342,846,600
Accumulated deficit	(102,327,900)	(102,327,900)
Total stockholders' equity	81,285,600	241,500,600

(1) The as adjusted balance sheet data gives effect to our receipt of estimated net proceeds from the sale of 13,500,000 shares of common stock that we are offering at a public offering price of $13.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

(2) Working capital is defined as current assets less current liabilities.

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should consider carefully the following risks and other information contained in this prospectus before you decide whether to buy our common stock. If any of the events contemplated by the following discussion of risks should occur, our business, results of operations, financial condition and growth prospects could suffer significantly. As a result, the market price of our common stock could decline, and you may lose all or part of the money you paid to buy our common stock. The risks below are not the only ones we face. Additional risks that we currently do not know about or that we currently believe to be immaterial may also impair our business. Certain statements below are forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements" in this prospectus.

Risks Related to Our Business and Growth Strategy

We are a cell engineering and life sciences company and have incurred significant losses since our inception, and we expect to incur losses for the foreseeable future. We have limited product offerings approved for commercial sale and may never achieve or maintain profitability.

We are a cell engineering and life sciences company focused on advancing the discovery, development and commercialization of next-generation cell-based medicines. The biopharmaceutical development industry, where the majority of our customers operate, is a highly speculative undertaking and involves a substantial degree of risk. We have incurred significant losses since inception and have financed our operations principally through private financings and sales of our securities in our initial public offering on AIM, a market operated by the London Stock Exchange, in March 2016. We have historically relied on sales and licensing of our ATx, STx and GTx instruments, as well as sales of our portfolio of single-use disposable processing assemblies, or PAs, for nearly all of our revenue. We may be unable to sell or license our instruments to new customers and existing customers may cease or reduce their utilization of our instruments or fail to renew licenses of our instruments. Our net losses were $12.9 million and $11.8 million for the years ended December 31, 2019 and 2020, respectively, and for the three months ended March 31, 2021, we had a net loss of $7.1 million. As of March 31, 2021, we had an accumulated deficit of $102.3 million. Our losses have resulted principally from expenses incurred for the research and clinical development of our proprietary cell therapy CARMA platform clinical candidate MCY-M11 and, to a lesser extent, our *ex vivo* cell engineering platforms and from sales and marketing costs, manufacturing expenses, management and administrative costs and other expenses that we have incurred while building our business infrastructure.

We concluded clinical activities associated with CARMA in the first half of 2021. We expect our expenses and operating losses, excluding CARMA, will continue to increase substantially for the foreseeable future as we expand our research and development efforts, expand the capabilities of our cell engineering platforms and operate as a public company in the United States. We anticipate that our expenses will increase substantially as we:

- continue to advance our *ex vivo* cell engineering platforms and develop new technologies related to our platform;
- acquire and license technologies aligned with our *ex vivo* cell engineering platforms;
- expand our operational, financial and management systems and increase personnel, including personnel to support our research and development, manufacturing and commercialization efforts;
- continue to develop, perfect and defend our intellectual property portfolio; and
- incur additional legal, accounting and other expenses in operating our business, including the additional costs associated with operating as a public company in the United States.

We have devoted a significant portion of our financial resources and efforts to building our organization, developing our *ex vivo* cell engineering platforms, acquiring technology, building out our manufacturing capabilities, organizing and staffing the company, business planning, establishing our intellectual property portfolio, raising capital, securing license and partnership arrangements with customers and providing general and administrative support for these operations.

To become and remain profitable, we must succeed in realizing meaningful pre-commercial milestone payments from our current SPLs and potentially secure future commercial partnership, licensing or collaboration arrangements for use of our cell engineering platforms and similar arrangements for future platforms in development that have not yet been partnered. This will require us to be successful in a range of challenging activities, including continuing to develop our technology and products, accessing, developing and advancing manufacturing capacity, advancing our sales and marketing capabilities and commercializing and selling our products. We may never succeed in any or all of these activities and, even if we do, we may never generate a level of revenue that is sufficient to achieve profitability. Even if we do achieve profitability, we may not be able to sustain profitability or meet outside expectations for our financial results, including profitability. If we are unable to achieve or sustain profitability or to meet outside expectations for our financial results, the value of our shares of common stock could be materially adversely affected.

We are highly dependent on a limited number of product offerings. Our revenue has been primarily generated from the sale and licensing of our ATx, STx and GTx instruments, as well as sales of single-use disposable PAs, which require a substantial sales cycle and are prone to quarterly fluctuations in revenue.

Our ExPERT technology platform and family of instruments — the ATx, STx and GTx, representing next-generation technology for complex cellular engineering, was commercially launched in April 2019. Sales and licensing of ExPERT technology systems and related instruments together accounted for 50% and 51% of our revenue for the years ended December 31, 2019 and 2020, respectively. We expect that, for at least the foreseeable future, sales and licensing of our ExPERT technology systems will continue to account for a substantial portion of our revenue. The sales cycle for our cell engineering instruments is complex and can take up to 12 months or longer to complete. Material, one-time milestones earned as Strategic Platform License, or SPL, customers achieve clinical progress may also, from time to time be a significant portion of our revenue, are not in our control, are unpredictable and because of the early-stage nature of the cell therapy clinical development, may contribute materially to the volatility of our revenue. As a result of our lengthy and unpredictable sales cycle, we will be prone to quarterly fluctuations in our revenue. Quarterly fluctuations may make it difficult for us to predict our future operating results. Consequently, comparisons of 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.

As a result of variability and unpredictability, we may also fail to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall short of the expectations of analysts or investors or any guidance we may provide, or if the guidance we provide falls short of the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met or exceeded any previously publicly stated guidance we may have provided.

We may be unable to successfully execute on our growth strategy.

We intend to grow our business and market opportunity by continuing to invest in technology and scientific innovation, broadening our distribution capabilities to expand our installed base of ExPERT products, pursuing SPLs with target customers, commercializing our VLX Large-Scale Transfection System under the ExPERT brand, expanding our commercial infrastructure and considering opportunistic investments, partnerships and acquisitions, among other initiatives. Each of these growth strategies will require considerable time and resources, and we may not be successful in executing on any or all of these strategies.

One of the components of our growth strategy is to develop and commercialize our novel VLX platform for large-scale bioprocessing applications including viral vector production in suspension cell cultures and rapid production of proteins. The VLX has been sold to a limited number of customers for specific large-scale applications in a first-generation design. We intend to align the current design of the VLX with the design, capabilities and branding of our ExPERT instruments (the STx, ATx and GTx) as well as to make specific product enhancements unique to the VLX to enable expansion into new applications such as large-scale bioprocessing and large-scale cell therapy. To improve the VLX platform and successfully penetrate new markets, we will be required to invest significant time, resources and capital investment in the development, production and launch of the VLX platform, which could divert our

resources from other parts of our business and growth strategy. In addition, the success of the redesigned ExPERT VLx, including new engineering modifications to the platform, may depend in part on the availability, compatibility and capability of appropriate technologies upstream and downstream of electroporation to support potential large-scale applications enabled by the VLX platform and willingness of customers to adopt the ExPERT VLx for new applications. Further, we could encounter delays and setbacks in the launch of the ExPERT VLx platform, including implementing engineering modifications necessary for certain large-scale applications, resulting in delayed acceptance by future customers and partners of such a large-scale system. In addition, the sales and implementation cycles of customers for such a large-scale platform may require more time than originally assumed, which could delay or negatively impact forecasted revenues.

Another component of our growth strategy is expanding our SPL model, through which we build collaborative relationships with our customers as we facilitate their efforts to bring critical cell-based medicines to the market. Even if we are able to enter into additional future SPL arrangements and similar arrangements for future therapeutic products that have not yet been partnered, there can be no assurance that any of the therapeutic products that are being or might be developed by our partners using our technology will continue to advance through clinical development, receive regulatory approvals or be successfully developed into commercially viable products. As a result, we may suffer setbacks in increasing awareness and adoption of our products in addition to the material impact on our financial results as a result of milestones not being realized and leased instruments being returned. Further, setbacks in the clinical trials of our current or future partners, such as serious adverse events, including patient deaths, could significantly impact capital available to customers and our ability to enter into future SPL agreements with new therapeutic product companies.

Our growth strategy also involves expanding our international operations. In addition to risks associated with international operations in general, we will also need to navigate complex foreign regulatory requirements with which we may not be familiar or have experience. To operate successfully in or obtain regulatory approval in other countries, we must comply with numerous and varying regulatory requirements of such countries regarding safety, efficacy, manufacturing, clinical trials, commercial sales, pricing and distribution of our products. Although our partners have repeatedly been able to reference our FDA Master File in the United States and our Technical Files in some other countries in the course of clinical development of their therapeutic products, we cannot ensure that we will obtain or establish a regulatory Technical File in other countries. If we fail to establish a regulatory Technical File in any jurisdiction, this could make customers in such jurisdictions less likely to adopt our instruments, and the geographic market for our products could be limited.

We believe there are several opportunities to grow our sales and product line. However, we have limited financial and managerial resources, and we may forego or delay pursuit of growth opportunities that later prove to have greater value to our business. Our resource allocation decisions may cause us to fail to capitalize on viable opportunities, and we could spend resources on strategies that are not ultimately successful.

The estimates of market opportunity and forecasts of market growth included in this prospectus or that we develop internally may prove to be inaccurate, and even if the markets in which we compete are as large as we estimate or achieve their forecasted growth, our business could fail to grow at projected rates, if at all.

Market opportunity estimates and growth forecasts included in this prospectus, including those we have generated ourselves, are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. The variables that go into the calculation of our market opportunity are subject to change over time, and there is no guarantee that any particular number or percentage of customers covered by our market opportunity estimates will purchase our products at all or generate any particular level of revenue for us. Any expansion in our market depends on a number of factors, including the cost and perceived value associated with our products and those of our competitors. Even if the markets in which we compete meet the size estimates and growth forecast in this prospectus, our business could fail to grow at projected rates, if at all. Our growth is subject to many factors, including our success in implementing our business strategy, which is subject to many risks and uncertainties. Accordingly, the forecasts of market size and growth included in this prospectus should not be taken as indicative of our future growth.

We rely on assumptions and estimates and data to calculate certain of our key metrics, and real or perceived inaccuracies in such metrics may harm our reputation and negatively affect our business.

In addition to our financial results, our management regularly reviews a number of operating and financial metrics, including a breakdown of product and leased revenue into instrument sales, PAs, and leased revenue (recurring revenue), product placements, cumulative product placements, revenue by customer market (cell therapy and drug discovery), and status or number of installed instruments, SPLs, program licenses (research, clinical and SPL) and potential pre-commercial milestones, to evaluate our business, measure our performance, identify trends affecting our business, formulate financial projections and make strategic decisions. As both the industry in which we operate and our businesses continue to evolve, so too might the metrics by which we evaluate our businesses. In addition, while the calculation of the metrics we use is based on what we believe to be reasonable estimates, our internal tools are not independently verified by a third party and have a number of limitations and, furthermore, our methodologies for tracking these metrics may change over time, for example, the industry breakdown of our customer revenue. Accordingly, investors should not place undue reliance on these metrics.

Our future success is dependent upon our ability to increase penetration in our existing markets and expand into adjacent markets.

Our customer base includes biopharmaceutical and biotechnology companies and academic institutions focused on cell-based therapeutics. Our success will depend in part upon our ability to increase our market penetration by expanding sales to existing customers and acquiring new customers and partnerships within our existing markets, and our ability to market new products and applications to existing and new customers as we develop such products and applications. Attracting new customers and introducing new products and applications require substantial time and expense. For example, it may be difficult to identify, engage and market to customers who are unfamiliar with our current products. We cannot guarantee that we will be able to further penetrate our existing markets or that these markets will be able to sustain our current and future product and service offerings. Any failure to increase penetration in our existing markets would adversely affect our ability to improve our operating results.

Our success will also depend on our ability to further expand into adjacent markets, such as penetrating non-commercial customer opportunities, including translational academic centers. Our failure to further expand in adjacent markets and attract new customers could adversely affect our ability to improve our operating results.

Due to the significant resources required to enable access in new markets, we must make strategic and operational decisions to prioritize certain markets, technology offerings and partnerships, and there can be no assurance that we will expend our resources successfully or in a way that results in meaningful revenue or capitalizes on potential new markets.

We believe our platform has potential applications across a wide range of markets and we have targeted certain markets in which we believe we have a higher probability of success or revenue opportunity or for which the path to commercialize products and realizing or achieving revenue is shorter. For example, we believe our products have applications in markets for engineered cell therapies in immuno-oncology and inherited disorders. We seek to continue to prioritize opportunities and allocate our resources among our programs to maintain a balance between advancing near-term opportunities and exploring additional markets for our technology. However, due to the significant resources required for the development for new markets, we must make decisions regarding which markets to pursue and the amount of resources to allocate to each. Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular markets or workflows may not lead to the development of any viable product and may divert resources away from better opportunities. Similarly, our potential decisions to delay, terminate or collaborate with third parties in respect of certain markets may subsequently also prove to be suboptimal and could cause us to miss valuable opportunities. In particular, if we are unable to develop additional relevant products and applications for markets such as cell therapy or large-scale bio-processing, it could slow or stop our business growth and negatively impact our business, financial condition, results of operations and prospects.

Our business is dependent on adoption of our products by biopharmaceutical companies and academic institutions for their research and development activities focused on cell-based therapeutics. If biopharmaceutical companies and academic institutions are unwilling to change current practices to adopt our products it will negatively affect our business, financial condition, prospects and results of operations.

Our primary strategy to grow our revenue is to market our products across key stakeholders in cell-based therapeutics, such as biopharmaceutical companies and academic institutions. Most of our potential customers already use expensive research systems in their laboratories and may be reluctant to replace those systems. While the number of customers using our products has increased in recent years, many biopharmaceutical companies and academic institutions have not yet adopted our products, and such institutions and companies may choose not to adopt our products for a number of reasons, including:

- inability to convince potential customers that our products are an attractive alternative to existing technologies and reluctance of potential customers to replace those existing technologies;
- inadequate recruiting or training of talented sales force and field application scientists in existing and new markets to facilitate outreach and further adoption and awareness of our products;
- lack of experience of potential customers with our products for cell engineering;
- perceived inadequacy of evidence supporting benefits or cost-effectiveness of our products over existing alternatives or negative publicity regarding cell engineering technologies;
- liability risks generally associated with the use of new products and processes;
- the time and training required for potential customers to use and validate our products;
- a decrease or delay in the research and development activities using our products as a result of the COVID-19 pandemic;
- competing products and alternatives; and
- introduction of other novel alternative products for cell engineering.

In addition, our customers may experience a change of control or otherwise consolidate with other biopharmaceutical companies and academic institutions. If as a result of such change of control, our customers choose or are forced to adopt other products, or otherwise reduce their use of our products, our ability to execute our growth strategy will be impaired and it will negatively affect our business, financial condition, prospects and results of operations.

We believe that educating notable industry key opinion leaders, or KOLs, and representatives of biopharmaceutical companies and academic institutions about the merits and benefits of our products for Flow Electroporation and cell engineering is one of the key elements of increasing the adoption of our products. If these KOLs, institutions and companies do not adopt our products for any reason, including those listed above, acceptance and adoption of our products will be slowed, our ability to execute our growth strategy will be impaired, and it will negatively affect our business, financial condition, prospects and results of operations.

We may be unable to compete successfully against our existing or future competitors.

We operate in a highly competitive market characterized by rapid technological change, evolving industry standards, changes in customer needs, emerging competition, new product introductions and strong price competition. We currently compete with both established and early-stage life sciences technologies companies that design, manufacture and market electroporation and other non-viral cell engineering technology based on efficacy, price, ease of use, reimbursement and customer support services.

Our success depends, in part, on our ability to maintain a competitive position in the development of technologies, enhancements and products for use by our customers. Many of the companies developing or marketing competing or alternative products have competitive advantages when compared to us, including:

- greater financial and human resources for product development, sales and marketing;

- greater domestic and international name recognition and more product familiarity among users;
- broader and more established relationships with pharmaceutical companies and academic institutions;
- broader product lines and the ability to offer lower prices or rebates, integrate technologies more successfully to offer better workflow solutions, bundle products to offer greater discounts or incentives or offer more attractive milestone and partnership terms;
- broader intellectual property protection for their technology and products;
- broader and more established domestic and international sales and marketing and distribution networks; and
- more experience in conducting research and development, manufacturing and preparing regulatory submissions, both in the United States and in foreign jurisdictions.

We primarily compete against products marketed by Lonza Group AG, Thermo Fisher Scientific Inc., Miltenyi Biotec, Bio-Rad Laboratories, Inc. and Harvard Bioscience, Inc. (BTX).

In addition to already marketed products, we also face competition from products that are or could be under development and that target the same applications as our products or applications that we may address in the future. Such product candidates may be developed by the above-mentioned entities and others, including life sciences tools companies, biotechnology companies, pharmaceutical companies, private and public research institutions and academic institutions or may come about as the result of consolidation in our industry. Our competitors may develop and patent processes or products earlier than we can, obtain regulatory clearance or approvals for competing products more rapidly than we can and develop more effective and/or less expensive products or technologies that render our technology or products obsolete or non-competitive. Despite the steps we have taken to maintain and protect our intellectual property, competitors may nevertheless attempt to, or succeed in, developing similar electroporation technology, including Flow Electroporation. We also compete with other organizations in recruiting and retaining qualified scientific and management personnel. If our competitors are more successful than us in these matters, we may be unable to compete successfully against our existing or future competitors.

Our business currently depends significantly on research and development spending by biopharmaceutical companies, a reduction in which could limit demand for our products and adversely affect our business and operating results.

A portion of our revenue is derived from sales to biopharmaceutical companies and academic institutions. Much of their funding is, in turn, provided by public and private financings, including investments from venture capital funds and, for public companies, the capital markets. In the near term, we expect that a portion of our revenue will continue to be derived from sales to biopharmaceutical companies and academic institutions. Accordingly, the spending policies and practices of these customers — which have been impacted by the COVID-19 pandemic and may additionally be impacted by other factors — could have a significant effect on the demand for our products. In addition, the demand for our products may depend upon the research and development budgets of these customers, which are impacted by factors beyond our control, such as:

- macroeconomic conditions and the political climate;
- investor confidence in the biopharmaceutical industry and the amount of capital such investors provide to our potential customers;
- reduced pricing of approved therapeutics;
- scientists' and customers' opinions of the utility of new products or services;
- changes in the regulatory environment;
- differences in budgetary cycles;
- competitor product offerings or pricing;
- merger and acquisition activity within the industry;
- market-driven pressures to consolidate operations and reduce costs;
- market acceptance of relatively new technologies, such as ours;

- clinical trial or milestone failures that impact our customers' ability to raise capital; and
- inability to sustain capital requirements or bankruptcy.

In addition, while the majority of our revenues are derived from biopharmaceutical customers, various state, federal and foreign agencies that provide grants and other funding may be subject to stringent budgetary constraints that could result in spending reductions, reduced grant making, reduced allocations or budget cutbacks, which could jeopardize the ability of these customers, or the customers to whom they provide funding, to purchase our products. For example, congressional appropriations to the National Institutes of Health, or NIH, have generally increased year-over-year in recent years, but the NIH also experiences occasional year-over-year decreases in appropriations. There is no guarantee that NIH appropriations will not decrease or cease in the future. A decrease in the amount of, or delay in the approval of, appropriations to NIH or other similar United States or foreign organizations, such as the Medical Research Council in the United Kingdom, could result in fewer grants benefiting life sciences research. These reductions or delays could also result in a decrease in the aggregate amount of grants awarded for life sciences research or the redirection of existing funding to other projects or priorities, any of which in turn could cause our customers and potential customers to reduce or delay purchases or licensing of our products.

Our operating results may fluctuate substantially due to the potential changes in our customers' resources as described above. Any decrease in our customers' budgets or expenditures, or in the size, scope or frequency of their capital or operating expenditures, could materially and adversely affect our business, operating results and financial condition.

Our current research and development efforts may not produce significant revenue for several years, if at all.

Developing our products is expensive, and the investment in product development may involve a long payback cycle. Our investment in research and development may not result in the data we hope to develop to support marketing of our products or in marketable products or may result in products that take longer to generate revenue, or generate less revenue, than we anticipate. For the year ended December 31, 2020 and the three months ended March 31, 2021, our research and development expenses were $17.7 million and $6.1 million, respectively, or approximately 68% and 94%, respectively, of our total revenue, These amounts included $11.1 million and $3.9 million, respectively, of investment in our CARMA platform including the clinical investment in our wholly-owned cell therapy candidate, MCY-M11. Our future plans include significant investments in research and development of product opportunities for expansion of our products and new application areas for our products. We believe that we must continue to dedicate a significant amount of resources to our research and development efforts to maintain our competitive position. However, we may not receive significant revenue from these investments for several years, if at all.

Our international operations may raise additional risks, which could have an adverse effect on our operating results.

International customers have typically accounted for a meaningful portion of our revenue. For the year ended December 31, 2020, approximately 27% of our revenue was derived from international customers, with the most significant markets being Switzerland and the United Kingdom. We expect our international revenue and operations will continue to expand in the future. Our international operations are subject to a variety of risks that we do not face in the United States, including:

- the difficulty of increased travel, infrastructure and legal compliance costs associated with developing international revenue;
- difficulties in enforcing contracts, collecting accounts receivable and longer payment cycles, especially in emerging markets;
- general economic conditions in the countries in which we operate;
- additional withholding taxes or other taxes on our foreign income, and tariffs or other restrictions on foreign trade or investment;
- compliance with privacy and data security requirements in foreign jurisdictions in which we operate;
- imposition of, or unexpected adverse changes in, foreign laws or regulatory requirements, many of which differ from those in the United States;

- costs and delays associated with developing products or technology in multiple languages, such as the software embedded in our products;
- compliance with foreign technical standards;
- increased length of time for shipping and acceptance of our products;
- increased exposure to foreign currency exchange rate risk;
- uncertainties related to the political and economic environments, including related to the recent withdrawal of the United Kingdom from the European Union;
- reduced protection for intellectual property rights in some countries, particularly China; and
- political unrest, war, incidents of terrorism, or responses to such events.

As we continue to expand our business globally, our success will depend, in large part, on our ability to anticipate and effectively manage these and other risks associated with our international operations.

Our overall success in international markets depends, in part, on our ability to succeed in differing legal, regulatory, economic, social and political conditions. We may not be successful in developing and implementing policies and strategies that will be effective in managing these risks in each country where we do business. Our failure to manage these risks successfully could harm our international operations, reduce our international sales and increase our costs, thus adversely affecting our business, operating results and financial condition.

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

We differentiate ourselves from our competition through our commitment to an exceptional customer experience. Accordingly, high-quality customer service is important for the growth of our business and any failure to maintain such standards of customer service, or a related market perception, could affect our ability to sell products to existing and prospective customers. The number of our customers has grown significantly and such growth, as well as any future growth, will put additional pressure on our field application scientists and customer service organization. We may be unable to hire qualified staff quickly enough or to the extent necessary to accommodate increases in demand. Providing an exceptional customer experience requires significant time and resources from our customer service team. Therefore, failure to scale our customer service organization adequately may adversely impact our business results and financial condition.

Customers utilize our service teams and online content for help with a variety of topics, including how to use our products efficiently, how to integrate our products into existing workflows, and how to resolve technical, analysis and operational issues if and when they arise. While we have developed significant resources for remote training and customer service, including our virtual product demonstration process, if our customers do not adopt these resources, we may be required to increase the staffing of our customer service team, which would increase our costs. Also, as our business scales, we may need to engage third-party customer service providers, which could increase our costs and negatively impact the quality of the customer experience if such third parties are unable to provide service levels equivalent to ours.

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

If we cannot maintain and expand current partnerships and enter into new partnerships that generate marketed licensed products, our business could be adversely affected.

We do not have our own pipeline of therapeutic candidates, and instead we focus our efforts on the development of our cell engineering offerings, including our ExPERT platform. Our partners then use our instruments and PAs for cell engineering to develop their own therapeutic candidates without our direct involvement. As a result, our success depends on our ability to expand the number and scope of our partnerships. Many factors may impact the success of these partnerships, including our ability to perform our obligations, our partners' satisfaction with our products, competitive offerings of other

companies, our partners' ability to successfully develop, secure regulatory approval for and commercialize therapeutic candidates using our products, our partners' internal priorities (including fluctuations in research and developments budgets), our partners' resource allocation decisions and competitive opportunities, disagreements with partners, the costs required of either party to the partnerships and related financing needs, and operating, legal and other risks in any relevant jurisdiction, as well as severe adverse events in cell therapy trials regardless of association with our partners.

We engage in conversations with companies regarding potential partnerships on an ongoing basis. These conversations may not result in a commercial agreement. Even if an agreement is reached, the resulting relationship may not be successful, including due to factors beyond our control, such as our partners' inability to successfully develop or commercialize their therapeutic candidates. In such circumstances, we would not generate any substantial revenues from such a collaboration in the form of milestone payments, royalties or otherwise. Speculation in the industry about our existing or potential partnerships can be a catalyst for adverse speculation about us which can adversely affect our reputation and our business.

Further, our customers are subject to the extensive risks and uncertainties that apply to product candidates in this area including those associated with preclinical and clinical research and development and related regulatory and Institutional Review Board authorization and oversight, manufacturing challenges and compliance standards, the data requirements and review process for seeking marketing authorization, and the potential for safety and efficacy concerns to emerge at any stage of product development and even after approval.

If the quality or delivery of our products does not meet our customers' expectations and needs relative to their regulatory obligations, our reputation could suffer and ultimately our sales and financial results could be negatively impacted.

Our customers operate in a highly regulated industry. In the course of conducting our business, our customers will expect us to adequately address any quality issues suspected to be associated with our products, including defects in our engineering, design, manufacturing and delivery processes, as well as defects in third-party components included in our products. The occurrence of defects in our products may increase as we continue to introduce new products and as we rapidly scale up manufacturing to meet potentially increased customer demand. Although we have established internal procedures designed to reduce the risks of product quality issues that may arise, there can be no assurance that we will be able to eliminate or mitigate occurrences of these issues and associated potential liabilities. In addition, identifying the root cause of quality issues may be difficult, which increases the time needed to address quality issues as they arise and increases the risk that similar problems could recur. Finding solutions to quality issues can be expensive and we may incur significant costs or lost revenue in connection with, for example, shipment holds, product recalls or other service obligations. In addition, quality issues can impair our relationships with new or existing customers and adversely affect our brand image, and our reputation could suffer, which could adversely affect our business, financial condition, results of operations, cash flows and prospects.

The failure of our partners to meet their contractual obligations to us could adversely affect our business.

Our reliance on our partners poses a number of additional risks, including the risk that they may not perform their contractual obligations to us to our standards, in compliance with applicable legal or contractual requirements, in a timely manner or at all; they may not maintain the confidentiality of our proprietary information; and disagreements or disputes could arise that could cause delays in, or termination of, the research, development or commercialization of therapeutic candidates produced using our instruments and PAs.

In addition, certain of our partners are large, multinational organizations that run many programs concurrently, and we are dependent on their ability to accurately track and make milestone payments to us pursuant to the terms of our agreements with them. Any failure by them to inform us when milestones are reached and make related payments to us could adversely affect our results of operations.

Some of our partners are located in markets subject to political and social risk, corruption, infrastructure problems and natural disasters, and are often subject to country-specific privacy and

data security risk as well as burdensome legal and regulatory requirements. Any of these factors could adversely impact their financial condition and results of operations, which could impair their ability to meet their contractual obligations to us, which may have a material adverse effect on our business, financial condition and results of operations.

Our partners have significant discretion in determining when and whether to make announcements, if any, about the status of their clinical developments and timelines for advancing collaborative programs, and the price of our common stock may decline as a result of announcements of unexpected results or developments.

Our partners have significant discretion in determining when and whether to make announcements about the status of their programs that use our technology, including their preclinical and clinical programs, such as setbacks or terminations, and timelines for advancing therapeutic candidates developed using our platform. We do not plan to disclose the development status and progress of individual therapeutic candidates of our partners. Our partners may wish to report such information more or less frequently than we prefer or may not wish to report such information at all. In addition, if partners choose to announce a collaboration with us or their progress, there is no guarantee that we will concurrently recognize any fees or that such announcement will be indicative of future fees to us, as such fees are not due to us until our partner reaches certain specific activities or clinical progress events, for example investigational new drug, or IND, submissions or start of pivotal trials. The price of our common stock may decline as a result of the public announcement of unexpected results or developments in our partnerships, or as a result of our partners withholding such information.

Our partners may not achieve projected development and regulatory milestones and other anticipated key events in the expected timelines or at all, or may discontinue some or all of their programs, which could have an adverse impact on our business and could cause the price of our common stock to decline.

From time to time, we may make public statements regarding the expected timing of certain milestones and key events, as well as regarding developments and milestones under our partnerships, to the extent that our partners have publicly disclosed such information or permit us to make such disclosures. Certain of our partners have also made public statements regarding their expectations for the development of programs under partnership with us and they and other partners may in the future make additional statements about their goals and expectations for the progress of their programs and/or their partnerships with us. The actual timing of these events and any resultant revenue to us can vary dramatically due to a number of factors such as delays or failures in our or our current and future partners' therapeutic discovery and development programs and the numerous uncertainties inherent in the development of therapeutics. As a result, there can be no assurance that our partners' current and future programs will advance or be completed in the time frames we or they expect, or at all. In addition, we have very little visibility into, or advance notice of, any changes in our partners' development timelines and expectations, which means that we may not be able to swiftly react and adapt to changed expectations related to the achievement and payment of milestones under our agreements. If our partners fail to achieve one or more of these milestones or other key events as we or they expect, our business could be materially adversely affected and the price of our common stock could decline.

Biopharmaceutical drug and therapeutics development is inherently uncertain, and it is possible that none of the drug or therapeutic candidates discovered using our platform that are further developed by our partners will receive marketing approval or become viable commercial products, on a timely basis or at all.

We offer our cell engineering platform to partners who are engaged in drug and therapeutics discovery and development. These partners include large pharmaceutical companies, biotechnology companies of all sizes and non-profit and academic institutions. While we receive early payments generated through sales of our ExPERT instruments and PAs and recurring revenue through the annual licenses of the ExPERT instrument to our partners, we estimate that the vast majority of the economic value of the SPLs that we enter into with our partners is in the downstream payments that are payable if certain milestones are met or approved products are sold. As a result, our future growth is dependent on the ability of our partners to successfully develop and commercialize therapies discovered or produced using our platform. Due to our reliance on our partners, the risks relating to product development, regulatory clearance, authorization or approval and commercialization apply to us

derivatively through the activities of our partners. There can be no assurance that our partners will successfully develop, secure marketing approvals for and commercialize any drug or therapeutic candidates discovered or produced with our instruments. As a result, we may not realize the intended benefits of our partnerships. Since 2017, we have entered into 13 SPLs resulting in a growing number of clinical milestone payments, but we have not yet had a licensed program receive regulatory marketing approval.

Due to the uncertain, time-consuming and costly clinical development and regulatory approval process, our partners may not successfully develop any drug or therapeutic candidates with our platform, or our partners may choose to discontinue the development of these drug candidates for a variety of reasons, including due to safety, risk versus benefit profile, exclusivity, competitive landscape, manufacturing challenges, commercialization potential, production limitations or prioritization of their resources. For product candidates of the type expected to be developed using our technology, there is the potential they could create a safety risk to patients and can also limit product efficacy. It is possible that none of these drug or therapeutic candidates will ever receive regulatory approval and, even if approved, such drug candidates may never be successfully commercialized resulting in clinical progress milestones and commercial sales-based payments not being earned.

Regulatory authorities have substantial discretion in the review and approval process and may refuse to accept any application or may decide that our partners' data are insufficient to support progression to further stages of preclinical or clinical development or for marketing approval and require additional preclinical, clinical or other studies. The number and types of preclinical studies and clinical trials that will be required for regulatory approval also varies depending on the product candidate (including cell therapies, for which development is inherently challenging), the disease or condition that the product candidate is designed to address, and the regulations applicable to any particular product candidate. Application of the legal and regulatory standards for approval, and the type and amount of clinical data and data supporting Chemistry, Manufacturing and Control necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. It is possible that any product candidates our partners may seek to develop in the future will never obtain the appropriate, necessary regulatory approvals.

In addition, even if these drug or therapeutic candidates receive regulatory approval in the United States, our partners may never obtain approval or commercialize such drugs outside of the United States, which would limit their full market potential and therefore our ability to realize their potential downstream value. Furthermore, approved drugs or therapeutics may not achieve broad market acceptance among physicians, patients, the medical community and third-party payors, in which case revenue generated from their sales would be limited. Third-party payers may opt to implement efficacy-based payment mechanisms over a multi-year period, which could impact potential product sales in any given year. Likewise, our partners have to make decisions about which clinical stage and pre-clinical drug and therapeutic candidates to develop and advance, and our partners may not have the resources to invest in all of the drug or therapeutic candidates that are produced using our platform, or clinical data and other development considerations may not support the advancement of one or more drug candidates developed using our platform. Decision-making about which drug or therapeutic candidates to prioritize involves inherent uncertainty, and our partners' development program decision-making and resource prioritization decisions, which are outside of our control, may adversely affect the potential value of those partnerships. Additionally, subject to its contractual obligations to us, if one or more of our partners is involved in a business combination, the partner might deemphasize or terminate the development or commercialization of any drug or therapeutic candidate that utilizes our platform. If one of our SPL customers terminates its agreement with us, we may find it more difficult to attract new partners.

Our partners, and therefore our potential financial outcomes under our agreements, are also subject to inherent industry-wide FDA and other regulatory risk. The number of new drug applications and biologics license applications approved by the FDA varies significantly over time and if there were to be an extended reduction in the number of new drug applications and biologics license applications approved by the FDA, the industry would contract and our business would be materially harmed. Furthermore, regulatory agencies may introduce new submission requirements or implement new

regulations for cell and gene therapies which could result in extended timelines for our partners, creating uncertainty or delays in achieving milestones. Such delays in these milestones will materially affect our ability to forecast and receive milestone payments outlined in our license agreements.

Our partners' failure to effectively advance, market and sell suitable drug and therapeutic candidates developed using our platform could have a material adverse effect on our business, financial condition, results of operations and prospects, and cause the market price of our common stock to decline. In addition to the inherent uncertainty in drug development addressed above, our ability to forecast our future revenues may be limited.

In recent periods, we have depended on a limited number of partners for our revenue, the loss of any of which could have an adverse impact on our business.

For the year ended December 31, 2020, one cell therapy company with which we have entered into an SPL accounted for 15% of our total revenue, and our six largest such customers accounted for an aggregate of approximately 40% of our total revenue for the year through a combination of instrument license fees, milestones realized and processing assembly revenue. These partnerships cover a large number of programs under contract, and therefore represent a large portion of potential downstream value. In addition, our partnership agreements are typically terminable at will. As a result, if we fail to maintain our relationships with our partners or if any of our partners discontinue their programs or transition to alternative cell engineering technologies, our future results of operations could be materially and adversely affected.

Similarly, in recent periods, a portion of our revenue has been derived from milestone payments from a limited number of SPL customers. Accordingly, we are more dependent on the success of a limited number of our customers' programs than we would be if our revenue was derived more broadly from many customer contracts. The loss of any of our large customers, or significant delays or discontinuations in our customers' programs, would have an adverse effect on our ability to generate revenue.

Our customers' products or product candidates may cause undesirable side effects or have other properties that could delay or prevent their regulatory approval, limit their commercial potential or result in significant negative consequences following any potential marketing approval, which could cause our future results of operations to be materially and adversely affected.

Serious adverse events or undesirable side effects caused by our customers' products or product candidates could cause regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA, the European Medicines Agency or other authorities. Results of our customers' clinical trials could reveal a high and unacceptable severity and prevalence of side effects, toxicities or unexpected characteristics, including death.

If unacceptable side effects or deaths arise in the development of our customers' product candidates, the Institutional Review Boards at the institutions in which their studies are conducted, the FDA or any comparable foreign regulatory authority could suspend or terminate our customers' clinical trials or the FDA or other regulatory authorities could order them to cease clinical trials or deny approval of their product candidates for any or all targeted indications. Undesirable side effects or deaths in clinical trials with our customers' product candidates may cause the FDA or comparable foreign regulatory authorities to place a clinical hold on the associated clinical trials, to require additional studies, or otherwise to delay or deny approval of our customers' product candidates for any or all targeted indications. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff. Any of these occurrences could negatively impact the availability of capital for the broader cell therapy development market, reduce the demand for our products and harm our business, financial condition and prospects significantly.

We may continue to pursue collaborations or licensing arrangements, joint ventures, strategic alliances, partnerships or other strategic investment or arrangements, which may fail to produce anticipated benefits and adversely affect our operations.

We may continue to pursue opportunities for collaboration, out-license, joint ventures, acquisitions of products, assets or technology, strategic alliances, or partnerships that we believe would advance

our development. We may consider pursuing growth through the acquisition of technology, assets or other businesses that may enable us to enhance our technologies and capabilities. Proposing, negotiating and implementing these opportunities may be a lengthy and complex process. Other companies, including those with substantially greater financial, marketing, technology, or other business resources, may compete with us for these opportunities or arrangements. We may not be able to identify, secure, or complete any such transactions or arrangements in a timely manner, on a cost-effective basis, on acceptable terms, or at all.

We have limited experience with respect to these business development activities. Management and integration of a licensing arrangement, collaboration, joint venture or other strategic arrangement may disrupt our current operations, decrease our profitability, result in significant expenses, or divert management resources that otherwise would be available for our existing business. We may not realize the anticipated benefits of any such transaction or arrangement.

Furthermore, partners, collaborators, or other parties to such transactions or arrangements may fail to fully perform their obligations or meet our expectations or cooperate with us satisfactorily for various reasons and subject us to potential risks, including the followings:

- partners, collaborators, or other parties have significant discretion in determining the efforts and resources that they will apply to a transaction or arrangement;
- partners, collaborators, or other parties could independently develop, or develop with third parties, services and products that compete directly or indirectly with our product candidates;
- partners, collaborators, or other parties may stop, delay or discontinue clinical trials as well as repeat clinical trials or conduct new clinical trials by using our intellectual property or proprietary information;
- partners, collaborators, or other parties may not properly maintain or defend our intellectual property rights or may use our intellectual property or proprietary information in a way that gives rise to actual or threatened litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential liabilities;
- disputes may arise between us and partners, collaborators, or other parties that cause the delay or termination of the research, development or commercialization of our product candidates, or that result in costly litigation or arbitration that diverts management's attention and resources;
- partners, collaborators, or other parties may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable services and products; and
- partners, collaborators, or other parties may own or co-own intellectual properties covering our product candidates that results from our collaborating with them, and in such cases, we would not have the exclusive right to commercialize such intellectual properties.

Any such transactions or arrangements may also require actions, consents, approval, waiver, participation or involvement of various degrees from third parties, such as regulators, government authorities, creditors, licensors or licensees, related individuals, suppliers, distributors, shareholders or other stakeholders or interested parties. There is no assurance that such third parties will be cooperative as we desire, or at all, in which case we may be unable to carry out the relevant transactions or arrangements.

We may engage in future acquisitions that could disrupt our business, cause dilution to our stockholders and harm our financial condition and operating results.

In the future, we may acquire companies, assets or technologies in an effort to complement our existing offerings to enhance our market position. We have not made any acquisitions to date and we currently have no plans, proposals or arrangements with respect to any acquisition. Should we choose to pursue an acquisition in the future, we may not be able to find suitable acquisition candidates and we may not be able to complete acquisitions on favorable terms, if at all. Any future acquisitions we make could subject us to a number of risks, including:

- the purchase price we pay could significantly deplete our cash reserves, impair our future operating flexibility or result in dilution to our existing stockholders;

- we may find that the acquired company, assets or technology does not further improve our financial and strategic position as planned;
- we may find that we overpaid for the company, asset or technology, or that the economic conditions underlying our acquisition have changed;
- we may have difficulty integrating the operations and personnel of the acquired company;
- we may have difficulty retaining the employees with the technical skills needed to enhance and provide services with respect to the acquired assets or technologies;
- the acquisition may be viewed negatively by customers, financial markets, or investors;
- we may have difficulty incorporating the acquired technologies or products with our existing products;
- we may encounter difficulty entering and competing in new product or geographic markets;
- we may encounter a competitive response, including price competition or intellectual property litigation;
- we may have product liability, customer liability or intellectual property liability associated with the sale of the acquired company's products;
- we may be subject to litigation by terminated employees or third parties;
- we may incur debt and restructuring charges;
- we may acquire goodwill and other intangible assets that are subject to impairment tests, which could result in future impairment charges;
- our ongoing business and management's attention may be disrupted or diverted by transition or integration issues and the complexity of managing geographically or culturally diverse enterprises; and
- our due diligence process may fail to identify significant existing issues with the target company's product quality, product architecture, financial disclosures, accounting practices, internal controls, legal contingencies, intellectual property and other matters.

Any acquisitions may not generate sufficient revenue to offset the associated costs of the transactions or may result in other adverse effects, which could have a material adverse effect on our business, operating results, and financial condition. In addition, negotiations for acquisitions, collaborations or investments that are not ultimately consummated could result in significant diversion of management time, as well as substantial out-of-pocket costs, any of which could have a material adverse effect on our business, operating results and financial condition.

Risks Related to the Supply and Manufacturing of Our Products

We depend on continued supply of components and raw materials for our ExPERT instruments and PAs from third-party suppliers, and if shortages of these components or raw materials arise, we may not be able to secure enough components to build new products to meet customer demand or we may be forced to pay higher prices for these components.

We rely on a limited number of suppliers for certain key components utilized in the assembly of our ExPERT instruments and manufacture of our PAs and buffer, and in some cases, such as certain instrument components, for example CPU chips or PA electrodes, we rely on a single supplier for a particular component, subassembly or consumable. Approximately 47% of our inventory held at December 31, 2020 was purchased from one supplier. Although in many cases we use standard components in our products, in some cases, components may only be purchased from a limited number of suppliers or a single supplier. Identifying and qualifying alternate sources may take time and involve additional expense, and there is no guarantee that current suppliers or alternate sources will timely deliver materials that meet our needs. If our customers experience a shortage or delay in delivery of our ExPERT instruments, PAs or buffers our business could be materially and adversely impacted.

Neither we nor our contract manufacturers enter into long-term supply contracts for these components, and none of our third-party suppliers is obligated to supply products to us for any specific period or in any specific quantities, except as may be provided for in submitted and accepted purchase orders. We are not a major customer of many of our suppliers, and these suppliers may therefore give other customers' needs higher priority than ours. Our industry has experienced component shortages

and delivery delays in the past, and we may experience shortages or delays of critical components in the future as a result of strong demand in the industry, high demand in unrelated industries (e.g. shortages of electronic components due to digitization in the automotive industry), or other factors. Many of the other components required to build our ExPERT instruments are also occasionally in short supply. Therefore, if shortages or delays arise, we may not be able to timely secure enough components at reasonable prices or of acceptable quality to build new products, resulting in an inability to meet customer demand or our own operating goals, which could adversely affect our customer relationships, business, operating results and financial condition.

Many of the components that we use are part of the global supply chain and may be manufactured overseas. Therefore, our access to, or ability to acquire, components may be impacted by trade disputes or importation restrictions resulting from such trade disputes between governments. These disputes may result in increased tariffs, duties or taxes that will increase the cost of the components and we may have to increase the price of our products, or incur an impact on our margins, both of which can materially affect customer demand and resulting revenues.

Additionally, damage to a manufacturing facility or other property of any of our suppliers or their distribution channels due to fire, flood or other natural disaster or casualty event may have a material adverse effect on our business, financial condition and results of operations.

We have limited experience manufacturing our PAs and if we move manufacturing of our PAs in-house in the future and are unable to manufacture our PAs in high-quality commercial quantities successfully and consistently to meet demand, our growth will be limited.

We have limited experience manufacturing our products. We do not currently manufacture our PAs in-house but may choose to do so in the future. To manufacture our PAs in the quantities that we believe will be required to meet the currently anticipated market demand, we will need to increase manufacturing capacity, which will involve significant challenges and may require additional quality controls. We may not successfully complete any required increase to existing manufacturing capacity in a timely manner, or at all.

If there is a disruption to our manufacturing operations, we will have no other means of producing our products until we resolve such issues with our manufacturing facilities, develop alternative manufacturing facilities, or contract with third-party manufacturers capable of producing our PAs. Additionally, any damage to or destruction of our manufacturing facilities or equipment may significantly impair our ability to supply PAs on a timely basis. There may also be unforeseen occurrences that increase our costs, such as increased prices of the components of our PAs, changes to labor costs or less favorable terms with third-party suppliers. There can be no assurance that we will not encounter such problems in the future.

If we are unable to manufacture PAs consistently and in sufficient quantities to meet anticipated customer demand, our business, financial condition, results of operations and prospects would be harmed. If we choose to scale the commercial production of our PA and increase our manufacturing capacity, we may encounter quality issues that could result in product defects, errors or recalls. Manufacturing delays related to quality control could negatively impact our ability to bring our PAs to market, harm our reputation and decrease our revenue. Any defects, errors or recalls could be expensive and generate negative publicity, which could impair our ability to market or sell our PAs, and adversely affect our results of operations. Our inability, or that of our suppliers, to find and retain the necessary qualified employees to achieve our manufacturing goals would also negatively impact our ability to meet customer needs.

In addition, we have historically sourced and for the foreseeable future will continue to source components for our PAs from a limited number of manufacturers and, in some cases, sole source manufacturers. With respect to our PA manufacturers, we are neither a major customer, nor do we have long-term supply contracts. These manufacturers may therefore give other customers' needs higher priority than ours, and we may not be able to obtain adequate supply in a timely manner or on commercially reasonable terms. While we are in the process of qualifying additional manufacturers, qualifications can take many months. If we were to lose one or more of our sole or single source manufacturers and suppliers, it would take significant time and effort to qualify alternative suppliers, if

available. Moreover, in the event that we transition to a new manufacturer, particularly from any of our single source manufacturers, doing so could be time-consuming and expensive, may result in interruptions in our ability to supply our products to the market and could affect the performance of our PAs, resulting in increased costs and negative customer perception and could have a material adverse effect on our business, financial condition and results of operations.

Our results of operations will be harmed if we are unable to accurately forecast customer demand for our products and manage our inventory.

To ensure adequate supply of our instruments, PAs and other products, we must forecast the inventory needs of our current and prospective customers and manufacture our products based on our estimates of future demand. Our ability to accurately forecast demand for our products could be negatively affected by many factors, many of which are beyond our control, including our failure to accurately manage our expansion strategy, product introductions or failures by competitors, an increase or decrease in customer demand for our products or for products of our competitors, the availability of capital for our customers, our failure to accurately forecast the success of our customers' therapeutic products, market acceptance of new products, changes in general market conditions, including as a result of the COVID-19 pandemic, seasonal demands, regulatory matters or strengthening or weakening of general economic conditions.

We seek to maintain sufficient levels of inventory of our instruments and other products to protect ourselves from supply interruptions. We rely in part on our commercial team and distributors to supply forecasts of anticipated product orders in their respective territories. If we fail to accurately estimate customer demand for our products, our inventory forecasts may be inaccurate, resulting in shortages or excesses of inventory. Inventory levels in excess of customer demand may result in inventory write-downs or write-offs, which could negatively impact our business, prospects, financial condition and results of operations. Conversely, if we underestimate customer demand for our products, we may not be able to deliver products in a timely manner or at all, and this could result in reduced revenue and damage to our reputation and customer relationships. In addition, if we experience a significant increase in demand, we may not have adequate manufacturing capacity to meet such demand, and additional supplies may not be available when required on terms that are acceptable to us, or at all, or suppliers may not be able to allocate sufficient capacity in order to meet our increased requirements, all of which would negatively affect our business, financial condition and results of operations. If we are unable to meet customer demand, we could lose our existing customers or lose our ability to acquire new customers, which would also negatively impact our business, financial condition and results of operations.

Risks Related to Our Product Sales

Our future success depends on our ability to develop and successfully introduce new and enhanced products that meet the needs of our customers.

Our offerings include products such as instruments, single-use disposables and the provision of support services to our customers with the goal to support the advancement of our customers' cell-therapies and/or drug discovery activities. We aim to collectively provide our customers with a single, integrated platform to discover, develop and manufacture safer, more targeted and increasingly complex cell-based therapies, designed for integration into customers' current good manufacturing practices environments. We cannot guarantee that the market for our current products will continue to generate significant or consistent demand. Demand for our current products could be significantly diminished by competitive technologies or products that replace them or render them obsolete or less desirable. Accordingly, we must continue to invest in research and development to develop competitive products. Restrictions resulting from the COVID-19 pandemic have had a negative impact on the work of some of our, and our customers', research and development programs due to limitations on in-person lab work.

Our future success depends on our ability to anticipate our customers' needs and develop new products and enhance current products to address those needs. Introduction of new products and product enhancements will require that we effectively transfer production processes from research and development to manufacturing and coordinate our efforts with those of our suppliers to achieve the desired level of production. If we fail to transfer production processes effectively, develop product

enhancements or introduce new products or enabling services in sufficient quantities to meet the needs of our customers, or effectively coordinate with our suppliers, our sales may be reduced and our business would be harmed.

The commercial success of all of our products will depend upon their acceptance by the life science and biopharmaceutical industries. Some of the products that we are developing are based upon new technologies or approaches. As a result, there can be no assurance that these new products, even if successfully developed and introduced, will be accepted by customers. If customers do not adopt our new products, services and technologies, our results of operations may suffer and, as a result, the market price of our common stock may decline.

If we are unable to successfully develop new products, adapt to rapid and significant technological change, respond to introductions of new products by competitors, make strategic and operational decisions to prioritize certain markets, technology offerings or partnerships, and develop and capitalize on markets, technologies or partnerships, our business could suffer.

We currently sell and license our products primarily in the cell therapy market, which is characterized by significant enhancements and evolving industry and regulatory standards and a high degree of regulatory scrutiny. As a result, our customers' needs are rapidly evolving. If we do not appropriately innovate and offer our customers comprehensive solutions and otherwise invest in new technologies, our offerings may become less desirable in the markets we serve, and our customers could move to new technologies offered by our competitors or make products themselves. Without the timely introduction of new instruments, single-use disposables software, services, enhancements and new product integrations with electroporation, our offerings may become less competitive over time, 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 products and applications to further drive adoption of our platform. To the extent we fail to timely introduce new and innovative products, offer enhancements to our existing products, adequately predict our customers' needs or fail to obtain desired levels of market acceptance, our business may suffer and our operating results could be adversely affected.

We believe our products have potential applications across a wide range of markets and we have targeted certain markets in which we believe our technology has significant advantages, or for which we believe we have a higher probability of success or significant revenue opportunity. For example, we are committed to developing our platform's applications within the life sciences market, including research, discovery, development, and manufacturing of next-generation autologous and allogeneic cell-based therapeutics, as well as drug discovery, including protein production for biological therapeutics, viral vectors, vaccines and for the discovery of small molecule drugs. 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 and uses for our technology. However, due to the significant resources required for the development of applications data for our products or 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 products or services and may divert resources away from better opportunities. Similarly, our potential decisions to delay, terminate or collaborate with third parties in respect of certain markets may subsequently also prove to be suboptimal and could cause us to miss valuable opportunities. In particular, if we are unable to successfully achieve on-going adoption of our electroporation platform technology, it could slow or stop our business growth and negatively impact 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 research and development programs will take time and considerable resources to develop, and may include improvements or changes to our current products, and we may not be able to complete development and commercialization of new or enhanced products on a timely basis, or at all. There can be no assurance that our research and development efforts will produce commercially viable products and solutions and before we can commercialize any new products, we will need to expend significant funds in order to, for example:

- conduct substantial research and development;
- in some cases, obtain necessary regulatory clearance or approval;
- further develop and scale our laboratory, engineering and manufacturing processes to accommodate different products;
- source and enter into agreements with new suppliers and manufacturers; and
- further develop and scale our infrastructure.

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 and failure to reliably demonstrate the advantages of the product.

Even if we are successful in developing new products, it will require us to make significant additional investments in marketing and selling resources to commercialize any such products. As a result, 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 systems are complex in design and may contain defects that are not detected until deployed by our customers, which could harm our reputation, increase our costs and reduce our sales. If our products do not perform as expected or the reliability of the technology on which our products are based is questioned, our operating results, reputation and business will suffer.

Our success depends on our ability to provide reliable, high-quality products that enable high performance cell engineering through flexible, efficient and cost-effective solutions. Our systems are complex in design and involve a highly complex and precise manufacturing process. As a result of the technological complexity of our systems, changes in our suppliers' manufacturing processes or the inadvertent use of defective materials by us or our suppliers could result in a product recall, or an adverse effect on our ability to achieve acceptable manufacturing quality and product reliability. To the extent that we do not achieve and maintain our projected quality or product reliability, our reputation, business, operating results, financial condition and customer relationships would be adversely affected.

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

- product recalls and replacement costs;
- loss of customers or orders;
- damage to our brand reputation;
- failure to attract new customers;
- diversion of development, engineering and manufacturing resources;
- regulatory actions by governmental authorities; and
- legal actions by our customers.

We believe that customers in our target markets are likely to be particularly sensitive to product defects and errors. Our reputation and the image of our products, services and technologies in our target markets may be impaired if our products or services fail to perform as expected. If our products do not perform, or are perceived to not have performed, as expected or favorably in comparison to competitive products, our operating results, reputation, and business will suffer, and we may also be subject to legal claims arising from product limitations, errors, or inaccuracies. Any of the foregoing could have an adverse effect on our business, financial condition and results of operations.

Although our products are tested in accordance with industry standards prior to shipment, defects or errors could nonetheless occur. For example, our instruments or PAs could fail or our partners could use our technology improperly and blame a failure on our systems, resulting in customer complaints and significant resources dedicated to finding the cause of the failure and/or developing a solution. Our operating results depend on our ability to execute and, when necessary, improve our quality management strategy and systems and our ability to effectively train and maintain our employees with

respect to quality management. A failure of our quality control systems could result in problems with facility operations or preparation or provision of products. In each case, such problems could arise for a variety of reasons, including equipment malfunction, failure to follow specific protocols and procedures, problems with raw materials or environmental factors and damage to, or loss of, manufacturing operations.

We provide a standard one-year warranty on sold instruments. Existing and future warranties place us at the risk of incurring future repair and/or replacement costs. Since a large portion of our revenue is derived from sales of our PAs, which can only be used when our instruments are functioning, if our instruments fail to function and our customers choose to use alternative cell engineering methods our financial condition and results of operations would suffer. In addition, even after any underlying concerns or problems are resolved, any lingering concerns in our target markets regarding our technology or any manufacturing defects or performance errors, either actual or simply perceived, in our products or services could continue to result in lost revenue, delayed market acceptance, damage to our reputation and claims against us.

If we are unable to successfully expand our commercial operations, including hiring additional qualified sales representatives, application scientists, engineers, scientific personnel, and customer support staff, our business may be adversely affected.

Our future sales will depend, in large part, on our ability to develop and substantially expand our sales and applications scientist infrastructure, particularly as we enter into new markets, rollout new products and platforms and manage inbound interest from new customers. We sell our products through our direct sales force and field application scientists located in North America, the United Kingdom and Europe, and have field application scientists located in the Asia-Pacific region where sales are currently managed by distributors. Our sales and marketing efforts are targeted at pharmaceutical and biotechnology companies and academic institutions focused on cell engineering and drug discovery. To continue driving adoption of our products and to support our global brand, we will need to further expand our field sales and application scientist infrastructure by hiring additional, highly qualified sales representatives, field application scientists, engineers and scientific personnel and customer support staff, in addition to increasing our marketing efforts.

Identifying and recruiting qualified personnel globally with sufficient industry experience and training them requires significant time, expense and attention. If we provide inadequate training, fail to increase our sales and marketing capabilities or fail to develop broad brand awareness in our target markets in a cost-effective manner, our business may be harmed. In addition, if our efforts to expand do not generate a corresponding increase in revenue or result in a decrease in our operating margin, our financial results will be adversely impacted. If we are unable to hire, develop and retain talented sales personnel or if new sales personnel are unable to achieve desired productivity levels in a reasonable period of time, we may not be able to realize the expected benefits of this investment or increase our revenue.

Additionally, our highly specialized application scientists and scientific personnel work closely with researchers, clinicians and current and prospective customers to optimize and implement cell engineering methods, processes and applications to meet their specific needs. Hiring these highly skilled application scientists and scientific personnel is competitive due to the limited number of people available with the necessary scientific and technical backgrounds and ability to understand our products at a technical level, and training such individuals requires significant time, expense and attention. Furthermore, we face intense competition in the labor market for such highly skilled specialists from competitors in our industry, our customers and companies in other industries, particularly because of the recent rapid growth in the cell therapy field. To effectively support current and potential customers, we will need to hire, maintain, train and grow globally the number of our applications scientists and add to our customer support staff. If we are unable to maintain, attract, train or retain the number of qualified support personnel that our business needs, our business and prospects will suffer.

If we are unable to expand or leverage the number of peer-reviewed articles published using data generated through the use of our products or otherwise increase brand awareness in our target markets, the demand for our products and our business may be adversely affected.

We rely on a significant base of peer-reviewed publications to showcase and validate the application of our technology in academic and clinical research settings. To date, there have been multiple peer-reviewed articles published, including in prominent journals, using data generated through the use of our

technology across a wide range of key scientific research areas, including research, discovery, development, and manufacturing of next-generation, cell-based therapeutics, as well as drug discovery including protein production for biological therapeutics, viral vectors, vaccines and small molecule discovery. We believe that expanding the number and breadth of these publications, and otherwise developing and maintaining awareness of our brand in our target markets in a cost-effective, manner is critical to achieving broad acceptance of our products and attracting new customers. Such publications and other brand promotion activities may not generate customer awareness or increase revenue and, even if they do, any increase in revenue may not offset the costs and expenses we incur in building our brand. If we fail to successfully promote, maintain and protect our brand, we may fail to attract or retain the customers necessary to realize a sufficient return on our brand-building efforts, or to achieve the reputation and widespread brand awareness that is critical for broad customer adoption of our products.

Risks Related to Our Regulatory Environment and Our Industry

Changes in tariffs or other government trade policies may materially adversely affect our business and results of operations, including by reducing demand for our products.

The imposition of tariffs and trade restrictions as a result of international trade disputes or changes in trade policies may adversely affect our sales and profitability. For example, in 2018 and 2019, the U.S. government imposed and proposed, among other actions, new or higher tariffs on specified imported products originating from China in response to what it characterized as unfair trade practices, and China responded by imposing and proposing new or higher tariffs on specified U.S. products. There can be no assurance that a broader trade agreement will be successfully negotiated between the United States and China to reduce or eliminate these tariffs. These tariffs, and the related geopolitical uncertainty between the United States and China, may cause decreased demand for our products or increase cost of components used in our products, which could have a material adverse effect on our business and results of operations. For example, certain of our foreign customers may respond to the imposition of tariffs or threat of tariffs on products we produce by delaying purchase orders or purchasing products from our competitors. Ongoing international trade disputes and changes in trade policies could also impact economic activity and lead to a general contraction of customer demand. In addition, tariffs on components that we may import from China or other nations will adversely affect our profitability unless we are able to exclude such components from the tariffs or we raise prices for our products, which may result in our products becoming less attractive relative to products offered by our competitors. Future actions or escalations by either the United States or China that affect trade relations may also negatively affect our business, or that of our suppliers or customers, and we cannot provide any assurances as to whether such actions will occur or the form that they may take. To the extent that our sales or profitability are negatively affected by any such tariffs or other trade actions, our business and results of operations may be materially adversely affected.

We are subject to governmental export controls that could impair our ability to compete in international markets due to licensing requirements and subject us to liability if we are not in compliance with applicable laws.

Exports of our products are subject to export controls and sanctions laws and regulations imposed by the U.S. government and administered by the U.S. Departments of State, Commerce, and Treasury. U.S. export control laws may require a license or other authorization to export products to certain destinations and end users. In addition, U.S. economic sanctions laws include restrictions or prohibitions on the sale or supply of certain products to U.S. embargoed or sanctioned countries, governments, persons and entities. Obtaining export licenses can be difficult, costly and time-consuming and we may not always be successful in obtaining necessary export licenses, and our failure to obtain required export approval for our products or limitations on our ability to export or sell our products imposed by export control or sanctions laws may harm our revenues and adversely affect our business, financial condition, and results of operations. Noncompliance with these laws could have negative consequences, including government investigations, penalties and reputational harm.

Compliance with global privacy and data security requirements could result in additional costs and liabilities to us or inhibit our ability to collect and process data globally, and the failure to comply with such requirements could subject us to significant fines and penalties, which may have a material adverse effect on our business, financial condition or results of operations.

The regulatory framework for the collection, use, safeguarding, retention, disclosure, transfer and other processing of personal data worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. We are, and will increasingly become as we seek to expand our business, subject to numerous foreign laws, regulations, rules and standards, as well as associated industry standards, policies and contractual or other obligations, relating to the collection, use, retention, security, disclosure, transfer and other processing of personal data in the jurisdictions in which we operate, collectively, Data Protection Requirements. If we fail, or are perceived to have failed, to address or comply with any such Data Protection Requirements, this could result in enforcement actions against us that could include investigations, fines, penalties, audits and inspections, additional reporting requirements and/or oversight, temporary or permanent bans on all or some processing of personal data or orders to destroy or not use personal data. Further, individuals or other relevant stakeholders could bring a variety of claims against us for our actual or perceived failure to comply with the Data Protection Requirements. Any of these events could have a material adverse effect on our reputation, business, or financial condition, and could lead to a loss of actual or prospective customers, collaborators or partners; interrupt or stop clinical trials; result in an inability to process personal data or to operate in certain jurisdictions; limit our ability to develop or commercialize our products; or require us to revise or restructure our operations.

For example, the European Union's General Data Protection Regulation, or GDPR, applies to any processing operations carried out in the context of the activities of an establishment in the EEA, as well as to any other processing operations relating to the offering of goods or services to individuals in the EEA and/or the monitoring of individuals' behavior in the EEA. Also, notwithstanding the United Kingdom's withdrawal from the EU, by operation of the so called "UK GDPR" (i.e., the GDPR as it continues to form part of the law of the United Kingdom by virtue of section 3 of the EU (Withdrawal) Act 2018 and as subsequently amended), or UK GDPR, the GDPR continues to apply in substantially equivalent form to processing operations carried out in the context of the activities of an establishment in the United Kingdom and any other processing relating to the offering of goods or services to individuals in the United Kingdom and/or monitoring of individuals' behavior in the United Kingdom. Therefore, reference to the GDPR herein also refers to the UK GDPR in the context of the United Kingdom, unless the context requires otherwise.

Furthermore, the GDPR provides that EEA Member States may introduce specific requirements related to the processing of "special categories of personal data", including the personal data related to health and genetic information, which we may process in connection with clinical trials or otherwise; as well as personal data related to criminal offences or convictions. In the United Kingdom, the UK Data Protection Act 2018 complements the UK GDPR in this regard. This fact may lead to greater divergence on the law that applies to the processing of such personal data across the EEA and/or United Kingdom, which may increase our costs and overall compliance risk.

The GDPR itself imposes stringent data privacy and security requirements on both processors and controllers of personal data, including personal data related to health and genetic information, which we may process in connection with clinical trials. In particular, the GDPR imposes several requirements relating to ensuring there is a lawful basis for processing personal data, extends the rights of individuals to whom the personal data relates, materially expands the definition of what is expressly noted to constitute personal data (including expanding the relevant definition to capture expressly the 'pseudonymized' or key-coded data that is commonly processed in a clinical trial-related context), requires additional disclosures about how personal data is to be used, imposes limitations on retention of personal data, imposes strict rules on the transfer of personal data out of the EEA to most third countries, creates mandatory data breach notification requirements in certain circumstances and establishes onerous new obligations on service providers, or processors, who process personal data simply on behalf of others.

A particular issue presented by certain European data protection laws, including the GDPR, is that they generally restrict transfers of personal data from Europe, including the EEA, the United Kingdom

and Switzerland, to the United States and most other countries unless specific safeguards to protect the transferred personal data have been implemented. A July 2020 decision of the European Union's highest court, and subsequent regulatory guidance, have made complying with these requirements even more challenging — particularly in respect of transfers of personal data to the United States. Certain previously available safeguards have been invalidated, and reliance on alternative and commonly used safeguards may be complex or not possible in certain circumstances, following a recent ruling of the Court of Justice of the European Union and subsequent regulatory guidance. If we are unable to implement a valid solution for personal data transfers from Europe, we will face increased exposure to regulatory actions, substantial fines and injunctions. Inability to import/export personal data from Europe may also: restrict our activities in Europe; limit our ability to collaborate with partners as well as other service providers, contractors and other companies in Europe; and/or require us to increase our processing capabilities within Europe at significant expense or otherwise cause us to change the geographical location or segregation of our relevant systems and operations — any or all of which could adversely affect our operations or financial results. Additionally, other countries outside of Europe have enacted or are considering enacting similar cross-border data transfer restrictions and laws requiring local data residency, which could increase the cost and complexity of delivering our services and operating our business.

Following the United Kingdom's withdrawal from the EU on January 31, 2020 and end of the post-Brexit transition period on December 31, 2020, as noted above, the United Kingdom has introduced the UK GDPR which currently makes the privacy regimes of the EEA and United Kingdom similar, though it is possible that either the EU, and consequently those further states that make up the remainder of the EEA, or United Kingdom could elect to change their approach and create differences in legal requirements and regulation in this area. This could expose us to two parallel regimes, each of which potentially authorizes similar fines and other potentially duplicative and/or divergent enforcement actions for the same violations. Furthermore, under the post-Brexit Trade and Cooperation Agreement between the EU and the United Kingdom, the United Kingdom and EU have agreed that personal data transfers to the United Kingdom from EEA Member States will not be treated as 'restricted transfers' to a non-EEA country for an initial period of up to six months from the end of the post-Brexit transition period. If the European Commission does not adopt an 'adequacy decision' in respect of the United Kingdom during this period, from that point onwards the United Kingdom will be an 'inadequate third country' under the GDPR and transfers of personal data from the EEA to the United Kingdom will require a valid 'transfer mechanism' (such as entry into the then-current form of the European Commission-issued Standard Contractual Clauses). In general terms, the relationship between the United Kingdom and the EEA in relation to certain aspects of data protection law remains unclear, and there will now be increasing scope for divergence in application, interpretation and enforcement of the data protection law as between the United Kingdom and EEA.

While we have taken steps to comply with the GDPR and implementing legislation in applicable Member States, and the UK GDPR and Data Protection Act 2018 in the United Kingdom, we cannot assure you that our efforts to achieve and remain in compliance have been and/or will continue to be, fully successful.

Failure to comply with the requirements of the GDPR and the applicable national data protection laws of the EEA Member States/the United Kingdom may result in fines of up to €20,000,000 / £17,500,000 or up to 4% of the total worldwide annual turnover of the preceding financial year, whichever is higher. In addition to administrative fines, a wide variety of other potential enforcement powers are available to competent authorities in respect of potential and suspected violations of the GDPR, including extensive audit and inspection rights, and powers to order temporary or permanent bans on all or some processing of personal data carried out by non-compliant actors.

All of these evolving compliance and operational requirements may require us to modify our data processing practices and policies, which in turn could distract management or divert resources from other initiatives and projects and may interrupt or delay our development activities. Any failure or perceived failure by us to comply with any applicable laws and regulations relating to data privacy and security could result in damage to our reputation, as well as proceedings or litigation by governmental agencies or other third parties, including class action privacy litigation in certain jurisdictions, which would

subject us to significant fines, sanctions, awards, penalties or judgments, all of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

We are subject to U.S. and certain foreign anti-corruption and anti-money laundering laws and regulations. We can face criminal liability and other serious consequences for violations, which can harm our business.

We are subject to anti-corruption and anti-money laundering laws and regulations, including Foreign Corrupt Practices Act, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, the USA PATRIOT Act, and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct or may in the future conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors and other third-party collaborators from authorizing, promising, offering, providing, soliciting or receiving, directly or indirectly, improper payments or anything else of value to or from persons in the public or private sector. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls.

In addition to selling our products internationally directly through our sales teams, we currently engage third parties outside of the United States, and may engage additional third parties outside of the United States, to sell our products internationally and to obtain necessary permits, licenses, patent registrations and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors and other third-party collaborators, even if we do not explicitly authorize or have actual knowledge of such activities. Any violations of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

Our customers who use our platform and we, if we develop a product, may be exposed to broadly applicable U.S. federal and state healthcare laws and regulations, including those relating to kickbacks and false claims, transparency, and health information privacy and security law. Failure to comply with such laws and regulations may result in substantial penalties.

Our customers who use our platform and we, if we develop a product, may be subject to broadly applicable healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we research, market, sell, and distribute our products. Such laws include federal and state anti-kickback laws, false claims laws, transparency laws, and health information privacy and security laws.

Violations of such laws may result in substantial criminal, civil and administrative penalties, including imprisonment, exclusion from participation in federal healthcare programs, such as Medicare and Medicaid, and significant fines, monetary penalties, forfeiture, disgorgement and damages, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings and the curtailment or restructuring of operations.

Additionally, in the United States and some foreign jurisdictions there have been, and continue to be, several legislative and regulatory changes and proposed reforms of the healthcare system in an effort to contain costs, improve quality, and expand access to care, including the proposed modification to some of the aforementioned laws. In the United States, there have been and continue to be a number of healthcare-related legislative initiatives that have significantly affected the healthcare industry. These reform initiatives may, among other things, result in modifications to the aforementioned laws and/or the implementation of new laws affecting the healthcare industry. Similarly, a significant trend in the healthcare industry is cost containment. Third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Our ability to commercialize any of our products successfully, and our customers and collaborators' ability to commercialize their products successfully, will depend in part on the extent to which coverage and adequate reimbursement for these products and will be available from third-party payors. As such, cost containment reform efforts may result in an adverse effect on our operations.

Our business is subject to environmental regulation and regulations relating to the protection of health and safety matters that could result in compliance costs. Any violation or liability under environmental laws or health and safety regulations could harm our business.

We are subject to environmental and safety laws and regulations governing the use, storage and disposal of hazardous substances or wastes and imposing liability for the cleanup of contamination from these substances. We handle hazardous substances in our manufacturing processes, and we could be liable for any improper use, storage, or disposal of such substances. We cannot completely eliminate the risk of contamination or injury from hazardous substances or wastes, and, in the event of such an incident, we could be held liable for any damages that result. In addition, we may be required to incur significant additional costs to comply with environmental laws and regulations in the future.

The Occupational Safety and Health Act of 1970, or OSHA, establishes certain employer responsibilities, including maintenance of a workplace free of recognized hazards likely to cause death or serious injury, compliance with standards promulgated by the Occupational Safety and Health Administration and various record keeping, disclosure and procedural requirements. Various OSHA standards may apply to our operations. We have incurred, and will continue to incur, capital and operating expenditures and other costs in the ordinary course of our business in complying with OSHA and other state and local laws and regulations.

The failure to comply with these regulations could result in fines by government authorities and payment of damages to private litigants, which could harm our business.

Our FDA Master File, and equivalent Technical Files in foreign jurisdictions, are an important part of our strategic offering which allows our partners to expedite their cellular therapies into and through the clinic. Delays in filing or obtaining (as applicable in a given jurisdiction), or our inability to obtain or retain, acceptance of such filings in individual countries could negatively impact the progress of our partners if they intend to run clinical trials in such countries, and as a result, could negatively affect our reputation and revenues or require disclosure of confidential information to our partners. Further, changes that we are required to make from time to time, or changes to regulations or negative data or adverse events for our partners, could impact references to our FDA Master File and Technical Files by our partners.

Providing our customers with an established regulatory path for use of our technology in the development of their therapeutics is an important value we provide to our customers. We have established and maintained an FDA Master File and equivalent Technical Files in certain other countries to provide that regulatory path. We may be unable in a timely manner, or at all, to provide similar filings in all countries where our customers desire to perform clinical trials, and regulators may refuse to accept such filings or may change their approach to such filings in a manner that weakens our ability to support our customers. If regulators at any point find that such filings have not been sufficiently maintained, or are insufficient to support clinical trials or drug approvals, as a result we may need to disclose confidential information to our partners to allow them to include such information in their filings. In addition, while we believe our FDA Master File and equivalent Technical Files have the potential to create certain efficiencies and reduce certain regulatory development risks for our customers, there is no guarantee that referencing our FDA Master File or Technical File, as applicable, will result in success in customers' submissions seeking authorization for clinical trials or marketing authorization. We cannot be certain that the FDA or foreign regulators will not require audits of and information on our ExPERT systems used in the clinic as our partners advance their cellular therapies from preclinical through clinical development toward marketing approval. Such additional information requests and audits of our facilities could result in delays in the development and potential regulatory approval of our partners' cellular therapy product candidates, affecting timing of milestone payments and our future ability to enter into new SPL agreements. Failure to adequately respond to any such regulatory requests could result in the regulator preventing our electroporation system from being utilized for a partner's cellular therapy. This could result in our partners not utilizing our ExPERT system for their other clinical programs and negatively impact our ability to enter into partnership agreements with other cellular therapy developers.

Risks Related to Our Financial Position and Capital Requirements

We may need additional funding beyond the proceeds of this offering and may be unable to raise capital when needed, which would force us to delay, reduce, eliminate or abandon our commercialization efforts or product development programs.

We cannot be certain that our anticipated cash flow from operations will be sufficient to meet all of our cash requirements or our growth plan. We intend to continue to make investments to support our business growth and may require additional funds to:

- expand the commercialization of our products and execute on our growth strategy;
- fund our operations and product development;
- finance the expansion into new international markets;
- expand our manufacturing capabilities;
- defend, in litigation or otherwise, any claims that we infringe, misappropriate or otherwise violate third-party patents or other intellectual property rights;
- commercialize our new products, if any such products receive regulatory clearance or approval for commercial sale; and
- acquire companies and in-license products or intellectual property.

We believe that the net proceeds from this offering, together with our existing cash balances and cash receipts generated from sales of our products, will be sufficient to meet our anticipated cash requirements for the foreseeable future. However, we may need additional funding sooner than expected and our business and future funding requirements can change unpredictably due to a variety of factors, including acquisitions, which could affect our funding needs or cash flows from operations. We may be unable to raise additional funds in a timely manner or on terms that are acceptable to us. If we do not have, or are not able to obtain, sufficient funds, we may have to delay the further development or commercialization of our products. We also may have to reduce marketing, customer support or other resources devoted to our products.

Our results of operations and liquidity needs could be materially and adversely affected by market fluctuations and economic downturn.

Our results of operations and liquidity could be materially and adversely affected by economic conditions generally, both in the United States and elsewhere around the world. Domestic and international equity and debt markets have experienced and may continue to experience heightened volatility and turmoil based on domestic and international economic policies, conditions and concerns. In the event the markets continue to remain volatile, our results of operations and liquidity could be adversely affected by those factors in many ways, including making it more difficult for us to raise funds if necessary, and our stock price may decline. In addition, we maintain significant amounts of cash and cash equivalents at one or more financial institutions, some of which may not be federally insured. If economic instability were to occur, we cannot be certain that we will not experience losses on these cash and cash equivalents.

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

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

- the level of demand for any of our products, which may vary significantly;
- the timing and cost of, and level of investment in, research, development, manufacturing, regulatory approval and commercialization activities relating to our products, which may change from time to time;
- the size, seasonality and customer mix of the cell engineering market;
- the start, milestone attainment and completion of programs in which our platform is utilized;
- sales and marketing efforts and expenses;
- the rate at which we grow our sales force and the speed at which newly-hired salespeople become effective;

- changes in the productivity of our sales force;
- positive or negative coverage in the media or publications of our products or competitive products;
- the cost of manufacturing our products, which may vary depending on the quantity of production and the terms of our arrangements with our suppliers;
- the degree of competition in our industry and any change in the competitive landscape of our industry, including the introduction of new products or enhancements or technologies by us or others in the cell engineering market and competition-related pricing pressures;
- changes in governmental regulations or in the status of our regulatory approvals or applications;
- future accounting pronouncements or changes in our accounting policies;
- disruptions to our business and operations or to the business and operations of our suppliers, distributors, and other third parties with whom we conduct business resulting from the COVID-19 pandemic or other widespread health crises;
- future global financial crises and economic downturns, including those caused by widespread public health crises; and
- general market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

The cumulative effects 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. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any guidance we may provide, or if the guidance we provide is below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated guidance we may provide.

Our ability to use our net operating losses, business tax credits and similar tax attributes to offset future taxable income or taxes may be subject to certain limitations.

As of December 31, 2020, we had U.S. federal and state net operating loss carryforwards of $57.8 million and $43.0 million, respectively, and federal research credit carryforwards of $0.9 million. Under current law, U.S. federal net operating losses incurred in tax years beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such federal net operating losses in tax years beginning after December 31, 2020 is limited to 80% of taxable income. It is uncertain if and to what extent various states will conform to federal tax laws. In addition, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, or the IRC, and corresponding provisions of state law, if a corporation undergoes an “ownership change,” which generally is defined as a greater than 50% change, by value, in its equity ownership over a three-year period, the corporation’s ability to use its pre-change net operating loss and tax credit carryforwards to offset its post-change income or taxes may be limited. We have experienced ownership changes in the past and we may experience additional ownership changes in the future as a result of subsequent shifts in our stock ownership, including pursuant to this offering, some of which may be outside of our control. If an ownership change occurs and our ability to use our net operating loss carryforwards is materially limited, it would harm our future operating results by effectively increasing our future tax obligations. Similar provisions of state law also may apply to limit the use of our state net operating loss carryforwards. In addition, at the state level, there may be periods during which the use of net operating losses is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed.

Risks Related to Our Operations

A pandemic, epidemic or outbreak of an infectious disease in the United States or worldwide could adversely affect our business and the businesses of our partners. The COVID-19 pandemic has had and could continue to have an adverse impact on our business, operations, and the markets and communities in which we, our partners, and customers operate.

If a pandemic, epidemic or outbreak of an infectious disease occurs in the United States or worldwide, our business may be adversely affected, by, among other things, disrupting the research

and development activities of our customers, disrupting the development of our collaboration partners' product candidates, disrupting our ability to enter into new collaborations with potential partners in a timely manner, causing disruptions in the operations of our third-party manufacturing organizations upon whom we rely for the production and supply of our products, and causing other disruptions to our operations. The COVID-19 pandemic has caused general business disruption worldwide. As a result of the COVID-19 pandemic, we temporarily closed our headquarters and other offices, and our employees and contractors who are able to perform their duties remotely continue to do so. We have also implemented travel restrictions and other significant changes in how we operate our business. The operations of our partners and customers have likewise been altered. While the duration and extent of the COVID-19 pandemic depends on future developments and potential resurgences that cannot be accurately predicted at this time, such as the extent and effectiveness of containment actions and available vaccines, the pandemic has had an adverse effect on the global economy and the ultimate societal and economic impact of the COVID-19 pandemic remains unknown. The potential impact and duration of the COVID-19 pandemic on the global economy and our business are difficult to assess or predict. Potential impacts, some of which we have already experienced, include:

- our customer prospects and our existing customers may experience slowdowns in their businesses, and our academic institution customers may experience decreases in government funding of research and development, which in turn may result in reduced demand for our products, lengthening of sales cycles, loss of customers, difficulties in collections, and inaccurate inventory forecasting;
- limitations on our business operations by local, state, provincial and/or federal governments that could impact our ability to sell products to customers, and visit customers for process optimization of their cellular therapies;
- delays in negotiations with partners and potential partners;
- interruption of or delays in receiving supplies from the third parties we rely on to manufacture components to our products, which may impair our ability to sell our products;
- interruption of or delays in installation of our products for our customers and partners;
- interruption of or delays in the shipments of purchased products to customers or to our distribution partners;
- decreased employee productivity and morale, with increased employee attrition and risk of a cyberattack resulting from our employees working from home;
- disruptions and significant costs to our growth planning, such as for facilities and international expansion;
- costs in fully returning to work from our facilities around the world, including changes to the workplace, such as space planning, food service and amenities;
- legal liability for safe workplace claims;
- loss of critical vendors or third-party partners, which may go out of business; and
- continued cancellation of in-person marketing events, including industry conferences, and prolonged delays in our ability to reschedule or conduct in-person marketing events and other sales and marketing activities.

The impact of any of the foregoing, individually or collectively, could adversely affect our business, financial condition, and results of operations. Moreover, to the extent the COVID-19 pandemic adversely affects our business, financial condition, and results of operations, it may also have the effect of heightening many of the other risks described in this "Risk Factors" section.

Significant disruptions of information technology systems or breaches of information security could adversely affect our business, results of operations and financial condition.

We rely to a large extent upon sophisticated information technology systems to operate our business. In the ordinary course of business, we collect, store and transmit large amounts of information (including but not limited to, confidential information, employee data, customer information, personal data and intellectual property). We also have outsourced significant elements of our operations to third parties, including significant elements of our information technology infrastructure and, as a result, we are managing many independent vendor relationships with third parties who may or could have access to our information. The size and complexity of our information security systems, and those of our

third-party vendors with whom we contract (and the large amounts of information that is present on them), make such systems potentially vulnerable to service interruptions or to security breaches from inadvertent or intentional actions by our employees or vendors, or from malicious attacks by third parties.

Cyberattacks could include the deployment of harmful malware, ransomware, denial-of-service attacks, social engineering and other means to affect service reliability and threaten the confidentiality, integrity and availability of information. Cyberattacks also could include phishing attempts or e-mail fraud to cause unauthorized payments or information to be transmitted to an unintended recipient, or to permit unauthorized access to systems. Such attacks are of ever-increasing levels of sophistication and are made by groups and individuals with a wide range of motives (including, but not limited to, industrial espionage and market manipulation) and expertise. While we have invested significantly in the protection of data and information technology, there can be no assurance that our efforts will prevent service interruptions or security breaches. Any cyberattack or security incident that leads to unauthorized access, acquisition, use or disclosure of personal or proprietary information could harm our reputation, cause us not to comply with U.S. federal and/or state, or non-U.S., data breach notification laws, or our contractual obligations, and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information. In addition, we could be subject to regulatory actions and/or claims made by individuals and groups in private litigation related to data collection and use practices and other data privacy laws and regulations, including claims for misuse or inappropriate disclosure of data, as well as unfair or deceptive practices. Although we have cyber-insurance coverage that may cover certain events described above, this insurance is subject to deductibles and coverage limitations and we may not be able to maintain this insurance. Also, it is possible that claims could exceed the limits of our coverage. Any interruption or breach in our systems could adversely affect our business operations and/or result in the loss of information, including confidential information, employee data, customer information, personal information or intellectual property, and could result in financial, legal, business and reputational harm to us or allow third parties to gain material, inside information that they use to trade in our securities.

We are highly dependent on our senior management team and key personnel and our business could be harmed if we are unable to attract and retain personnel necessary for our success.

We are highly dependent on our senior management team and key personnel. Our success will depend on our ability to retain senior management and to attract and retain qualified personnel in the future, including sales, marketing, scientific and technical professionals, and to integrate current and additional personnel in all departments. The loss of members of our senior management, sales, marketing, scientific and technical professionals could result in lower than expected sales and delays in product development. If we are not successful in attracting and retaining highly qualified personnel, it would have a negative impact on our business, financial condition and results of operations.

Competition for skilled personnel in our market is intense and may limit our ability to hire and retain highly qualified personnel on acceptable terms, or at all. To induce valuable employees to remain at our company, in addition to salary and cash incentives, we have issued, and will in the future issue, equity awards that vest over time. The value to employees of equity awards that vest over time may be significantly affected by movements in our stock price that are beyond our control and may at any time be insufficient to counteract more lucrative offers from other companies. Despite our efforts to retain valuable employees, they may terminate their employment with us on short notice. Our employment arrangements with our employees provide for at-will employment, which means that any of our employees could leave our employment at any time, with or without notice.

Many of the other cell engineering or therapeutic development companies that we compete against for qualified personnel have greater financial and other resources, different risk profiles and a longer history in the industry than we do. They may also provide more diverse opportunities, better chances for career advancement and higher compensation. Some of these characteristics are more appealing to high-quality candidates than what we can offer. Further, if we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached legal obligations, resulting in a diversion of our time and resources and, potentially, damages.

In addition, job candidates and existing employees often consider the value of the equity awards they receive in connection with their employment. If the perceived benefits of our stock awards decline, either because we are a public company or for other reasons, it may harm our ability to recruit and retain highly skilled employees. Many of our employees have become or will soon become vested in a substantial amount of their equity awards. Our employees may be more likely to leave us if the equity they own have significantly appreciated in value relative to the original purchase prices of the shares, or if the exercise prices of the options that they hold are significantly below the market price of our common stock, particularly after the expiration of the lock-up agreements described herein.

Our future success also depends on our ability to continue to attract and retain additional executive officers and other key employees as we expand our business and operations. If we fail to attract new personnel or fail to retain and motivate our current personnel, it will negatively affect our business, financial condition and results of operations.

We have increased the size of our organization and expect to further increase it in the future, and we may experience difficulties in managing our growth. If we are unable to manage the anticipated growth of our business, our future revenue and operating results may be harmed.

As of March 31, 2021, we had 65 full-time employees. As our sales and marketing strategies develop and as we transition into operating as a public company on a U.S. exchange, we expect to need additional managerial, operational, sales, marketing, financial and other personnel. Future growth would impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining and motivating additional employees;
- managing our internal development efforts effectively, while complying with our contractual obligations to contractors and other third parties; and
- improving our operational, financial and management controls, reporting systems and procedures.

Since our inception, we have experienced growth and anticipate further growth in our business operations both inside and outside the United States. This future growth could strain our organizational, administrative and operational infrastructure, including quality control, operational, finance, customer service and sales organization management. We expect to continue to increase our headcount and to hire more specialized personnel in the future as we grow our business. We will need to continue to hire, train and manage additional qualified scientists, engineers, technical personnel and sales and marketing staff and improve and maintain our products to properly manage our growth. Rapid expansion in personnel could mean that less experienced people develop, market and sell our products, which could result in inefficiencies and unanticipated costs, reduced quality and disruptions to our operations. 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 employees, our business may be harmed. We may not be able to maintain the quality or expected turnaround times of our products or 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. The time and resources required to implement these new systems and procedures is uncertain, and failure to complete this in a timely, efficient and effective manner could adversely affect our operations.

Our officers, employees, independent contractors, consultants and commercial partners may engage in misconduct or activities that are improper under other laws and regulations, or make significant errors, which would create liability for us.

We are exposed to the risk that our officers, employees, independent contractors, consultants, commercial partners, suppliers, and third-party distributors may engage in fraudulent conduct or other illegal activity. Misconduct by these parties could include intentional, reckless or negligent conduct or disclosure of unauthorized activities to us. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Misconduct by these parties could also involve the improper use of individually identifiable information, which could result in regulatory sanctions and serious harm to our reputation. While we have programs in place to address this conduct, it is not always possible to identify and deter misconduct, and the precautions we take to detect and prevent this activity may not

be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant civil, criminal, and administrative penalties, including without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, and the curtailment or restructuring of our operations.

If we were to be sued for product liability, we could face substantial liabilities that exceed our resources, limit sales of our existing products and limit commercialization of any products that we may develop.

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

- substantial litigation costs;
- distraction of management's attention from our primary business;
- the inability to commercialize our products or new products;
- decreased demand for our products;
- damage to our business reputation;
- product recalls or withdrawals from the market;
- loss of sales; or
- termination of existing agreements by our partners and potential partners failing to partner with us.

We maintain product liability insurance, but this insurance may not fully protect us from the financial impact of defending against product liability claims. Any product liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage in the future.

While we may attempt to manage our product liability exposure by proactively recalling or withdrawing from the market any defective products, any recall or market withdrawal of our products may delay the supply of those products to our customers and may impact our reputation. We may not be successful in initiating appropriate market recall or market withdrawal efforts that may be required in the future and these efforts may not have the intended effect of preventing product malfunctions and the accompanying product liability that may result. Such recalls and withdrawals may also harm our reputation with customers, which could negatively affect our business, financial condition and results of operations.

If our customers fail to safely and appropriately use our products, or if we are unable to train our customers on the safe and appropriate use of our products, our reputation may be negatively impacted and we may be unable to achieve our expected sales, growth or profitability.

An important part of our sales process includes training our customers on how to safely and appropriately use our products. If our customers are not properly trained, they may misuse or ineffectively use our products. Any improper use of our products may result in unsatisfactory outcomes, negative publicity or lawsuits against us, any of which could harm our reputation and affect future product sales. Even if our products are used improperly by customers, we may face reputational damage if our products are associated with negative outcomes or injuries. Damage to our reputation could make it more difficult for us to sell our products and enter into new partnerships. Accordingly, if our customers fail to safely and appropriately use our products or if we are unable to train our customers on the safe and appropriate use of our products, our reputation may be negatively impacted and we may be unable to achieve our expected sales, growth or profitability.

Litigation and other legal proceedings may harm our business.

While we have never been involved in legal proceedings relating to patent and other intellectual property matters, product liability claims, employee claims, tort or contract claims, federal or state regulatory investigations, securities class actions and other legal proceedings or investigations, we may become involved in such legal proceedings which could have a negative impact on our reputation, business and financial condition and divert the attention of our management from the operation of our business. Litigation is inherently unpredictable and can result in excessive or unanticipated verdicts and/or injunctive relief that affect how we operate our business. We could incur judgments or enter into settlements of claims for monetary damages or for agreements to change the way we operate our business, or both. There may be an increase in the scope of these matters or there may be additional lawsuits, claims, proceedings or investigations in the future, which could harm our business, financial condition and results of operations. Adverse publicity about regulatory or legal action against us could damage our reputation and brand image, undermine our customers' confidence and reduce long-term demand for our products, even if the regulatory or legal action is unfounded or not material to our operations.

Business disruptions could seriously harm our future revenue and financial condition and increase our costs and expenses.

Our operations (including our manufacturing operations) and the operations of our distribution partners could be subject to earthquakes, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, fires, extreme weather conditions, medical epidemics and pandemics, including the COVID-19 pandemic, and other natural or man-made disasters or business interruptions, for which we are predominantly self-insured. Our ability to obtain components for our products could be disrupted if the operations of our suppliers were affected by a man-made or natural disaster or other business interruption, including interruptions related to the COVID-19 pandemic. The occurrence of any of these business disruptions could seriously harm our operations and financial condition and increase our costs and expenses.

We manufacture our ExPERT instruments at our manufacturing facilities located in Maryland, and we rely on various suppliers in the United States. Should our manufacturing facilities or the facilities of our suppliers be damaged or destroyed by natural or man-made disasters, such as earthquakes, fires or other events, or should events such as political unrest unfold, it could take months to relocate or rebuild, during which time our manufacturing and the operations of our suppliers would cease or be delayed and our products may be unavailable. The inability to perform our manufacturing activities, combined with our limited inventory of materials and components and manufactured products, or the inability of our suppliers to continue their operations, may cause us to be unable to meet customer demand or harm our reputation, and we may be unable to reestablish relationships with such customers in the future. Consequently, a catastrophic event or business interruption at our manufacturing facilities or at our suppliers' facilities could harm 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. Although we have general and product liability insurance that we believe is appropriate, this insurance is subject to deductibles and coverage limitations. Our current product liability insurance may not continue to be available to us on acceptable terms, if at all, and, if available, coverage may not be adequate to protect us against any future product liability claims. If we are unable to obtain insurance at an acceptable cost or on acceptable terms or otherwise protect against potential product liability claims, we could be exposed to significant liabilities. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could negatively affect our business, financial condition and results of operations. We do not carry specific hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended. Although we carry cyber insurance, the coverage may not be sufficient to cover our losses in the event of a security

incident that results in any data loss, deletion or destruction; unauthorized access to, or acquisition, disclosure or exposure of information; or compromise related to the security, confidentiality, integrity or availability of information technology, software, services, communications or data.

We also expect that operating as a public company in the United States will make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified people to serve on our board of directors, on our board committees or as executive officers. We do not know, however, if we will be able to maintain existing insurance with adequate levels of coverage. Any significant uninsured liability may require us to pay substantial amounts, which would negatively affect our business, financial condition and results of operations.

The majority of our operations are currently conducted at a single location and any disruption at our facility could negatively impact our operations and increase our expenses.

Our headquarters in Maryland contains most of our corporate and administrative functions, the majority of our research, and all of our in-house manufacturing, inventory and distribution functions. A natural or other disaster, such as a fire or flood, could cause substantial delays in our operations, damage or destroy our manufacturing equipment or inventory, and cause us to incur additional expenses. The insurance we maintain against fires, floods and other natural disasters may not be adequate to cover our losses in any particular case. With or without insurance, damage to our manufacturing facility or our other property, or to any of our suppliers, due to fire, flood or other natural disaster or casualty event may have a material adverse effect on our business, financial condition and results of operations.

We may face exposure to foreign currency exchange rate fluctuations.

Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the Euro and the British pound. We expect our non-U.S. operations to continue to grow in the near term and we are continually monitoring our foreign currency exposure to determine if we should consider a hedging program. Today, our non-U.S. contracts are generally denominated in U.S. dollars, while our non-U.S. operating expenses are often denominated in local currencies. Additionally, as we expand our non-U.S. operations, a larger portion of our operating expenses may be denominated in local currencies. Therefore, increases in the value of the U.S. dollar and decreases in the value of foreign currencies could result in the dollar equivalent of our revenue being lower, which would negatively affect our reported results of operations.

Risks Related to our Intellectual Property

Our ability to compete and the success of our business could be jeopardized if we are unable to protect our intellectual property adequately.

Our success depends to a degree upon the protection of our proprietary technology and obtaining, maintaining and enforcing our intellectual property and other proprietary rights. We rely on a combination of trade secrets, patents, copyrights, trademarks and contractual provisions with employees, contract manufacturers, consultants, customers and other third parties to establish and protect our intellectual property rights, all of which offer only limited protection. Other parties may not comply with the terms of their agreements with us, and we may not be able to enforce our rights adequately against these parties.

Although we enter into confidentiality, assignments of proprietary rights and license agreements, as appropriate, with our employees and third parties, including our contract manufacturers, contract engineering firms, and generally control access to and distribution of our technologies, documentation and other proprietary information, we cannot be certain that the steps we take to prevent unauthorized use of our intellectual property rights are sufficient to prevent their misappropriation, particularly in foreign countries where laws or law enforcement practices may not protect our intellectual property rights as fully as in the United States. In addition, we rely on trade secrets and know-how to protect certain of our technologies, especially where we do not believe patent protection is appropriate or obtainable. However, trade secrets and know-how are difficult to protect, as trade secrets do not protect against independent development of a technology by third parties. Although we use reasonable efforts to protect our trade secrets and know-how, our employees and third parties to whom our trade secrets

and know-how are disclosed may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third-party entity illegally obtained and is using any of our trade secrets is expensive and time-consuming, and the outcome is unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

If competitors are able to use our technology, our ability to compete effectively could be harmed. For example, if a competitor were to gain use of certain of our proprietary technology, it might be able to develop and manufacture similarly designed solutions at a reduced cost, which would result in a decrease in demand for our products.

Furthermore, we have adopted a strategy of seeking limited patent protection both in the United States and in foreign countries with respect to the technologies used in or relating to our products. Although we generally apply for patents in those countries where we expect to have material sales of our patented products, we may not accurately predict all of the countries where patent protection will ultimately be desirable. If we fail to timely file a patent application in any such country, we may be precluded from doing so at a later date. We do not know whether any of our pending patent applications will result in the issuance of patents or whether the examination process will require us to narrow our claims, and even if patents are issued, they may be contested, circumvented, modified, revoked, found to be unenforceable, or invalidated over the course of our business. Moreover, the rights granted under any issued patents may not provide us with proprietary protection, barriers to entry or competitive advantages, and, as with any technology, competitors may be able to develop and obtain patents for technologies that are similar to or superior to our technologies. If that happens, we may need to license these technologies and we may not be able to obtain licenses on reasonable terms, if at all, thereby causing great harm to our business. Additionally, the determination that a patent application or patent claim meets all of the requirements for patentability is a subjective determination based on the application of law and jurisprudence. The ultimate determination by the United States Patent and Trademark Office, or the USPTO, or by a court or other trier of fact in the United States, or corresponding foreign national patent offices or courts, on whether a claim meets all requirements of patentability cannot be assured. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or patent applications, in our licensed patents or patent applications or in third-party patents. Moreover, patents have a limited term, and certain of our patents have recently or will expire in the near future.

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

Legal proceedings to assert our intellectual property rights could be costly and could impair our operations.

Even in those instances where we have determined that another party is breaching our intellectual property and other proprietary rights, enforcing our legal rights with respect to such breach may be expensive and difficult. We may need to engage in litigation to enforce or defend our intellectual property and other proprietary rights, which could result in substantial costs and diversion of management resources. Further, many of our current and potential competitors are substantially larger than we are and have the ability to dedicate substantially greater resources to defending any claims by us that they have breached our intellectual property rights. If we are unsuccessful in enforcing our intellectual property rights, it could have a material adverse effect on our business, results of operations and financial condition.

We may be sued by third parties for alleged infringement of their proprietary rights, which could be costly, time-consuming and limit our ability to use certain technologies in the future or to develop future products.

We may be subject to claims that our technologies infringe upon the intellectual property or other proprietary rights of third parties. Any claims, even those without merit, could be time-consuming and

expensive, and could divert our management's attention away from the execution of our business plan. Moreover, any settlement or adverse judgment resulting from the claim could require us to pay substantial amounts or obtain a license to continue to use the technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology. There can be no assurance that we would be able to obtain a license from the third party asserting the claim on commercially reasonable terms, if at all, that we would be able to develop alternative technology on a timely basis, if at all, or that we would be able to obtain a license to use a suitable alternative technology to permit us to continue offering, and our customers to continue using, our affected product.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. We cannot predict how this and future decisions by the courts, the U.S. Congress or the USPTO may impact the value of our patents. Any similar adverse changes in the patent laws of other jurisdictions could also harm our business, financial condition, results of operations and prospects.

We may be obligated to disclose our proprietary technology to our customers, which may limit our ability to protect our intellectual property.

Certain customer agreements contain provisions permitting the customer to become a party to, or a beneficiary of, a technology escrow agreement under which we place proprietary know-how and source code for our products in escrow with a third party. Under these escrow agreements, the know-how and source code to the applicable product may be released to the customer, typically for its use to further develop, maintain, modify and enhance the product, upon the occurrence of specified events, such as our filing for bankruptcy and breaching our representations, warranties or covenants of our agreements with our customers. Disclosing this know-how and source code may limit the intellectual property protection we can obtain or maintain for that know-how or source code or the products embodying or containing that know-how or source code and may facilitate intellectual property infringement claims against us. Each of these could harm our business, results of operations and financial condition.

Risks Related to This Offering and Our Common Stock

There has been no prior market for our common stock in the United States and an active trading market for our common stock may not develop in the United States.

Prior to this offering, there has been no public market for shares of our common stock in the United States. However, since 2016, our common stock has traded on AIM under the symbol "MXCT," as well as other symbols, of which "MXCN" is currently active, and following this offering will continue to trade on AIM. We cannot predict when or whether investor interest in our common stock might lead to an increase in its market price or the development of a more active trading market. The U.S. initial public offering price for our common stock was determined through negotiations with the underwriters based on a number of factors, including the historic trading prices of our common stock on AIM, that might not be indicative of prices that will prevail in the trading market for our common stock in the United States. While our common stock has been approved for listing on the Nasdaq Global Select Market, an active trading market for our shares in the United States may never develop or be sustained following this offering. If an active market for our common stock does not develop, it may be difficult to sell shares purchased in this offering without depressing the market price for the shares, or at all.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of listed companies. Stock prices of many newly public companies have fluctuated in a manner unrelated or disproportionate to the operating performance of those companies. In the past, stockholders have instituted securities class action litigation following periods of market volatility. If we were to become involved in securities litigation, it could subject us to substantial costs, divert resources and the attention of management from our business and adversely affect our business, financial condition and results of operations.

Upon the completion of this offering, our common stock will be traded on two separate stock markets and investors seeking to take advantage of price differences between such markets may create unexpected volatility in our share price; in addition, investors may not be able to easily move shares for trading between such markets.

Our shares of common stock are already admitted to and traded on AIM and have been approved for listing on The Nasdaq Global Select Market. Price levels for our common stock may fluctuate significantly on either market, independent of our common stock price on the other market. Investors could seek to sell or buy our common stock to take advantage of any price differences between the two markets through a practice referred to as arbitrage. Any arbitrage activity could create unexpected volatility in both our common stock prices on either exchange and the volumes of shares of our common stock available for trading on either exchange. In addition, holders of common stock on either market will not be immediately able to transfer such common stock for trading on the other market without effecting necessary procedures with our transfer agent. This could result in time delays and additional cost for our stockholders. Further, if we are unable to continue to meet the regulatory requirements for admission to AIM or listing on the Nasdaq Global Select Market, we may lose our admission to AIM or listing on the Nasdaq Global Select Market, which could impair the liquidity of shares of our common stock. Investors whose source of funds for the purchase of shares of our common stock is denominated in a currency other than U.S. Dollars may also be adversely affected by fluctuations in the exchange rate between such currency and the U.S. Dollar.

Securities traded on AIM may carry a higher risk than securities traded on other exchanges, which may impact the value of your investment.

Our shares of common stock are currently traded on AIM. Investment in equities traded on AIM is sometimes perceived to carry a higher risk than an investment in equities quoted on exchanges with more stringent listing requirements, such as the main market of the London Stock Exchange, New York Stock Exchange or Nasdaq. This is because AIM is less heavily regulated, imposes less stringent corporate governance and ongoing reporting requirements than those other exchanges. In addition, AIM requires only half-yearly, rather than quarterly, financial reporting. You should be aware that the value of our shares of common stock may be influenced by many factors, some of which may be specific to us and some of which may affect AIM companies generally, including the depth and liquidity of the market, our performance, a large or small volume of trading in our shares of common stock, legislative changes and general economic, political or regulatory conditions, and that the prices may be volatile and subject to extensive fluctuations. Therefore, the current market price of our shares of common stock may not reflect the underlying value of our company.

The price of our common stock is likely to be volatile and may fluctuate due to factors beyond our control.

The market price of our common stock may be highly volatile and may fluctuate or decline substantially as a result of a variety of factors, some of which are beyond our control, including:

- actual or anticipated fluctuations in our financial condition or results of operations;
- variance in our financial performance from expectations of securities analysts;
- changes in our projected operating and financial results;
- announcements by us or our competitors of significant business developments, acquisitions, or new offerings;
- announcements by our partners on clinical development delays for products being enabled by our technology;
- announcements or concerns regarding real or perceived safety or efficacy issues with our products or similar products of our competitors;
- adoption of new regulations applicable to our industry or the expectations concerning future regulatory developments;
- our involvement in litigation;
- future sales of our common stock by us or our stockholders, as well as the anticipation of lock-up releases;
- changes in senior management or key personnel;
- the trading volume of our common stock;

- changes in the anticipated future size and growth rate of our market; and
- general economic and market conditions.

Broad market and industry fluctuations, as well as general economic, political, regulatory and market conditions, may also negatively impact the market price of our common stock.

If securities or industry analysts do not publish research, or publish inaccurate or unfavorable research, about our business, the price of our common stock and our trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. If no or too few securities or industry analysts commence coverage of us, the trading price for our common stock could be negatively affected. In the event securities or industry analysts initiate coverage, if one or more of the analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business, the price of our common stock could decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause the price of our common stock and trading volume to decline.

We will incur increased costs as a result of operating as a U.S.-listed public company, and our management and board of directors will be required to devote substantial time to new compliance initiatives and corporate governance practices.

As a U.S.-listed public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company or as a company with shares traded only on AIM. The Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the listing requirements of the Nasdaq Global Select Market, and other applicable securities rules and regulations impose various requirements on public companies, including the establishment and maintenance of effective disclosure and financial controls and corporate governance practices. In addition, our shares of common stock are currently traded on AIM and will continue to be subject to AIM's admission and compliance requirements, which differ in many respects from the requirements of the Nasdaq Global Select Market and U.S. securities rules.

Our management, board of directors and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance, which in turn could make it more difficult for us to attract and retain qualified members of our management and board of directors. However, these rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices.

Future sales of our common stock in the public market could cause our share price to fall.

Sales of a substantial number of shares of our common stock in the public market after this offering, or the perception that these sales might occur, could depress the market price of our common stock and could impair our ability to raise capital through the sale of additional equity securities. Upon the closing of this offering, we will have 98,189,559 shares of common stock outstanding, assuming no exercise of outstanding options or the underwriters' option to purchase additional shares.

All of the shares of common stock sold in this offering will be freely tradable without restrictions or further registration under the Securities Act of 1933, or the Securities Act, as amended, except for any shares held by our affiliates as defined in Rule 144 under the Securities Act. A total of 1,487,486 shares of common stock outstanding immediately after this offering, or 1.5%, will be restricted as a result of securities laws, lock-up agreements or other contractual restrictions that restrict transfers for 90 days after the date of this prospectus. Of the remaining shares outstanding, 96,372,073 shares will remain freely tradeable and 330,000 shares will become freely tradeable after the distribution compliance period pursuant to Regulation S under the Securities Act.

Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated and William Blair & Company, L.L.C. may, in their sole discretion, release all or some portion of the shares subject to lock-up agreements with the underwriters prior to expiration of the lock-up period. See “Shares Eligible for Future Sale.”

We intend to file a registration statement on Form S-8 under the Securities Act to register shares for issuance under our equity incentive plans, including our Long-Term Incentive Plan, or LTIP, 2021 Equity Incentive Plan and employee stock purchase plan. Each of these plans provides for automatic increases in the shares reserved for issuance under the plan which could result in additional dilution to our stockholders. Once we register these shares, they can be freely sold in the public market upon issuance and vesting, subject to any lock-up restrictions of the holder.

Because we do not expect to pay dividends on our common stock in the foreseeable future, capital appreciation, if any, would be your sole source of gain.

We have never declared or paid any dividends on our common stock. We currently anticipate that we will retain 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. The decision to pay future dividends to stockholders will be at the discretion of our board of directors after taking into account various factors including our business prospects, cash requirements, financial performance and new product development. Accordingly, investors cannot rely on dividend income from our common stock and any returns on an investment in our common stock will likely depend entirely upon any future appreciation in the price of our common stock.

If you purchase common stock in this offering, you will suffer immediate dilution of your investment.

The initial public offering price of our common stock is substantially higher than the net tangible book value per share. Therefore, if you purchase common stock in this offering, you will pay a price per share that substantially exceeds the book value of our tangible assets, after subtracting our liabilities, after this offering. Based on the initial public offering price of $13.00 per share, you will experience immediate dilution of $10.54 per share, representing the difference between our net tangible book value per share after giving effect to this offering and the initial public offering price. In addition, purchasers of common stock in this offering will have contributed approximately 55.3% of the aggregate price paid by all purchasers of our common stock in the last five years but will own only approximately 19.6% of the shares of our common stock purchased in the last five years. To the extent options are exercised, you will incur further dilution. See the section of this prospectus titled “Dilution” for more information.

Provisions in our governing documents will require disclosure of information about stockholders that would not otherwise be required to be disclosed under applicable U.S. state or federal laws.

In accordance with the AIM Rules for Companies published by the London Stock Exchange, or the AIM Rules, we are required to disclose information regarding the legal and beneficial owners of three percent or more of our outstanding common stock. In order to allow us to comply with the AIM Rules, our certificate of incorporation contains a provision requiring any legal or beneficial owner of three percent or more of the voting power attributable to our outstanding common stock to notify us of his, her or its holdings, as well as of any change in his, her or its legal or beneficial ownership above three percent of our outstanding common stock, which increases or decreases his, her or its holding through any single percentage. Comparatively, none of the U.S. state or federal laws that will be applicable to us after the offering or the rules of Securities and Exchange Commission, or the SEC, or the Nasdaq Global Select Market require stockholders to report this beneficial ownership information to us or us to disclose this information to the public or a regulatory body. We are required to make this information public in the United Kingdom under the AIM Rules.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. We intend to use the net proceeds from this offering to: (i) continue making investments in research and development efforts; (ii) continue making investments

in building our business development, sales and applications teams and marketing our products to new and existing partners in attractive global markets, as well as for general corporate purposes, including working capital, operating expenses and capital expenditures; (iii) further invest to in-source and automate manufacturing to support our cell therapy customers; (iv) scale our process development capabilities via investment in laboratory space, equipment and addition of scientific resources; and (v) commercialize our VLX Large-Scale Transfection System under the ExPERT family of products to facilitate potential expansion into adjacent markets. The failure by our management to apply these funds effectively could result in financial losses that could have an adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

We are an "emerging growth company," and we cannot be certain if the reduced reporting requirements applicable to "emerging growth companies" will make our common stock less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act, and we may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not "emerging growth companies," including the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, or Section 404, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. Pursuant to Section 107 of the JOBS Act, as an emerging growth company, we have elected to use the extended transition period for complying with new or revised accounting standards until those standards would otherwise apply to private companies. As a result, our financial statements may not be comparable to the financial statements of issuers who are required to comply with the effective dates for new or revised accounting standards that are applicable to public companies, which may make our common stock less attractive to investors. In addition, if we cease to be an emerging growth company, we will no longer be able to use the extended transition period for complying with new or revised accounting standards.

We will remain an emerging growth company until the earliest of: (1) the last day of the fiscal year following the fifth anniversary of this offering; (2) the last day of the first fiscal year in which our annual gross revenue is $1.07 billion or more; (3) the date on which we have, during the previous rolling three-year period, issued more than $1 billion in non-convertible debt securities; and (4) the last day of the fiscal year in which the market value of our common stock held by non-affiliates exceeded $700 million as of June 30 of such fiscal year.

We cannot predict if investors will find our common stock less attractive if we choose to rely on these exemptions. For example, if we do not adopt a new or revised accounting standard, our future results of operations may not be as comparable to the results of operations of certain other companies in our industry that adopted such standards. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock, and our stock price may be more volatile.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, stockholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common stock.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. In addition, any testing by us conducted in connection with Section 404, or any subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. Inferior internal controls

could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common stock.

We will be required to disclose changes made in our internal controls and procedures on a quarterly basis and our management will be required to assess the effectiveness of these controls annually. However, for as long as we are an "emerging growth company" under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal controls over financial reporting pursuant to Section 404. We could be an "emerging growth company" for up to five years. An independent assessment of the effectiveness of our internal controls could detect problems that our management's assessment might not. Undetected material weaknesses in our internal controls could lead to financial statement restatements and require us to incur the expense of remediation.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of our company more difficult, limit attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our fifteenth amended and restated certificate of incorporation and amended and restated bylaws, as they will be in effect upon the completion of this offering, and provisions of Delaware law applicable to us, may have the effect of delaying or preventing a change of control or changes in our management. Our fifteenth amended and restated certificate of incorporation and amended and restated bylaws will include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, shares of undesignated preferred stock with terms, rights, and preferences determined by our board of directors that may be senior to our common stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, the chairperson of our board of directors, or our chief executive officer;
- establish an advance notice procedure for stockholder proposals to be brought before an annual meeting, including proposed nominations of persons for election to our board of directors;
- establish that our board of directors is divided into three classes, with each class serving three-year staggered terms;
- prohibit cumulative voting in the election of directors;
- provide that our directors may be removed (i) with or without cause, upon the vote of at least 50% of the outstanding shares of voting stock or (ii) with cause, by the affirmative vote or consent of at least two-thirds of the other members of our board of directors; and
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum.

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, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally, subject to certain exceptions, prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder.

Our fifteenth amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware and, to the extent enforceable, the federal district courts of the United States of America as the exclusive forums for substantially all disputes between us and our stockholders, which will restrict our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers, or employees.

Our fifteenth amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state

courts lack subject matter jurisdiction, the federal district court for the District of Delaware) is the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law:

- any derivative action or proceeding brought on our behalf;
- any action asserting a breach of a fiduciary duty;
- any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our fifteenth amended and restated certificate of incorporation, or our amended and restated bylaws; or
- any action asserting a claim against us that is governed by the internal affairs doctrine.

The provisions would not apply to suits brought to enforce a duty or liability created by the Securities Act or the Securities Exchange Act of 1934, as amended. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our fifteenth amended and restated certificate of incorporation provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our amended and restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These choice of forum provisions may limit a stockholder’s ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees. If a court were to find either choice of forum provision contained in our fifteenth amended and 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 seriously harm our business.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements about us and our industry that involve substantial risks, uncertainties, and assumptions, including those described in “Risk Factors” and elsewhere in this prospectus. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations or financial condition, business strategy and plans and objectives of management for future operations, are forward-looking statements. In some cases, you can identify forward-looking statements because they contain words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will” or “would” or the negative of these words or other similar terms or expressions. These forward-looking statements include, but are not limited to, statements concerning the following:

- our expected future growth and the success of our business model;
- the potential payments we may receive pursuant to our SPLs;
- the size and growth potential of the markets for our products, and our ability to serve those markets, increase our market share and achieve and maintain industry leadership;
- the rate and degree of market acceptance of our products within the cell engineering market;
- the expected future growth of our manufacturing capabilities and sales, support and marketing capabilities;
- our ability to expand our customer base and enter into additional SPLs;
- our ability to accurately forecast and manufacture appropriate quantities of our products to meet commercial demand;
- our expectations regarding development of the cell therapy market, including projected growth in adoption of non-viral delivery approaches and gene editing manipulation technologies;
- our ability to maintain our FDA Master File and Technical Files;
- our research and development for any future products, including our intention to introduce new instruments and PAs and move into new applications;
- the development, regulatory approval, and commercialization of competing products and our ability to compete with the companies that develop and sell such products;
- our ability to retain and hire senior management and key personnel;
- regulatory developments in the United States and foreign countries;
- our expectations regarding the period during which we qualify as an emerging growth company under the JOBS Act;
- our ability to develop and maintain our corporate infrastructure, including our internal controls;
- our financial performance and capital requirements;
- our expectations regarding our ability to obtain and maintain intellectual property protection for our products, as well as our ability to operate our business without infringing the intellectual property rights of others; and
- our use of the net proceeds from this offering.

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

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

The forward-looking statements made in this prospectus relate only to events as of the date on which the statements are made. We undertake no obligation to update any forward-looking statements made in this prospectus to reflect events or circumstances after the date of this prospectus or to reflect new information or the occurrence of unanticipated events, except as required by law. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments.

You should read this prospectus and the documents that we reference in this prospectus and have filed with the Securities and Exchange Commission, or SEC, as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

MARKET, INDUSTRY AND OTHER DATA

This prospectus contains estimates, projections and other information concerning our industry, our business and the markets for our products. Some market data and statistical information contained in this prospectus are also based on management's estimates and calculations, which are derived from our review and interpretation of independent sources and our internal research and knowledge of our market. This information involves a number of assumptions and limitations, and you are cautioned not to give undue weight to these estimates. In addition, projections, assumptions and estimates of the future performance of the industry in which we operate and our future performance are necessarily subject to uncertainty and risk due to a variety of factors, including those described in the sections titled "Risk Factors" and "Special Note Regarding Forward-Looking Statements." These and other factors could cause results to differ materially from those expressed in the projections and estimates made by independent third parties and us.

Unless otherwise expressly stated, we obtained industry, business, market and other data from our own internal estimates and research as well as from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

USE OF PROCEEDS

We estimate that we will receive net proceeds from this offering of approximately $160.2 million (or approximately $184.7 million if the underwriters exercise their option to purchase additional shares of our common stock from us in full) based on a public offering price of $13.00 per share of common stock, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to obtain additional capital to increase our financial flexibility, to support our operations and growth, to create a public market for our common stock in the United States and to enable access to the U.S. public equity markets for us and our stockholders.

We currently intend to use the net proceeds from this offering, together with our existing cash and cash equivalents, as follows:

- approximately $20 million to $30 million for research and development initiatives, including commercialization of the VLX platform under the ExPERT umbrella and introducing next-generation versions of our ExPERT platform;
- approximately $20 million to $30 million to expand our manufacturing capabilities and invest in manufacturing automation;
- approximately $10 million to $20 million to expand our sales and marketing, business development, and field application scientist teams; and
- the remainder for working capital and general corporate purposes.

We may also use a portion of the net proceeds from this offering for the acquisition of businesses, technologies, services or other assets that we believe are complementary to our own. However, we do not currently have agreements or commitments to enter into any acquisitions.

The amount and timing of these expenditures will vary depending on a number of factors, including competitive and technological developments and the rate of growth of our business and our potential acquisition activities. Based on our current plans, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will be sufficient to fund our operating expenses and capital expenditure requirements for the foreseeable future.

We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve.

DIVIDEND POLICY

We have never declared or paid any dividends on our common stock. We currently intend to retain all available funds and future earnings, if any, to fund the development and expansion of our business, and we do not anticipate declaring or paying any cash dividends in the foreseeable future.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and capitalization as of March 31, 2021:

- on an actual basis; and
- on an as adjusted basis, giving effect to our receipt of estimated net proceeds of $160.2 million from the sale of 13,500,000 shares of common stock that we are offering at a public offering price of $13.00 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

Cash and cash equivalents are not components of our total capitalization. You should read this table together with the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our financial statements and related notes included elsewhere in this prospectus.

	March 31, 2021	
	Actual	As Adjusted
Cash and cash equivalents	$ 78,703,700	$ 238,918,700
Stockholders’ equity:		
Common stock, $0.01 par value, 200,000,000 authorized, 84,689,559 shares issued and outstanding, actual; 400,000,000 shares authorized, 98,189,559 shares issued and outstanding, as adjusted	846,900	981,900
Additional paid-in capital	182,766,600	342,846,600
Accumulated deficit	(102,327,900)	(102,327,900)
Total stockholders’ equity	81,285,600	241,500,600
Total capitalization	$ 81,285,600	$ 241,500,600

The number of shares of common stock that will be outstanding after this offering is based on 84,689,559 shares of common stock outstanding as of March 31, 2021, and excludes:

- 12,071,923 shares of common stock issuable on the exercise of outstanding stock options as of March 31, 2021 under our LTIP with a weighted average exercise price of $4.41 per share;
- 4,131,667 shares of common stock reserved for future issuance as of March 31, 2021 under our LTIP; and
- 71,168 shares of common stock issuable on the exercise of an outstanding common stock warrant at an exercise price of £1.09081 ($1.50477 based on the exchange rate of £1.00 to $1.3795, the exchange rate on March 31, 2021) per share.

DILUTION

If you invest in our common stock in this offering, your interest will be diluted to the extent of the difference between the public offering price per share of common stock and the as adjusted net tangible book value per share immediately after this offering.

Our net tangible book value as of March 31, 2021 was $81.3 million, or $0.96 per share of common stock. Our net tangible book value per share represents the amount of our total tangible assets less our total liabilities, divided by the number of our shares of common stock outstanding as of March 31, 2021.

After giving effect to the sale by us of 13,500,000 shares of common stock in this offering at a public offering price of $13.00 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of March 31, 2021 would have been $241.5 million, or $2.46 per share. This amount represents an immediate increase in net tangible book value of $1.50 per share to our existing stockholders and an immediate dilution of $10.54 per share to new investors purchasing common stock in this offering. We determine dilution by subtracting the as adjusted net tangible book value per share after this offering from the public offering price per share paid by investors purchasing common stock in this offering. The following table illustrates this dilution on a per share basis:

Public offering price per share		$13.00
Historical net tangible book value per share as of March 31, 2021	$0.96	
Increase in net tangible book value per share attributable to new investors purchasing shares in this offering	1.50	
As adjusted net tangible book value per share after giving effect to this offering		2.46
Dilution per share to new investors in this offering		$10.54

If the underwriters exercise their option to purchase additional shares of common stock from us in full, our as adjusted net tangible book value would be $2.65 per share, and the dilution in net tangible book value per share to new investors in this offering would be $10.35 per share.

The following table summarizes, as of March 31, 2021, on the as adjusted basis described above, the number of shares of our common stock, the total consideration and the average price per share (1) paid to us by existing stockholders for shares purchased in the last five years and (2) to be paid by new investors acquiring our common stock in this offering at a public offering price of $13.00 per share.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders	55,504,812	80.4%	$141,953,649	44.7%	$ 2.56
New investors	13,500,000	19.6	175,500,000	55.3	$13.00
Total	69,004,812	100.0%	$317,453,649	100.0%	

The number of shares of common stock that will be outstanding after this offering is based on 84,689,559 shares of common stock outstanding as of March 31, 2021, and excludes:

- 12,071,923 shares of common stock issuable on the exercise of outstanding stock options as of March 31, 2021 under our LTIP with a weighted average exercise price of $4.41 per share;
- 4,131,667 shares of common stock reserved for future issuance as of March 31, 2021 under our LTIP; and
- 71,168 shares of common stock issuable on the exercise of an outstanding common stock warrant at an exercise price of £1.09081 ($1.50477 based on the exchange rate of £1.00 to $1.3795, the exchange rate on March 31, 2021) per share.

To the extent that stock options or warrants are exercised, new stock options or other equity awards are issued under our equity incentive plans, or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

The selected consolidated statement of operations data for the fiscal years ended December 31, 2019 and 2020 and the selected consolidated balance sheet data as of December 31, 2019 and 2020 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated statement of operations data for the three months ended March 31, 2020 and 2021 and the summary consolidated balance sheet data as of March 31, 2021 have been derived from our unaudited interim financial statements included elsewhere in this prospectus. You should read the financial data set forth below in conjunction with our consolidated financial statements and the accompanying notes and the information in the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results to be expected for any period in the future.

	Year Ended December 31,		Three Months Ended March 31,	
	2019	2020	2020	2021
Consolidated Statement of Operations Data:				
Revenue	$ 21,620,700	$ 26,168,900	$ 5,742,000	$ 6,494,900
Costs of goods sold	2,499,200	2,767,000	659,000	693,100
Gross profit	19,121,500	23,401,900	5,083,000	5,801,800
Operating expenses:				
Research and development	17,601,200	17,744,300	4,244,700	6,077,700
Sales and marketing	7,852,100	8,328,700	2,050,100	2,789,100
General and administrative	6,088,200	8,385,600	1,776,500	3,308,100
Total operating expenses	31,541,500	34,458,600	8,071,300	12,174,900
Operating loss	(12,420,000)	(11,056,700)	(2,988,300)	(6,373,100)
Other income (expense):				
Interest and other expense	(681,100)	(825,600)	(116,300)	(742,300)
Interest and other income	206,100	65,900	42,700	9,800
Total other income (expense)	(475,000)	(759,700)	(73,600)	(732,500)
Net loss	$(12,895,000)	$(11,816,400)	$ (3,061,900)	$ (7,105,600)
Net loss per share, basic and diluted	$ (0.23)	$ (0.17)	$ (0.05)	$ (0.09)
Weighted-average common shares outstanding, basic and diluted	56,397,524	69,464,751	57,403,583	81,004,081

	As of December 31,		As of March 31,
	2019	2020	2021
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 15,210,800	$ 18,755,200	$ 78,703,700
Working capital(1)	15,108,900	33,639,100	77,015,100
Total assets	29,985,400	51,780,100	95,007,800
Total liabilities	16,383,600	18,554,700	13,722,200
Additional paid-in capital	96,433,700	127,673,900	182,766,600
Accumulated deficit	(83,405,900)	(95,222,300)	(102,327,900)
Total stockholders' equity	13,601,800	33,225,400	81,285,600

(1) Working capital is defined as current assets less current liabilities.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the section of this prospectus titled "Selected consolidated financial data" and our consolidated financial statements and related notes appearing at the end of this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and business strategy, include forward-looking statements that involve risks and uncertainties. As a result of many factors, our actual results could differ materially from those discussed in or implied by these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in the section of this prospectus titled "Risk factors." Please also see the section titled "Special note regarding forward-looking statements."

Overview

We are a leading commercial cell engineering company focused on providing enabling platform technologies to advance innovative cell-based research as well as next-generation cell therapeutic discovery, development and commercialization. Over the past twenty years, we have developed and commercialized our proprietary Flow Electroporation platform, which facilitates complex engineering of a wide variety of cells. Electroporation is a method of transfection, or the process of deliberately introducing molecules into cells, that involves applying an electric field in order to temporarily increase the permeability of the cell membrane. This precisely controlled increase in permeability allows the intracellular delivery of molecules, such as genetic material and proteins, that would not normally be able to cross the cell membrane as easily.

Our ExPERT platform, which is based on our Flow Electroporation technology, has been designed to address this rapidly expanding cell therapy market and can be utilized across the continuum of the high-growth cell therapy sector, from discovery and development through commercialization of next-generation, cell-based medicines. The ExPERT family of products includes: three instruments, the ATx, STx and GTx; portfolio of proprietary related processing assemblies, or disposables; and software protocols. We have garnered meaningful expertise in cell engineering via our internal research and development efforts as well as our customer-focused commercial approach, which includes a growing application scientist team. The platform is also supported by a robust intellectual property portfolio with 50 granted U.S. and foreign patents and 76 pending patent applications worldwide.

From leading commercial cell therapy drug developers and top biopharmaceutical companies to top academic and government research institutions, including the U.S. National Institutes of Health, or NIH, our customers have extensively validated our technology. We believe the features and performance of our platform have led to sustained customer engagement. Our existing customer base ranges from large biopharmaceutical companies, including all of the top 10, and 20 of the top 25, pharmaceutical companies based on 2020 global revenue, to hundreds of biotechnology companies and academic centers focused on translational research. As of June 30, 2021, we have placed more than 400 of our electroporation instruments worldwide. During the year ended December 31, 2020, we sold a total of 70 instruments and leased an additional 16 instruments to our customers.

Since our inception, we have incurred significant operating losses. Our ability to generate revenue sufficient to achieve profitability will depend on the successful further development and commercialization of our products. We generated revenue of $21.6 million and $26.2 million for the years ended December 31, 2019 and 2020, respectively, and incurred net losses of $12.9 million and $11.8 million for those same years. As of December 31, 2020, we had an accumulated deficit of $95.2 million. We generated revenue of $6.5 million and incurred a net loss of $7.1 million for the three months ended March 31, 2021. As of March 31, 2021, we had an accumulated deficit of $102.3 million. We expect to continue to incur net losses as we focus on growing commercial sales of our products in both the United States and international markets, including growing our sales teams, scaling our manufacturing operations, continuing research and development efforts to develop new products and further enhance

our existing products. Further, following the closing of this offering, we expect to incur additional costs associated with operating as a public company in the United States.

We believe we have an attractive, diversified revenue model with revenue generated from multiple sources including instrument leases with recurring license fees, sales of instruments and related disposables and participation in the clinical and commercial success of some of our customers through milestone and sales-based payments under agreements that we refer to as Strategic Platform Licenses, or SPLs. In addition to our ExPERT products, we previously developed CARMA, a proprietary therapeutic platform based on transfecting mRNA into unstimulated cells for the development of immune cell therapies. In the first quarter of 2021, we conducted a strategic review of our CARMA activities and made the decision to cease further research and clinical development activities with respect to the CARMA platform for our own internal purposes and instead to focus on out-licensing the CARMA platform manufacturing processes and associated intellectual property to third-party customers. During the years ended December 31, 2019 and 2020 and the three months ended March 31, 2021, our CARMA-related expenses were $11.7 million, $11.1 million and $3.9 million, respectively. As a result of our strategic decision to focus on out-licensing this platform, we will no longer incur these expenses in future periods.

We believe that the net proceeds from this offering, together with our existing cash, will enable us to fund our operating expenses and capital expenditure requirements for the foreseeable future. We have based this estimate on assumptions that may prove to be wrong, however, and we could exhaust our available capital resources sooner than we expect. See “Liquidity and Capital Resources” for more information about our current capital resources.

Impact of COVID-19 on Our Business

In December 2019, a novel strain of coronavirus, which led to the disease known as COVID-19, emerged in Wuhan, Hubei Province, China. Less than four months later, in March 2020, the World Health Organization declared COVID-19 a pandemic, and the virus has now spread to most other countries and regions and every state within the United States, including Maryland, where our primary offices and instrument assembly facility are located. The impact of this pandemic has been and will likely continue to be extensive in many aspects of society, which has resulted in and will likely continue to result in significant disruptions to the global economy, as well as businesses and capital markets around the world.

Impacts to our business as a result of COVID-19 have included disruptions to our manufacturing operations and supply chain caused by facility closures, reductions in operating hours, staggered shifts and other social distancing efforts, decreased productivity and unavailability of materials or components, limitations on our employees’ and customers’ ability to travel, and delays in product installations, demonstrations, trainings or shipments to and from affected countries and within the United States. In light of the uncertain and rapidly evolving situation relating to the spread of COVID-19, we have taken precautionary measures intended to minimize the risk of the virus to our employees, our customers and the communities in which we operate, including temporarily closing our offices to visitors and limiting the number of employees in our offices to those that are deemed essential for manufacturing and research purposes, as well as virtualizing, postponing or canceling customer, employee and industry events.

Disruptions in our customers’ operations have impacted and may continue to impact our business. For example, customers have experienced delays in the progress of their clinical programs, shutdowns or slowdowns in their research laboratory operations, cessation of equipment purchases, and closing of their facilities to outsiders, which have disrupted our ability to conduct product demonstrations that are a key part of our selling process. We are focused on navigating the challenges presented by COVID-19, which includes increased focus on inventory levels of finished goods and parts to reduce the risk of COVID-related supply constraints.

We do not yet know the net impact that the COVID-19 pandemic may have on our business and cannot guarantee that it will not be materially negative. Although we continue to monitor the situation and may adjust our current policies as more information and public health guidance become available,

the ongoing effects of the COVID-19 pandemic and/or the precautionary measures that we or our customers have implemented or may adopt may create operational and other challenges, any of which could harm our business and results of operations. While we maintain an inventory of finished products and raw materials used in our products, a prolonged pandemic could lead to shortages and/or extended lead times for the raw materials necessary to manufacture our products. If we experience a prolonged disruption in our manufacturing, supply chains or commercial operations, or if demand for our products is significantly reduced as a result of the COVID-19 pandemic, we would expect to experience a material adverse impact on our business, financial condition, results of operations and prospects.

Historically, a significant portion of our field sales, product demonstrations and user support have been conducted in person, and the marketing of our products, sourcing of potential new customers and rollout of our new products has historically been supported by our participation at industry conferences. Currently, as a result of the work and travel restrictions related to the COVID-19 pandemic, and the precautionary measures that we have adopted, substantially all of our field sales and professional services activities are being conducted remotely, which has resulted in a decrease in our travel and conference-related marketing expenditures. However, we expect these expenditures to increase in the future, which could negatively impact our financial condition and results of operations. As of the date of this prospectus, we do not yet know the extent of the negative impact of such restrictions and precautionary measures on our ability to attract new customers or retain and expand our relationships with existing customers over the near and long term.

Key Factors Affecting Our Performance

We believe that our financial performance has been, and in the foreseeable future will continue to be, primarily driven by the following factors. While each of these factors presents significant opportunities for our business, they also pose challenges that we must successfully address in order to sustain our growth and improve our results of operations. Our ability to successfully address the factors below is subject to various risks and uncertainties, including those described in this prospectus under the heading “Risk Factors.”

Sales and Leases of Instruments

Our financial performance has largely been driven by, and in the future will continue to be impacted by, the rate of sales and leases of our ExPERT family of proprietary flow electroporation instruments to existing and new customers. We currently market three versions of our instruments, the ATx, the STx, and the GTx, and we plan to introduce and market a fourth version called the VLX under the EXPERT brand. While the ATx and STx are primarily sold to end users for research and drug discovery purposes, the GTx is sold, typically to academic centers, for research or clinical use as well as leased to customers for research, clinical or commercial use. We view the demand for our instruments, whether in the form of sales or leases, as an indicator of the health of our current business and as a predictor of future instrument sale and lease revenue. As described below, we separately sell proprietary single-use disposables, which we call processing assemblies, or PAs, that are necessary for our customers to use our electroporation instruments. Therefore, depending on the number of instruments that have been sold or are under active lease, we have insight into the demand for PAs that will also translate to future revenue for us.

Our sales model varies based on the activity of the end customer, such as whether they are a translational research center, an academic center, a company focused on drug discovery, or a company engaged in cell therapy development, and the customer’s intended use of our platform. If our customer intends to use our platform for research or drug discovery only, we typically sell the instrument outright. Each of the ATx, STx and GTx have different prices based on the instrument’s features, with the GTx being the most expensive. When we sell an instrument, we also provide a non-exclusive license to our intellectual property for the customer to use the instrument broadly for research or drug discovery, as applicable. In the case of a sale, title to the instrument conveys to the buyer, but we retain the ownership of intellectual property rights and software and protocols loaded onto the instruments.

The sales cycle for our cell engineering instruments varies widely and typically ranges from approximately six to approximately 12 months, with the actual period depending on project stage, budget process, equipment prioritization and the general financial status of the customer or the market

in general. As a result of this lengthy and unpredictable sales cycle, we expect that we will be prone to quarterly fluctuations in our instrument sales revenue.

For cell therapy customers who use our technology to develop engineered cells for human therapeutic use in clinical trials or, if approved by regulatory authorities, for commercial sale, we license our platform on a non-exclusive basis in exchange for an annual fee per instrument licensed. This license fee varies based on whether the instrument is being used for preclinical or clinical purposes. Once we have leased an instrument to a customer, we generally have high visibility into future lease revenue from this customer. Over the last several years, approximately 80% of our installed instruments up for annual lease renewal have been renewed by our customers, and the renewal rate for instruments under SPLs has been near 100%. It is possible, however, that our future lease revenue could be impacted by failure of the customer therapeutic candidates to progress through clinical development for reasons unrelated to the successful use of our instruments, such as drug toxicity, lack of efficacy, funding constraints, changes in development priorities, patient access limitations or regulatory challenges. For any of these reasons, a customer could determine not to renew or to enter into additional instrument leases with us.

Our installed base of electroporation instruments has grown from over 125 instruments as of December 31, 2015 to over 400 instruments as of June 30, 2021. This installed base includes both instruments sold to customers and instruments licensed for research and clinical use. Because of the size of the drug discovery market and our long history in that market, the installed base of instruments is currently weighted more heavily towards instruments sold for drug discovery and research applications. However, since each licensed instrument provides us with ongoing license revenues, the share of revenues from licensed instruments may grow as a share of our total revenue mix.

We plan to further grow our installed base of ExPERT instruments through additional sales and leases to our current customers and through the sale or lease of instruments to new cell therapy, drug discovery and academic customers. To achieve this goal, we intend to further expand our commercial infrastructure, including through the expansion of our sales force and field application scientists. We have expanded our sales force and field application scientist count over the past several years and now have over 20 dedicated field sales and application scientist professionals globally. Our candidate identification and hiring process is stringent, and there can be no assurance that we will be able to continue to recruit the high level of candidates that make up our current team.

In addition, we have numerous collaborations in place with academic and commercial institutions to further expand our capabilities and supporting data in new cell engineering applications. Recent sales efforts have also focused on expanding our presence in translational academic centers, which we view as a potentially meaningful source of installed base expansion given the increased industry focus on, and government funding allocated to, cell therapy. Academic translational centers have been a strong source of cell therapy innovation and commercial spinouts in the cell therapy sector.

We expect revenue from instruments leased to cell therapy customers to continue to grow as those customers move their existing drug development programs into later-stage clinical trials and advance their preclinical pipeline programs into clinical development. In addition, we expect new customers to emerge and contribute to these revenues, particularly given the underlying growth in the cell therapy pipeline among companies in this industry, availability of capital to support such companies, and in particular the switch by some of these cell therapy companies away from viral approaches to non-viral approaches.

Sales of Processing Assemblies

In addition to instrument sales, our current and future revenue is dependent on sales of our proprietary PAs, as well as the sale of our proprietary electroporation buffer solution, for use with our instruments. We sell PAs that are intended either to support research use or use in current good manufacturing practices, or cGMP, clinical research applications. The PAs differ in terms of their volume capacities and the associated numbers of cells that can be processed in each electroporation sequence with a particular PA, as well as the number of transfection experiments that can be performed in a single electroporation process. Our PA pricing varies based on the volume of cells processed and the number of transfections per PA.

We expect that as our installed instrument base grows, our sales of PAs and electroporation buffer solutions will grow accordingly, especially as cell therapy programs continue to progress through the clinic and potentially become commercial-stage, thereby increasing the number of PAs needed by customers. We are also developing and intend to launch new PAs that target previously unserved subsegments across the bioprocessing and cell therapy markets, which could further increase our PA sales. However, both the number of PAs used per instrument, as well as the specific PA used, is highly variable across our customer base and depends on several factors, including:

- the purpose for which the customer is using the platform;
- the relative pricing of our PAs;
- progression of cell therapy products through preclinical and clinical development;
- whether the cell therapy customer uses a centralized or decentralized manufacturing process;
- the customer's target indication, which can result in variations in patient numbers needed for clinical trials; and
- whether the cells to be processed using our platform are patient-derived, donor-derived or cell line-derived.

With considerable variability of processes, even within the same indication, such as is the case for allogeneic genetically-modified cell therapies, such as chimeric antigen receptor T cells, or CAR-Ts, and the nascency of the cell therapy industry, we expect that it may take several years for us to gain visibility into how these factors will impact our PA revenue over time.

We continuously re-evaluate our PA portfolio based on customer needs and have introduced, and intend to continue to introduce, new PAs and improvements to existing PAs. In 2019, we launched the first multi-well PAs for the ExPERT platform. Compared to single-well, multi-well PAs allow users to run multiple samples concurrently, which enables scientists to complete more experiments per run, leading to shorter overall processing time and lower per transfection cost. Introduction of new PAs, however, introduces additional uncertainty. Some new PAs may fail to be used in line with our expectations when they are launched. While we also price PAs based on the value provided to the customer, introduction of new PAs could cannibalize our existing PA portfolio more than we had anticipated as customers find the new products to be a better solution for their applications or workflows.

Strategic Platform Licenses (SPLs)

Typically, our cell therapy customers will either purchase our ATx instrument for research purposes or obtain a research use license under lease of our GTx instrument technology in order to validate the use of our technology in their programs and to progress their preclinical work towards clinic trials. However, once a cell therapy customer using one of our ExPERT instruments advances their preclinical research to a stage where they are planning to enter clinical development, they need to enter into a licensing arrangement with us for the rights to clinical and/or commercial use of our instrument. Our customers typically negotiate the terms of those licenses during research and preclinical development.

We refer to these arrangements as SPLs, the terms of which contain not only higher annual, non-exclusive license fees for the clinical use of the instrument, but also allow us to share in the economics of the customer's programs. From 2017 through June 30, 2021, we have entered into 13 SPLs with commercial cell therapy developers, and those licenses currently allow for over 75 clinical development programs in the aggregate. On average, our current SPLs allow for approximately six product candidates per license, although this average may change over time. SPLs include potential payments to us upon the customer's achievement of specified clinical development or regulatory milestones, as well as potential sales-based payments to us, which could be payments based upon the achievement of specified sales levels and/or royalty payments that are a percentage of the customer's net sales. The amount of each milestone payment is typically correlated in size with value-creating, pre-commercial clinical progress events or commercial sales levels.

Of the over 75 programs associated with our current SPLs, more than 15% are in the clinic, meaning they have at least an FDA-cleared Investigational New Drug application, or IND. Our 13 SPLs have the potential to generate over $950 million in pre-commercial milestone payments, if all product candidates allowed under those agreements were to fully progress through clinical development and obtain regulatory approval. However, our actual milestone revenue from these agreements will likely be

considerably lower than this amount, as not all programs covered by each agreement will become and remain active programs in a customer's development pipeline or successfully complete the clinical development process, and each agreement typically includes programs that have not been specifically identified, or for which a candidate may never be identified or developed by the customer.

Our strategy is to capitalize on the growth in the number of cell therapy developers by entering into new SPLs. We announced six such agreements in 2019, three in 2020 and two so far in 2021.

For the year ended December 31, 2020, one cell therapy company with which we have entered into an SPL accounted for 15% of our total revenue, and our six largest such customers accounted for an aggregate of approximately 40% of our total revenue for the year through a combination of instrument license fees, milestones realized and processing assembly revenue.

Our future milestone revenue under our SPLs will depend in large part on the clinical and regulatory achievements of our customers. Generally, pre-commercial milestone payments become larger as programs move through the clinic. We rely in part on our customers' public disclosures around regulatory timelines to forecast our receipt of pre-commercial milestone payments. While we expect our forecasting ability to improve over time as more of our customers' programs advance through the clinic and the number of clinical programs covered by our licenses expands, given the early nature of the cell therapy clinical market, we expect our realization of pre-commercial milestones to be somewhat unpredictable.

In addition, the potential for sales-based payments once a customer's product is approved and in commercial use is unknown and variable based on a number of factors, including inherent clinical risk, potential changes in the customer's strategy, the designated indication and its impact on the potential number of patients to be served and the competitive products available to patients, product pricing and reimbursement structures, our customer's commercial manufacturing plans and the inherent unknowns in adoption of next-generation cell therapies relative to other modalities.

Gross Margins

We have historically generated overall gross margins of approximately 89% over the past several years, although our margins depend on our revenue mix from instruments, PAs and potential milestones under SPLs. We price our instruments at a premium given what we believe to be the broad benefits of our platform, and the limited availability of alternative, clinically validated non-viral delivery approaches. However, the market for non-viral delivery is highly competitive, and introduction of a GMP-grade platform by a competitor that delivers similar performance across a similar diversity of cell types could negatively impact our business and lead to increased price pressure that negatively impacts our gross margins. In addition, part of our growth strategy is to expand into new regional markets, which could require the use of distributors and/or our participation in more competitive environments, which could impact our ability to price our instruments at a premium and could negatively impact our ability to enter into SPLs on terms similar to those currently in effect.

We expect our gross margins to benefit from realization of the economics from our SPL agreements described above, to the extent that such milestones grow to be a significant proportion of overall revenues, as there is no cost of goods sold associated with such revenue. However, realization of these potential milestone revenues is uncertain.

Key Business Metrics

In addition to revenue, we regularly review several key business metrics to evaluate our business, measure our performance, identify trends affecting our business, formulate financial projections and make strategic decisions. These key metrics include:

- the number of cumulative instruments that we have placed with our customers, either by sale or lease, which we refer to as our installed base and consider to be an indication of our traction within the non-viral delivery market and indicative of the future recurring revenue generated from those instruments, including disposables and annual license fees;
- the number of active SPLs that we have entered into with cell therapy developers, as well as the total number of our customers' clinical programs, whether active or contemplated, that are

covered by such active SPLs and the percentage of those clinical programs that are under an active IND application (or foreign equivalent), meaning that the customer is cleared to commence clinical trials;

- the aggregate potential pre-commercial milestone payments under active SPLs, representing the maximum potential milestone payments to us if all programs covered by each SPL were to achieve regulatory approval;
- the aggregate number of potential programs licensed for clinical use, whether active or contemplated, that are covered by only our SPLs; and
- the aggregate number of programs licensed for clinical use and covered by our SPLs that are currently in the clinic.

With respect to the numbers of programs under license, in many cases we make estimates of such programs based on our contract terms with our customers and our knowledge about our customers' clinical progression of their programs. We rely, in part, on our customers' public disclosures around regulatory timelines to forecast our receipt of pre-commercial milestone payments. However, it is possible that some programs may have become dormant or inactive without our knowledge, some new programs may be identified and some programs may progress further in clinical development without our knowledge if the customer has not made a public announcement. While we expect our forecasting ability to improve over time as more of our customers' programs move through the clinic and the number of clinical programs covered by our licenses expands, given the early nature of the cell therapy clinical market, we expect our realization of pre-commercial milestones to be somewhat unpredictable. This number may fluctuate due to the success of our commercial partners. Additionally, the addition of a large multi-product (program) SPL may dilute the percentage of commercial programs currently in the clinic.

As of the dates presented, our key metrics described above were as follows:

	As of December 31,		As of June 30, 2021
	2019	2020*	
Installed base of instruments (sold or leased)	>320	>400	>400
Number of active SPLs	8	12	13
Total number of licensed clinical programs (SPLs only)	>55	>75	>75
Total number of licensed clinical programs under SPLs currently in the clinic	>5%	>15%	>15%
Total potential pre-commercial milestones under SPLs	>$650 million	>$950 million	>$950 million

* Amounts presented as of December 31, 2020 give effect to one SPL entered into and additional INDs cleared in January 2021.

Components of Our Results of Operations

Revenue

We generate revenue principally from the sale of instruments, single-use PAs and buffer, and from the lease of instruments to our customers. Our SPLs also include associated clinical progress milestones and sales-based payments to us, in addition to annual lease payments. Sales of instruments and disposables under contracts with customers are classified as product sales in our consolidated financial statements. Revenue from instrument leases, including payments that we may receive from our customers based on their achievement of specified clinical development or commercialization milestones, are classified as leased elements in our consolidated financial statements.

Our business and revenue growth strategy consists of the sale or lease of instruments and the sale of disposables. We record revenue from the sale of instruments or PAs upon the shipment to a customer. Instrument leases are typically invoiced annually at the start of each instrument license period and are accounted for as monthly revenue over the lease term with the expectation of continuing customer renewals of their instrument leases. As our customers achieve clinical progress milestones and/or sales-based payment milestones, we recognize the full value of the milestone as revenue. In addition, as customers use instruments they have either purchased or leased, they typically replenish

their supplies of disposables through recurring purchases. Although customers are not contractually obligated to renew their instrument leases or to purchase additional disposables and may decide not to do so solely at their own discretion, leased instruments and disposables revenue streams have historically formed an important component of our future revenues, and we believe they provide insight into our future performance. We consider these sales and lease revenue streams to be recurring revenues.

In order to evaluate how our sales are trending across key markets, as well as the contribution of program economics from our SPLs, we separately analyze revenue derived from our cell therapy customers and drug discovery customers, as well as the performance-based milestone revenues we recognize under our SPLs. Cell therapy includes revenue from instruments sold, annual license fees for instruments under lease, and sales of our proprietary disposables. Drug discovery includes revenue from instruments sold, sales of our proprietary disposables and, occasionally, instruments leased, in each case under contracts with drug discovery customers. Program-related revenue includes pre-commercial milestones earned and recognized as revenue during the period. Once SPL customers achieve regulatory approval for and commercialize their products, in nearly all cases we will also be entitled to receive sales-based payments which may be milestone payments upon achievement of specified levels of net sales and/or royalties expressed as a percentage of net sales. We have not received any commercial payments from our SPL customers to date, and we do not expect to receive any such payments in the near term. As our customers progress their programs and achieve additional milestones, our SPL program revenue is expected to constitute a growing portion of our total revenues in future periods.

We also offer our customers extended warranty and service plans. Our extended warranty and service plans are offered for periods beyond the standard no-fee, one-year warranty that customers who purchase instruments receive. These extended warranty and service plans generally have fixed fees and terms ranging from one additional year to four additional years and include an annual calibration. We recognize revenue from the sale of extended warranty and service plans over the respective coverage period, which approximates the service effort provided by us. Warranties are typically not a material revenue stream for us.

Product Sales

Revenue from contracts with customers includes revenue from the sale of instruments, PAs and buffer. Customers purchase an ATx, STx or GTx depending upon their intended use and all customers purchase PAs for use with our instruments. Commercial customers may not use a purchased instrument for clinical or commercial processes.

We expect product sales revenue to increase in future periods as our market grows and we are able to generate recurring PA sales.

Leased Elements

Revenue from leased elements consists of revenue from the leasing of instruments to customers (typically the GTx). Our leases of instruments to customers consist of fixed license/lease payments and variable milestone payments that are dependent on our customer's achievement of clinical milestones. Typically, instrument leases that provide for clinical or commercial use also include sales-based milestone payments (and/or sales-based royalties in some cases) upon the commercialization of the customer's product. Under our instrument lease arrangements we lease our instruments to customers and provide associated software licenses to allow customers non-exclusive use of our technology for research and/or specific clinical programs, typically along with rights for commercial use upon approval of the customer's products. We also provide to our clinical use licensees scientific and regulatory support to help them improve process optimization and facilitate their regulatory submission process.

We expect leased elements revenue to increase in future periods as our market grows.

Cost of Goods Sold

Cost of goods sold primarily consists of costs for raw material parts, contract manufacturer costs, salaries, overhead and other direct costs related to sales recognized as revenue in the period. Cost of goods sold associated with instrument lease revenue consists of leased equipment depreciation.

We expect that our cost of goods sold will increase or decrease primarily to the extent that our instrument and disposables revenue increases and decreases.

Gross Profit and Gross Margin

Gross profit is calculated as revenue less cost of goods sold. Gross profit margin is gross profit expressed as a percentage of revenue. Our gross profit in future periods will depend on a variety of factors, including sales mix among instruments, disposables and milestones, the specific mix among types of instruments or disposables, the proportion of revenues associated with instrument leases as opposed to sales, the share of revenues composed of milestones, changes in the costs to produce our various products, the launch of new products or changes in existing products, our cost structure for manufacturing including changes in production volumes, and the pricing of our products which may be impacted by market conditions.

Operating Expenses

Research and Development

Research and development expenses consist primarily of costs incurred for our research activities related to advancing our technology and development of applications for our technology, including research into specific applications and associated data development, process development, product development (e.g. development of instruments and disposables, including hardware and software engineering) and design and other costs not directly charged to inventory or cost of goods sold, such as supply chain development and design and management of quality systems.

These expenses include employee-related costs, such as salaries, benefits, incentive compensation, stock-based compensation, and travel, as well as consultant services, facilities, and other expenses, laboratory supplies and materials expenses for employees and contractors engaged in research and development. We expense research and development costs as incurred in the period in which the underlying activity is undertaken.

We previously developed CARMA, our proprietary platform technology for the development of non-viral, human messenger RNA, or mRNA-based, chimeric antigen receptor, or CAR, or T-cell receptor, or TCR, redirected immune cell therapies.

In the first quarter of 2021, we conducted a strategic review of our CARMA activities and made the decision to cease further pre-clinical and clinical activities with respect to the CARMA platform and associated candidates (MCY-M11 and other identified targets) for our own internal purposes and instead to focus on out-licensing the CARMA platform manufacturing processes and associated intellectual property to third-party customers. For periods through the first half of 2021, our research and development expenses include costs associated with developing the CARMA platform principally for a clinical trial that has concluded. As a result of our strategic decision to focus on out-licensing this platform, we will no longer incur significant CARMA-related expenses after the first half of 2021.

We believe that our continued investment in research and development is essential to our long-term competitive position. We expect to continue to incur substantial research and development expenses as we invest in research and development to support our customers, develop new uses for our existing technology and develop improved and/or new offerings to our customers and partners. As a result, we expect that our research and development expenses, excluding CARMA-related expenses, will continue to increase in absolute dollars in future periods and vary from period to period as a percentage of revenue.

Sales and Marketing

Our sales and marketing expenses consist primarily of salaries, commissions and other variable compensation, benefits, stock-based compensation and travel costs for employees within our commercial sales and marketing functions, as well as third-party costs associated with our marketing activities. We expect our sales and marketing expenses to increase in future periods as we expand our commercial sales, marketing and business development teams, increase our presence globally, and increase marketing activities to drive awareness and adoption of our products.

General and Administrative

General and administrative expenses primarily consist of salaries, benefits, stock-based compensation and travel costs for employees in our executive, accounting and finance, legal, corporate

development, human resources, and office administration functions as well as professional services fees, such as consulting, audit, tax and legal fees, general corporate costs, facilities and allocated overhead expenses and costs associated with being an AIM listed public company such as director fees, broker fees, investor relations consultants and insurance costs. We expect that our general and administrative expenses will continue to increase in absolute dollars in future periods, primarily due to increased headcount to support anticipated growth in the business and due to incremental costs associated with operating as a public company listed on two exchanges, including insurance (particularly directors and officers insurance), costs to comply with the rules and regulations applicable to companies listed on a U.S. securities exchange and costs related to compliance and reporting obligations pursuant to the rules and regulations of the SEC and stock exchange listing standards, public relations and professional services. We expect these expenses to vary from period to period as a percentage of revenue.

Other Income (Expense)

Interest Expense

Interest expense consists primarily of interest related to borrowings under credit facility agreements. For the years ended December 31, 2019 and 2020 and the three months ended March 31, 2020 and 2021, we had a $5.0 million outstanding term loan, or the Term Loan, under the MidCap Credit Agreement (as defined below). As of March 31, 2021, we repaid the Term Loan in full prior to maturity as allowed by and in accordance with the terms of the MidCap Credit Agreement.

Other Income (Expense), Net

We classify our outstanding warrant for the purchase of shares of our common stock as a liability on our consolidated balance sheets since the warrant's strike price is in a currency other than our functional currency. The warrant liability is initially recorded at fair value at the date of issuance and is subsequently remeasured to fair value at each reporting date. Changes in the fair value of the warrant liability are recognized as a component of other income (expense). Other income (expense), net also includes interest earned on cash balances in our cash accounts and interest earned on money market funds, commercial paper and corporate bonds as well as miscellaneous income unrelated to our core operations.

Provision for Income Taxes

We did not recognize a benefit for the net operating losses we incurred for the years ended December 31, 2019 and 2020. As of December 31, 2020, we had U.S. net operating loss carryforwards of $57.8 million, which may be available to offset future taxable income and begin to expire in 2025, as well as net operating losses in the various states in which we file. We have recorded a full valuation allowance against our net deferred tax assets at each balance sheet date since, due to our history of net losses, we have determined that it is not currently more likely than not that our net deferred tax assets are recoverable.

The use of our net operating loss carryforwards may have been restricted by changes in our ownership and may be further restricted as a result of future changes in our ownership.

Results of Operations

Comparison of the Three Months Ended March 31, 2020 and 2021

The results of operations presented below should be reviewed in conjunction with the condensed consolidated interim financial statements and notes included elsewhere in the prospectus. The following tables set forth our results of operations for the periods presented:

	Three Months Ended March 31,	
	2020	2021
	(in thousands)	
Total revenue	$ 5,742	$ 6,495
Cost of goods sold	659	693
Gross profit	5,083	5,802
Operating expenses		
Research and development	4,245	6,078
Sales and marketing	2,050	2,789
General and administrative	1,777	3,308
Total operating expenses	8,071	12,175
Operating loss	(2,988)	(6,373)
Other income (expense)		
Interest and other expense	(116)	(742)
Interest and other income	43	10
Total other income	(74)	(733)
Net loss	$(3,062)	$ (7,106)

Revenue

	Three Months Ended March 31,		Change	
	2020	2021	Amount	%
	(in thousands, except percentages)			
Revenue				
Product sales	$3,195	$4,076	$ 881	28%
Leased elements	2,426	2,256	(170)	(7)
Other	121	163	43	35
Total Revenue	$5,742	$6,495	$ 753	13%

Revenue increased by $0.8 million, or 13%, from the three months ended March 31, 2020 to the three months ended March 31, 2021. Product sales accounted for 56% and 63% of our total revenue for the three months ended March 31, 2020 and 2021, respectively, and leased elements revenue accounted for 42% and 35% of our total revenue for the three months ended March 31, 2020 and 2021, respectively.

The following table provides additional details regarding the sources of our revenue for the periods presented:

	Three Months Ended March 31,		Change	
	2020	2021	Amount	%
	(in thousands, except percentages)			
Cell therapy	$3,190	$4,729	$1,539	48%
Drug discovery	1,801	1,762	(38)	(2)
Program-related	752	4	(748)	(99)
Total Revenue	$5,742	$6,495	$ 753	13%

Our overall increase in revenues was primarily driven by growth in sales and leases of instruments and sales of disposables to cell therapy customers. Instrument sales, leased instruments and disposable sales increased in part due to continued high levels of capital invested in companies operating in our target markets.

Costs of Goods Sold

	Three Months Ended March 31,		Change,	
	2020	2021	Amount	%
	(in thousands, except percentages)			
Cost of goods sold	$ 659	$ 693	$ 34	5%

Costs of goods sold increased by $34,000, or 5%, from the three months ended March 31, 2020 to the three months ended March 31, 2021. The increase was primarily driven by higher sales of instruments and disposables. Costs of goods sold did not increase at the same rate as revenue growth because of the impact of growth in leased instruments, which have minimal associated cost of goods sold.

Operating Expenses

Research and Development

	Three Months Ended March 31,		Change	
	2020	2021	Amount	%
	(in thousands, except percentages)			
Research and development	$ 4,245	$ 6,078	$ 1,833	43%

Research and development expenses increased by $1.8 million, or 43%, from the three months ended March 31, 2020 to the three months ended March 31, 2021. The increase was primarily driven by $1.7 million in costs associated with cessation of CARMA operations, partially offset by $0.4 million decrease in on-going CARMA activities, and a $0.5 million increase in compensation expenses associated with headcount increases and stock-based compensation.

Sales and Marketing

	Three Months Ended March 31,		Change	
	2020	2021	Amount	%
	(in thousands, except percentages)			
Sales and Marketing	$ 2,050	$ 2,789	$ 739	36%

Sales and marketing expenses increased by $0.7 million, or 36%, from the three months ended March 31, 2020 to the three months ended March 31, 2021. The increase was primarily driven by increased compensation expense as a result of headcount increases, commissions on sales, and stock-based compensation which added $0.9 million to sales and marketing costs, partially offset by COVID-19 driven reductions in travel and marketing expenses of $0.2 million. As travel and in-person restrictions instituted due to COVID-19 begin to recede, we expect travel and marketing expenses to increase.

General and Administrative

	Three Months Ended March 31,		Change	
	2020	2021	Amount	%
	(in thousands, except percentages)			
General and administrative	$ 1,777	$ 3,308	$ 1,532	86%

General and administrative expense increased by $1.5 million, or 86%, from the three months ended March 31, 2020 to the three months ended March 31, 2021. The increase was primarily driven by increased compensation expense associated with headcount increases, salary increases, and

stock-based compensation which added $1.1 million within the general and administrative function and $0.3 million in public company and legal expenses.

Interest and Other Income (Expense)

Interest and Other Income

	Three Months Ended March 31,		Change	
	2020	2021	Amount	%
	(in thousands, except percentages)			
Interest and other income	$ 43	$ 10	$ (34)	(77)%

Interest and other income decreased by $34,000, or 77%, from the three months ended March 31, 2020 to the three months ended March 31, 2021. The decrease was primarily driven by a lower average balance of short-term investments.

Interest and Other Expense

	Three Months Ended March 31,		Change	
	2020	2021	Amount	%
	(in thousands, except percentages)			
Interest and other expense	$ 116	$ 742	$ 626	538%

Interest and other expense increased by $0.6 million, or 538%, from the three months ended March 31, 2020 to the three months ended March 31, 2021. The increase was primarily driven by the termination fees associated with repayment before maturity of the Term Loan and the fair value change of common stock warrants, partially offset by the lower interest expenses due to a lower average loan balance associated with the early repayment of debt in 2021.

Comparison of the Years Ended December 31, 2019 and 2020

The results of operations presented below should be reviewed in conjunction with the consolidated financial statements and notes included elsewhere in the prospectus. The following tables set forth our results of operations for the periods presented:

	Year Ended December 31,	
	2019	2020
	(in thousands)	
Total revenue	$ 21,621	$ 26,169
Cost of goods sold	2,499	2,767
Gross profit	19,122	23,402
Operating expenses		
Research and development	17,601	17,744
Sales and marketing	7,852	8,329
General and administrative	6,088	8,386
Total operating expenses	31,542	34,459
Operating loss	(12,420)	(11,057)
Other income (expense)		
Interest and other expense	(681)	(826)
Interest and other income	206	66
Total other income	475	760
Net loss	$(12,895)	$(11,816)

Revenue

	Year Ended December 31,		Change	
	2019	2020	Amount	%
	(in thousands, except percentages)			
Revenue				
Products sales	$12,918	$14,850	$1,932	15%
Leased elements	8,364	10,717	2,354	28
Other	339	601	262	77
Total Revenue	$21,621	$26,169	$4,548	21

Revenue increased by $4.5 million, or 21%, from the year ended December 31, 2019 to the year ended December 31, 2020. Product sales accounted for 60% and 57% of our total revenue for the years ended December 31, 2019 and 2020, respectively, and leased elements revenue accounted for 39% and 41% of our total revenue for the years ended December 31, 2019 and 2020, respectively.

The following table provides additional details regarding the sources of our revenue for the years presented:

	Year Ended December 31,		Change	
	2019	2020	Amount	%
	(in thousands, except percentages)			
Cell therapy	$11,868	$15,769	$3,901	33%
Drug discovery	7,321	7,143	(178)	(2)
Program-related	2,432	3,257	825	34
Total Revenue	$21,621	$26,169	$4,548	21

Our overall increase in revenue primarily was driven by growth among cell therapy customers in the number of instruments and disposables that we sold, new leased instrument placements, and recurring revenues from existing instrument leases, as well as growth in the number of clinical milestone events that our SPL customers achieved that resulted in payments to us. Instrument sales and leases and disposable sales increased in part due to continued high levels of capital invested in companies operating in our target markets. Milestones increased due to the clinical progress of our SPL customers.

Costs of Goods Sold

	Year Ended December 31,		Change,	
	2019	2020	Amount	%
	(in thousands, except percentages)			
Cost of goods sold	$2,499	$2,767	$268	11%

Costs of goods sold increased by $0.3 million, or 11%, from the year ended December 31, 2019 to the year ended December 31, 2020. The increase was primarily driven by higher sales of instruments and disposables. Cost of goods sold did not increase at the same rate as revenue growth because of the growth in milestone payments, which have no associated cost of goods.

Operating Expenses

Research and Development

	Year Ended December 31,		Change	
	2019	2020	Amount	%
	(in thousands, except percentages)			
Research and development	$17,601	$17,744	$143	1%

Research and development expenses increased by $0.1 million, or 1%, from the year ended December 31, 2019 to the year ended December 31, 2020. The increase was primarily driven by increased compensation expense associated with field application scientist headcount increases and applications development headcount increases which combined to add $1.4 million to research and development costs, offset by reduced expenses associated with our CARMA activities of $1.1 million and reduced travel expenses of $0.3 million during 2020 due to the impact of the COVID-19 pandemic.

Sales and Marketing

	Year Ended December 31,		Change	
	2019	2020	Amount	%
	(in thousands, except percentages)			
Sales and Marketing	$7,852	$8,329	$477	6%

Sales and marketing expenses increased by $0.5 million, or 6%, from the year ended December 31, 2019 to the year ended December 31, 2020. The increase was primarily driven by increased compensation expense as a result of headcount increases, commissions on sales, and stock-based compensation which added $1.8 million to sales and marketing costs, partially offset by COVID-19 driven reductions in travel and marketing expenses of $1.3 million. As travel and in-person restrictions instituted due to COVID-19 begin to recede, we expect travel and marketing expenses to increase.

General and Administrative

	Year Ended December 31,		Change	
	2019	2020	Amount	%
	(in thousands, except percentages)			
General and administrative	$6,088	$8,386	$2,298	38%

General and administrative expense increased by $2.3 million, or 38%, from the year ended December 31, 2019 to the year ended December 31, 2020. The increase was primarily driven by increased compensation expense associated with headcount increases, salary increases, and stock-based compensation which added $1.5 million within the general and administrative function as well as $0.6 million of expenses associated with capital raising activities that were not eligible to be capitalized.

Interest and Other Income (Expense)

Interest and Other Income

	Year Ended December 31,		Change	
	2019	2020	Amount	%
	(in thousands, except percentages)			
Interest and other income	$206	$66	$(140)	(68)%

Interest and other income decreased by $0.1 million, or 68%, from the year ended December 31, 2019 to the year ended December 31, 2020. The decrease was primarily driven by declining interest income due to lower market rates in 2020 on our short-term investments.

Interest and Other Expense

	Year Ended December 31,		Change	
	2019	2020	Amount	%
	(in thousands, except percentages)			
Interest and other expense	$681	$826	$145	21%

Interest and other expense increased by $0.1 million, or 21%, from the year ended December 31, 2019 to the year ended December 31, 2020. The increase was primarily driven by the fair value change of common stock warrants, partially offset by fees associated with an early prepayment of debt in 2019 and the lower interest expenses due to a lower average loan balance associated with an early repayment of debt in 2019.

Liquidity and Capital Resources

Since our inception, we have experienced losses and negative cash flows from operations. For the year ended December 31, 2020 and the three months ended March 31, 2021, we incurred a net loss of $11.8 million and $7.1 million, respectively. As of March 31, 2021, we had an accumulated deficit of $102.3 million. To date, we have funded our operations primarily with proceeds from sales of common stock, borrowings under loan agreements and from revenues associated with sales and leasing of our products to customers. As of March 31, 2021, we had cash and cash equivalents and short-term investments of $78.7 million.

We expect to incur additional operating losses in the future as we continue to invest in expanding our business through growing our sales and marketing efforts, continued research and development, product development and expanding our product offerings. Based on our current business plan, we believe the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements for the foreseeable future.

We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect. Our future funding requirements will depend on many factors, including:

- market acceptance of our products;
- the cost and timing of establishing additional sales, marketing and distribution capabilities;
- the cost of our research and development activities and successful development of data supporting use of our products for new applications, and timely launch of new features and products;
- our ability to enter into additional SPLs and licenses for clinical use of our platform in the future;
- changes in the amount of capital available to existing and emerging customers in our target markets;
- the effect of competing technological and market developments; and
- the level of our selling, general and administrative expenses.

If we are unable to execute on our business plan and adequately fund operations, or if the business plan requires a level of spending in excess of cash resources, we will have to seek additional equity or debt financing. If additional financings are required from outside sources, we may not be able to raise such capital on terms acceptable to us or at all. To the extent that we raise additional capital through the sale of equity or debt securities, the ownership interest of our 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. Debt financing, if available, may involve agreements that include covenants restricting our ability to take specific actions, such as incurring additional debt, selling or licensing our assets, making product acquisitions, making capital expenditures or declaring dividends. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise additional capital when desired, we may have to delay development or commercialization of future products. We also may have to reduce marketing, customer support or other resources devoted to our existing products.

Cash Flows

The following table summarizes our uses and sources of cash for the periods presented:

	Year Ended December 31,		Three Months Ended March 31,	
	2019	2020	2020	2021
	(in thousands)			
Net cash provided by (used in):				
Operating activities	$ (8,803)	$ (8,782)	$(5,498)	$ (4,642)
Investing activities	455	(16,578)	(208)	15,692
Financing activities	12,311	28,905	—	48,899
Net increase in cash and cash equivalents	$ 3,963	$ 3,544	$(5,706)	$59,949

Operating Activities

Net cash used in operating activities for the three months ended March 31, 2021 was $4.6 million, and consisted primarily of our net loss of $7.1 million, offset in part by net non-cash expenses of $2.0 million, including stock-based compensation of $1.3 million, warranty liability fair value adjustments of $0.3 million, and depreciation and amortization expenses of $0.3 million. We also had net cash inflows of $0.5 million due to net changes in our operating assets and liabilities. Net changes in our operating assets and liabilities consisted primarily of an increase in deferred revenue of $1.2 million, a decrease in accounts receivable of $0.9 million, partially offset by a $1.4 million decrease in accounts payable and accrued expenses, and a $0.3 million increase in inventory.

Net cash used in operating activities for the three months ended March 31, 2020 was $5.5 million, and consisted primarily of our net loss of $3.1 million, offset in part by non-cash expenses of $0.8 million, including stock-based compensation of $0.5 million. and depreciation and amortization expenses of $0.2 million. We also had net cash outflows of $3.2 million due to changes in our operating assets and liabilities. Net changes in our operating assets and liabilities consisted primarily of a decrease in accounts payable and accrued expenses of $2.7 million, an increase in accounts receivable of $0.7 million and an increase in inventory of $0.5 million, partially offset by a $0.4 million increase in deferred revenue and a $0.1 million increase in the net effect of our right-of-use assets and lease liabilities.

Net cash used in operating activities for the year ended December 31, 2020 was $8.8 million, and consisted primarily of our net loss of $11.8 million, offset in part by net non-cash expenses of $3.9 million, including stock-based compensation of $2.5 million and depreciation and amortization expenses of $1.0 million. We also had net cash outflows of $0.9 million due to net changes in our operating assets and liabilities. Net changes in our operating assets and liabilities consisted primarily of an increase in deferred revenue of $1.6 million and an increase in accounts payable and accrued expenses of $0.4 million, partially offset by a $1.8 million increase in accounts receivable, a $0.9 million increase in inventory, a $0.2 million increase in other current and non-current assets and a $0.1 million increase in the net effect of our right-of-use assets and lease liabilities.

Net cash used in operating activities for the year ended December 31, 2019 was $8.8 million, and consisted primarily of our net loss of $12.9 million, offset in part non-cash expenses of $2.5 million, including stock-based compensation of $1.8 million and depreciation and amortization expenses of $0.6 million. We also had net cash inflows of $1.6 million due to changes in our operating assets and liabilities. Net changes in our operating assets and liabilities consisted primarily of a decrease in accounts receivable of $1.6 million, an increase in accounts payable and accrued expenses of $1.2 million, an increase in deferred revenue of $0.8 million and a $0.5 million increase in the net effect of our right-of-use assets and lease liabilities, partially offset by a $1.9 million increase in inventory and a $0.7 million increase in other current and non-current liabilities.

Investing Activities

Cash provided by investing activities during the three months ended March 31, 2021 was $15.7 million, which was primarily attributable to maturities of marketable securities of $16.0 million, partially offset by purchases of property and equipment of $0.3 million.

Cash used in investing activities during the three months ended March 31, 2020 was $0.2 million, which was primarily attributable to purchases of property and equipment of $0.7 million, partially offset by net purchases and maturities of marketable securities of $0.5 million.

Cash used in investing activities during the year ended December 31, 2020 was $16.6 million, which was primarily attributable to net purchases of marketable securities of $14.5 million and purchases of property and equipment of $2.1 million.

Cash provided by investing activities during the year ended December 31, 2019 was $0.5 million, which was primarily attributable to net purchases and maturities of marketable securities of $1.7 million, partially offset by purchases of property and equipment of $1.3 million.

Financing activities

Cash provided by financing activities during the three months ended March 31, 2021 was $48.9 million, which was primarily attributable to net proceeds from our issuance of common stock of $51.8 million and proceeds of $2.0 million from the exercise of stock options, partially offset by the repayment of the Term Loan of $4.9 million.

There was no financing activity during the three months ended March 31, 2020.

Cash provided by financing activities during the year ended December 31, 2020 was $28.9 million, which was primarily attributable to net proceeds from issuance of common stock of $28.6 million, proceeds from the PPP loan (as defined below) in the amount of $1.4 million and the proceeds of $0.4 million from the exercise of stock options, partially offset by the repayment of the PPP loan of $1.4 million and lease principal payments of $0.1 million.

Cash provided by financing activities during the year ended December 31, 2019 was $12.3 million, which was primarily attributable to net proceeds from issuance of common stock of $12.3 million, proceeds from borrowing under our MidCap Credit Agreement of $5.0 million and the proceeds of $0.1 million from the exercise of stock options, partially offset by the repayment of our previously outstanding borrowing under the MidCap Credit Agreement of $5.1 million.

Long-Term Debt

In November 2019, we entered into a Credit and Security Agreement, or the MidCap Credit Agreement, with MidCap Financial Trust, or MidCap. The MidCap Credit Agreement provided for a $5.0 million Term Loan maturing on November 1, 2024. The Term Loan provided for (i) an interest rate of one-month Libor plus 6.5% with a 1.5% Libor floor, (ii) monthly interest payments, (iii) 30 monthly principal payments of approximately $0.2 million beginning June 2022 and (iv) a 3% final payment fee. The Term Loan was secured by a lien on substantially all of our assets.

In conjunction with our entry into the MidCap Credit Agreement, we issued MidCap a warrant to purchase 71,168 shares of common stock at a price of £1.09081 per share. The warrant is exercisable at any time through the tenth anniversary of issuance. In connection with the MidCap Credit Agreement, we also incurred expenses of $47,300. As of December 31, 2020, the Term Loan had an outstanding principal balance of $5.0 million and $0.1 million of unamortized debt discount. On March 12, 2021, we repaid all amounts outstanding under the Term Loan and terminated all remaining obligations under the MidCap Credit Agreement and incurred fees of approximately $0.3 million associated with early repayment. The unamortized debt discounts and fees were expensed and recorded as interest expense.

In April 2020, we received a loan, or the PPP loan, from Silicon Valley Bank in the amount of $1.4 million under the U.S. Small Business Administration's Paycheck Protection Program, or PPP. The PPP was established as part of the U.S. Coronavirus Aid, Relief, and Economic Security (CARES) Act and provided for potential forgiveness of the loan upon our meeting certain conditions as to the use of the proceeds. The loan provided for interest at 1% and a maturity date of April 2022. In May 2020, we repaid the PPP loan in full.

Contractual Obligations and Commitments

Our contractual obligations and commitments as of December 31, 2020 consisted of operating lease obligations, finance lease obligations and debt obligations under the MidCap Credit Agreement.

As of December 31, 2020, operating lease obligations included $2.0 million in payments due under our lease of office and laboratory space under operating lease agreements that expire in October 2023. As of December 31, 2020, our finance lease obligations consisted of $0.3 million in payments due for our lease of laboratory equipment under a finance lease that expires in April 2023. As of December 31, 2020, debt obligations included the contractually required principal and interest payments payable under our MidCap Credit Agreement, under which borrowings bore interest at a variable rate. On March 12, 2021, we repaid all amounts outstanding under the MidCap Credit Agreement in full.

On May 27, 2021, we entered into an operating lease for up to 67,326 square feet of new office space. The lease for new office space consists of three phases with phase 1 estimated to commence in January 2022, and the lease of all phases is estimated to expire on June 30, 2035. We and the landlord both have a one-time right to terminate phase 3 of the lease associated with 13,543 square feet during a defined time window. We will design and construct the leasehold improvements with the approval of the landlord. The landlord will reimburse us for costs of property improvements up to amounts specified in the lease. The total incremental non-cancellable lease payments under the new lease agreements are approximately $24.5 million through the lease terms.

Purchase orders or contracts for the purchase of supplies and other goods and services are based on our current procurement or development needs and are generally fulfilled by our vendors within short time horizons.

Qualitative and Quantitative Disclosures About Market Risk

Interest Rate Risk

We are exposed to market risk for changes in interest rates related primarily to balances of our cash and cash equivalents and marketable securities. As of March 31, 2021, we had cash and cash equivalents of $78.7 million, which consisted primarily of money market funds and bank deposits. The primary objective of our investment is to preserve principal and provide liquidity. As of March 31, 2021, we had money market funds of $31.2 million and did not hold short-term marketable securities. Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of interest rates in the United States. A 10% change in the level of market interest rates would not have a material effect on our business, financial condition or results of operations.

In November 2019, we entered into the Term Loan with MidCap, which carried a fixed interest rate of 6.5% per annum plus one-month Libor with a 1.5% Libor floor. We repaid the Term Loan in full in March 2021 and no longer have any variable-rate indebtedness.

Foreign Currency Risk

We are exposed to financial risks as a result of exchange rate fluctuations between the U.S. dollar and certain foreign currencies and the volatility of these rates. In the normal course of business, we earn revenue primarily denominated in U.S. Dollars as well as in Euros and British Pounds. We incur expenses primarily in U.S. Dollars as well as in Euros, British Pounds and other currencies. Our reporting currency is the U.S. Dollar. We hold our cash primarily in U.S. Dollars as well as in Euros and British Pounds. We do not expect that foreign currency gains or losses will have a material effect on our financial position or results of operations in the foreseeable future. We have not entered into any hedging arrangements with respect to foreign currency risk. As our international operations grow, we will continue to reassess our approach to managing risks relating to fluctuations in currency exchange rates.

Inflation Risk

We do not believe that inflation has had a material effect on our business, financial condition or results of operations. Our operations may be subject to inflation in the future principally through the costs of components and raw materials associated with our instruments and disposables and the cost of labor.

Critical Accounting Policies and Significant Judgments and Estimates

We have prepared our consolidated financial statements in accordance with generally accepted accounting principles in the United States. Our preparation of these consolidated financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets,

liabilities, revenue, expenses and related disclosures. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could therefore differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our audited consolidated financial statements included elsewhere in this prospectus, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Revenue Recognition

We derive revenue from two primary sources, product sales, which is comprised primarily of instrument and disposables revenue, and leased elements, which is comprised of revenue associated with instrument leases.

For revenue generated pursuant to contracts with customers, we recognize revenue when our customer obtains control of promised goods or services, in an amount that reflects the consideration that we expect to receive in exchange for those goods or services. In determining the appropriate amount of revenue to be recognized as we fulfill our obligations under our arrangements, we perform the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the assessment of the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when, or as, we satisfy each performance obligation. At contract inception, we assess the goods or services promised within each contract, determine which goods or services are performance obligations and assess whether each promised good or service is distinct.

We enter into instrument lease and licensing arrangements that are accounted for using lease accounting rather than accounted for as pursuant to contracts with customers. Under these arrangements, we license to third parties rights to use our products and embedded software. The terms of these arrangements typically include payment to us of one or more of the following: instrument lease fees, and clinical progress milestones and may, under the terms of existing agreements, include regulatory and/or sales milestone payments and/or royalties. Revenue from instrument leases is recognized ratably over the determined contractual term of the lease agreement and revenue from associated milestones is recognized when each specific milestone event is achieved by the customer.

In some product sale arrangements, products and services have been sold together representing distinct performance obligations. In such arrangements we allocate the sale price to the various performance obligations in the arrangement on a relative standalone selling price basis.

The standalone selling price is the price at which an entity would sell a promised good or service separately to a customer. We estimate the standalone selling price of each of the identified performance obligations in our customer contracts, maximizing the use of observable inputs. Our process for determining standalone selling price requires judgment and considers multiple factors that are reasonably available and maximizes the use of observable inputs that may vary over time depending upon the unique facts and circumstances related to each performance obligation. We believe that this method results in an estimate that represents the price we would charge for the product offerings if they were sold separately.

Taxes, such as sales, value-add and other taxes, collected from customers concurrent with revenue generating activities and remitted to governmental authorities are not included in revenue. Shipping and handling costs associated with outbound freight are primarily directly paid by customers as pass-through costs.

Amounts received under lease arrangements prior to revenue recognition are recorded as deferred revenue in our consolidated balance sheets. Amounts expected to be recognized as revenue within the

12 months following the balance sheet date are classified as current portion of deferred revenue in our consolidated balance sheets. Amounts not expected to be recognized as revenue within the 12 months following the balance sheet date are classified as other liabilities in our consolidated balance sheets.

Stock-based Compensation

We maintain an incentive compensation plan under which stock options are granted primarily to employees, consultants and non-employee directors. We measure stock-based compensation expense on the date of grant and recognize the corresponding compensation expense of those awards over the requisite service period, which is generally the vesting period of the respective award. We record forfeitures as they occur.

We estimate the fair value of stock options granted to our employees and directors based on the closing price of our common stock on the AIM, a market operated by the London Stock Exchange, on the grant date, and the resulting stock-based compensation expense, using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of assumptions regarding a number of variables that are complex, subjective and generally require significant judgment to determine. The assumptions include expected volatility using publicly traded peer group companies' common stock, expected dividend yield, risk-free rate of interest and the expected term using the simplified method.

Warrants to Purchase Common Stock

In connection with our Term Loan, we issued a stock purchase warrant to purchase 71,168 shares of common stock. Because the exercise price is denominated in British pounds, we record a liability for the fair value of the warrant at the end of each reporting period, with changes between periods reported in our consolidated statements of operations.

The fair value of the stock purchase warrants is determined based on the Black-Scholes option pricing model or other option pricing models as appropriate and includes the use of unobservable inputs such as the expected term, anticipated volatility and expected dividends. Changes in any of the assumptions related to such unobservable inputs identified above may change the embedded conversion options' fair value; increases in expected term, anticipated volatility and expected dividends generally result in increases in fair value, while decreases in these unobservable inputs generally result in decreases in fair value.

Recent Accounting Pronouncements

A description of recently issued accounting pronouncements that may potentially impact our financial position, results of operations or cash flows is disclosed in Note 2 to our annual consolidated financial statements and interim condensed consolidated financial statements appearing in this prospectus.

Emerging Growth Company Status

We are an "emerging growth company," or EGC, under the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. Section 107 of the JOBS Act provides that an EGC can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. Thus, an EGC can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of the delayed adoption of new and revised accounting standards and, therefore, we will be subject to the same requirements to adopt new or revised accounting standards as private entities.

As an EGC, we may also take advantage of certain exemptions and reduced reporting requirements under the JOBS Act. Subject to certain conditions, as an EGC:

- we are presenting only two years of audited financial statements and only two years of related Management's Discussion and Analysis of Financial Condition and Results of Operations in this prospectus;
- we will avail ourselves of the exemption from providing an auditor's attestation report on our internal control over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act;
- we will avail ourselves of the exemption from complying with any requirement that may be adopted by the Public Company Accounting Oversight Board, or PCAOB, regarding mandatory

audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements, known as the auditor discussion and analysis;

- we are providing reduced disclosure about our executive compensation arrangements; and
- we will not require nonbinding advisory votes on executive compensation or stockholder approval of any golden parachute payments.

We will remain an EGC until the earliest of (i) December 31, 2026, which is the last day of the fiscal year in which the fifth anniversary of this offering occurs, (ii) the last day of the fiscal year in which we have total annual gross revenues of $1.07 billion or more, (iii) the date on which we have issued more than $1 billion in non-convertible debt during the previous rolling three-year period, or (iv) the date on which we are deemed to be a large accelerated filer under the Securities Exchange Act of 1934, as amended, or the Exchange Act.

BUSINESS

Our Mission

We believe in the vast potential of next-generation cell therapies to have a meaningful impact on the millions of patients worldwide who, despite medical advancement, live with unmet medical needs across a variety of diseases. Our aim is to be the premier cell engineering platform technology to support the development of advanced therapeutics.

Overview

We are a leading commercial cell engineering company focused on providing enabling platform technologies to advance innovative cell-based research as well as next-generation cell therapeutic discovery, development and commercialization. Over the past twenty years, we have developed and commercialized our proprietary Flow Electroporation platform, which facilitates complex engineering of a wide variety of cells. Electroporation is a method of transfection, or the process of deliberately introducing molecules into cells, that involves applying an electric field in order to temporarily increase the permeability of the cell membrane. This precisely controlled increase in permeability allows the intracellular delivery of molecules, such as genetic material and proteins, that would not normally be able to cross the cell membrane as easily.

With increased knowledge of cell complexity and systems biology in the scientific community, researchers have sought to leverage or repurpose cell functions and/or machinery for research or therapeutic purposes. The ability to engineer living cells by introducing foreign molecules, such as gene editing systems and transgenes, has led to a revolution in biological research and resulted in numerous biological discoveries. Living human cells can also be engineered *ex vivo*, or outside the body, where they are repaired or reprogrammed to fight disease. In this case, the engineered cell itself is the drug.

Cell therapy has emerged as one of the fastest growing and most promising treatment modalities to address a host of human diseases. Over the past few years, the success of multiple U.S. Food and Drug Administration, or FDA, approved cell therapies providing long-lasting amelioration of symptoms or presence of disease has catalyzed tremendous investment — leading to exponential growth in cell-based therapies being evaluated for therapeutic applications. According to the Alliance for Regenerative Medicine, the combination of gene, cell, and tissue-based therapeutic developers raised an aggregate of $19.9 billion in 2020, up from $13.3 billion in 2018. According to the American Society of Gene and Cell Therapy, or ASGCT, there are now more than 3,400 gene, cell and RNA therapies in development globally, with gene therapy including genetically-modified chimeric antigen receptor T cells, or CAR-Ts, accounting for 53% of those candidates.

Our ExPERT platform, which is based on our Flow Electroporation technology, has been designed to address this rapidly expanding cell therapy market and can be utilized across the continuum of the high-growth cell therapy sector, from discovery and development through commercialization of next-generation, cell-based medicines. The ExPERT family of products includes: three instruments, the ATx, STx and GTx; portfolio of proprietary related processing assemblies, or disposables; and software protocols. We have garnered meaningful expertise in cell engineering via our internal research and development efforts as well as our customer-focused commercial approach, which includes a growing application scientist team. The platform is also supported by a robust intellectual property portfolio with 50 granted U.S. and foreign patents and 76 pending patent applications worldwide.

From leading commercial cell therapy drug developers and top biopharmaceutical companies to top academic and government research institutions, including the U.S. National Institutes of Health, or NIH, our customers have extensively validated our technology. We believe the features and performance of our platform have led to sustained customer engagement. Our existing customer base ranges from large biopharmaceutical companies, including all of the top 10, and 20 of the top 25, pharmaceutical companies based on 2020 global revenue, to hundreds of biotechnology companies and academic centers focused on translational research. As of June 30, 2021, we have placed more than 400 of our electroporation instruments worldwide. During the year ended December 31, 2020, we sold a total of 70 instruments to our customers and leased an additional 16 instruments to our customers.

We believe our ExPERT platform offers a compelling value proposition to our academic and biopharmaceutical customers due to: (i) the ability to use our technology to deliver almost any molecule into almost any cell type, including hard-to-transfect human primary cells, while maintaining high cell viability and function: (ii) the capacity to introduce larger and more diverse payloads compared to other intracellular delivery technologies, such as viral vectors; and (iii) the flexibility to scale up from research to current good manufacturing practices, or cGMP, manufacturing on a single platform — enabling the engineering of cells ranging from tens of thousands of cells to tens of billions of cells in a single transfection run in 30 minutes or less.

We believe our ExPERT intracellular delivery platform provides value across numerous applications in the life sciences market, including the research, discovery, development, and manufacturing of next-generation, cell-based therapeutics, as well as in biomanufacturing, such as transient protein production for drug discovery and manufacturing of other proteins, including biological therapeutics, viral vectors and vaccines and small molecule drug discovery.

Our ExPERT technology platform is being used in the clinic to support the development of next-generation cell therapy approaches to treat human disease. Following the successful clinical development leading to FDA approvals of CAR-T cell therapies in blood-based cancer, developers have focused on improving efficacy, lowering the cost of manufacturing and/or expanding engineered cell therapies into new indications, such as solid tumors. To address these goals, the *ex vivo* cell therapy industry has trended towards developing more complex therapies that require sophisticated engineering and gene manipulation as well as the use of different starting cell types.

Often as a product candidate moves from preclinical research to clinical trials and then commercial scale up, drug developers must transition to different technologies, which can create significant financial, technical, and regulatory burdens for customers and lead to significant timeline delays due to re-optimization requirements. We believe that our ExPERT platform enables our customers to engineer cells safely, efficiently, and with high reproducibility, cell viability and potency throughout the stages of product development and commercialization. This ability to use a single platform provides significant cost and time savings for our customers and accelerates the delivery of new treatments to patients.

In addition, we are committed to continued research and development investments in technology and scientific innovation to maintain our market leadership position. For example, we intend to introduce new instruments and processing assemblies, or PAs, under the ExPERT brand that allow us to meet the evolving needs of customers and move into new applications to better serve high growth segments of the cell therapy market, including allogeneic CAR-T, engineered stem cells for inherited disorders, engineered primary cells for treatment of solid tumors and development of personalized neoantigen approaches.

We believe we are well positioned in this market given the manufacturing supply constraints and payload size limitations of other delivery methods, such as viral vectors. Given our value proposition in non-viral delivery, we have established strategic relationships, in the form of Strategic Platform Licenses, or SPLs, with a growing number of leading cell therapy developers as they work to bring next-generation cell therapies into and through the clinic and advance those candidates to potential commercialization. These SPLs provide us with the ability to secure downstream program-related pre-commercial milestones and, in most cases, commercial sales-based payments. In addition, from our SPL customers, we receive both annual research and clinical license fees as well as payments from sales of our proprietary disposables as recurring revenue streams. Given growth in the cell therapy pipeline and increased investment in the space, we estimate that the number of potential SPLs for us will increase from approximately 50 today, based on our estimate of the companies that are currently developing engineered cell therapies, to almost 140 by 2026, based on our estimates of growth in the cell therapy pipeline, growth in the number of therapeutic delivery entrants into the market and ongoing shift to non-viral delivery.

We have entered into 13 SPLs with commercial cell therapy developers since January 1, 2017, of which 12 have been publicly announced as shown in the table below.

Partner	Therapeutic Indication	Date Announced	Most Advanced Stage of Clinical Development*
CRISPR/Casebia Therapeutics	Hemoglobin-related diseases and severe combined immunodeficiency (SCID)	March 14, 2017	Phase 1/2
CRISPR Therapeutics	Immuno-oncology	November 9, 2018	Phase 1
Precision Biosciences	Oncology	November 14, 2018	Phase 1/2
Kite Pharma (now Gilead)	Oncology (CAR-T)	March 1, 2019	Preclinical
Editas Medicine	Sickle cell disease and beta-thalassemia; Immuno-oncology	October 7, 2019	Phase 1/2
VOR Biopharma	Oncology	November 21, 2019	Phase 1/2
KSQ Therapeutics	Oncology	December 4, 2019	Preclinical
Allogene Therapeutics	Oncology (CAR-T)	March 24, 2020	Phase 1/2
Caribou Biosciences	Oncology	May 7, 2020	Phase 1
Apeiron Biologics	Oncology	July 8, 2020	Phase 1b
Myeloid Therapeutics	Oncology	January 11, 2021	Phase 1
Celularity	Oncology	May 25, 2021	Preclinical

* Includes only product candidates that have been publicly disclosed by the customer.

In addition to SPLs, we provide some customers, which could be academic institutions or commercial entities, with access to our instruments through licenses for research-only purposes, without the rights or ability to produce material for clinical use, or for use in the clinical evaluation and development of a therapeutic product intended for human use. We refer to these agreements as research licenses and clinical licenses, respectively.

Under these SPLs and other license agreements with our customers, in exchange for an annual license fee per instrument, we provide our customers with non-exclusive access to our:

- cGMP-compatible platform, which enables early-optimization and scale-up from preclinical research into clinical development using our intellectual property portfolio;
- FDA Master File and Technical Files, which may accelerate and streamline development and reduce regulatory risk in the creation and development of our partners' therapeutic drug candidates;
- experienced commercial team of sales personnel and application scientists who work directly with our customers to solve cell engineering problems; and
- continuous know-how and cell engineering process improvements.

Of the over 75 clinical program licenses associated with our existing SPLs, more than 15% are in the clinic, meaning they have at least an FDA-cleared investigational new drug application, or IND. An IND is a request for authorization from the FDA to administer an investigational new drug to humans. An IND must become effective before human clinical trials may begin. The IND automatically becomes effective 30 days after receipt by the FDA, unless the FDA, within the 30-day time period, raises safety concerns or questions about the proposed clinical trial. Clinical trials then involve the administration of the investigational product to human subjects under the supervision of qualified investigators and are

conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined. In Phase 1, the investigational product is initially introduced into healthy human subjects or patients with the target disease or condition. These trials are designed to test the safety, dosage tolerance, absorption, metabolism and excretion of the investigational product in humans, the side effects associated with increasing doses, and, if possible, to gain early evidence on effectiveness. In Phase 2, the investigational product is administered to a limited patient population with a specified disease or condition to evaluate the preliminary efficacy, optimal dosages and dosing schedule and to identify possible adverse side effects and safety risks. Multiple Phase 2 clinical trials may be conducted to obtain information prior to beginning larger and more expensive Phase 3 clinical trials. In Phase 3, the investigational product is administered to an expanded patient population to further evaluate dosage, to provide statistically significant evidence of clinical efficacy and to further test for safety, generally at multiple geographically dispersed clinical trial sites. These clinical trials are intended to establish the overall risk/benefit ratio of the investigational product and to provide an adequate basis for product approval.

Assuming successful completion of all required testing in accordance with all applicable regulatory requirements, the results of product development, nonclinical studies and clinical trials are submitted to the FDA as part of a biologics license application, or BLA, requesting approval to market the product for one or more indications. The BLA must include all relevant data available from preclinical and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls and proposed labeling, among other things.

Our 13 SPLs have the potential to generate over $950 million in pre-commercial milestone payments if all of the licensed programs were to achieve regulatory approvals. In addition, under the SPLs, we typically have the potential to receive significant, sales-based commercial payments for approved products. However, as described above, clinical development involves a lengthy and expensive process with an uncertain outcome, and therefore our customers may never receive FDA or other regulatory approval for their product candidates covered by their SPL agreements with us, in which case we will not receive this amount of pre-commercial milestone payments or the sales-based commercial payments or royalties contemplated by our agreements.

Our current strategic partners have demonstrated success progressing next-generation cell therapies through the clinic, which has provided growing validation supporting our ability to facilitate complex cell engineering in a clinical setting. Further, our platform is supported by an FDA Master File. A Master File is a submission to the FDA with confidential detailed information about our products, methods, processes and data, which can be referenced by our customers to support their own regulatory filings, which we believe has the potential to reduce certain risks and challenges in connection with our customers' regulatory submissions and development timelines. Outside of the United States, similar Technical Files are in place or being pursued to support our customers' regulatory processes.

For the year ended December 31, 2020, one cell therapy company with which we have entered into an SPL accounted for 15% of our total revenue, and our six largest such customers accounted for an aggregate of approximately 40% of our total revenue for the year through a combination of instrument license fees, milestones realized and processing assembly revenue. As the number of SPL customers

increases, the portion of our total revenue derived from any one or a limited number of SPL customers will decline accordingly.

We aim to build a large, diversified portfolio of SPLs that enable us to participate in the economics of the near-term and long-term success of our partners' drug candidates. We estimate that the total addressable market opportunity for our ExPERT platform, based on the potential for current SPLs, was approximately $9 billion in 2020. We expect this market to grow to over $24 billion by 2026 driven by growth in the *ex vivo* cell therapy pipeline and a shift to use of non-viral delivery technologies as described in more detail under "— Our Market Opportunity."

Our Competitive Strengths

We believe our industry leadership position and continued growth will be driven by the following competitive strengths:

- ***Our proprietary technology platform unlocks the significant potential of advanced therapeutics***. We have built our ExPERT platform to advance the growing demands for non-viral delivery and next-generation cell and gene engineering approaches. Our platform technology enables delivery of almost any molecule into almost any cell type. We believe our platform leads the industry in performance (measured by consistency, efficiency, viability, flexibility, and scale). Our platform is further supported by a robust intellectual property portfolio with 50 issued U.S. and foreign patents and 76 pending patent applications worldwide.
- ***Comprehensive, high-performance transfection platform***. We believe our ExPERT platform offers a unique value proposition given the flexibility to scale up from research to cGMP manufacturing on a single platform — enabling the engineering of cells ranging from tens of thousands of cells to tens of billions of cells in a single transfection run in 30 minutes or less. Our long-term internal engineering expertise is supplemented by our customer focused approach — with a growing application scientist team working with our customers across increasingly diverse applications.
- ***Positioned as a leader in the large and growing next-generation cell therapy market with the ability to capitalize on rising demand for non-viral approaches.*** We believe we are well positioned to capture increased market share within the large and growing next-generation cell therapy market. Since the FDA approved the first engineered CAR-T cell therapies to treat cancer in 2017, the number of cell therapy candidates being evaluated pre-clinically and clinically has grown exponentially. We expect growth to continue given the remaining high unmet medical need in cancer and other chronic conditions and predict increased investments in cell therapy product development across a variety of human diseases. We expect to grow our market share given the high performance of our platform and regulatory support through our FDA Master File as well as the ongoing shift to non-viral delivery as the industry has trended towards developing advanced cell-based therapies with complex engineering strategies to improve efficacy, reduce time to patient treatment and expand into new indications.
- ***Innovative partnership business model focused on value creation and shared success***. Our SPLs allow us to participate in the value creation of our customers' programs via pre-commercial milestones and in nearly all cases commercial sales-based payments. We intend to continue to build a portfolio of strategic partnerships with cell therapy developers, which provide us with a growing, diversified source of potential downstream revenue.

  In addition to the high performance and flexibility of the ExPERT platform, we believe our partnership model further reduces clinical risk and development timelines for our cell therapy partners. By entering into an SPL with us, for example, our partners gain access to our FDA Master File to support their IND-enabling studies and potentially shorten clinical development. Our FDA Master File was originally established in 2002 and has been continuously updated as platform improvements are implemented to support different applications and cell types. The FDA Master File and equivalent Technical Files in other countries can be referenced by our partners to support their own regulatory submissions with the goal of accelerating regulatory submissions processes for our partners. To date, our FDA Master File and Technical Files have been referenced by our customers in over 30 clinical trials.

- ***First-mover advantage has yielded broad-based adoption, with commercial model supported by top-tier customers.*** Our business model is supported by more than 20 years of investment and experience and has enabled us to cultivate long-standing and collaborative relationships with our significant and growing customer base. From leading commercial cell therapy drug developers and top biopharmaceutical companies to top academic and government research institutions, including the NIH, our customers have extensively validated our technology. We believe the features and performance of our platform have led to sustained customer engagement. Our existing customer base includes large biopharmaceutical companies, including all of the top 10, and 20 of the top 25, pharmaceutical companies based on 2020 global revenue. We now have 13 SPLs with commercial cell therapy developers, which together provide licenses for over 75 programs, of which currently more than 15% have advanced into clinical trials.
- ***Recurring revenue model provides high visibility, with drivers of potential long-term upside.*** Our business model enables us to generate substantial revenue from five sources: sales of instruments and disposables to new customers; additional sales of instruments and disposables to our existing installed base; annual instrument license fees from cell therapy customers; pre-commercial milestones under SPLs; and potential commercial sales-based payments under SPLs. We generate high recurring revenue from our ExPERT instrumentation licenses and disposable sales, which provides visibility into future near-term revenue. Over the last three years, annual renewals of instrument licenses were greater than 80% on average — and for our SPLs were near 100%. In addition to recurring revenue, we have the potential to receive meaningful pre-commercial and commercial payments under SPLs if our customers are successful in advancing programs through the clinic and into the commercial stage. In aggregate, we have the potential to receive over $950 million in pre-commercial milestone payments under our current SPLs, if all of the programs were to receive regulatory approvals.
- ***Founder-led leadership team and workforce with deep domain knowledge.*** Our management team combines strong and broad subject matter expertise with a demonstrated history of commercial and operational execution. Moreover, our workforce has deep domain knowledge across a range of scientific, engineering, regulatory and business disciplines. We have supplemented our diverse technical experience by assembling a deep operational team with expertise in manufacturing, legal, sales, marketing, customer service and finance. We believe the team we have assembled with talent from multiple disciplines and a science- and customer-focused culture represents a significant competitive advantage for us. As of March 31, 2021, of our 65 full-time employees, 45 have advanced degrees, including 19 with Ph.D. degrees.

Our Growth Strategies

The key elements of our growth strategy include:

- ***Establish ExPERT as the standard of non-viral delivery technology in the rapidly growing cell therapy market.*** We are committed to continued investment in technology and scientific innovation to maintain our market leadership position. We believe that the adaptability of, and continuous improvement in, our single-use disposable product portfolio via recent product launches exemplifies our partnership with our customers to meet varying processing volume requirements, for example. We plan to further invest in our current platform and potentially introduce new instruments and PAs that allow us to meet the evolving needs of customers and move into new applications to better serve high-growth segments of the cell therapy market.
- ***Drive customer adoption and accelerate revenue growth through execution and expansion of our strategic marketing initiatives.*** We aim to accelerate our revenue growth by investing in our sales and application scientist teams to fuel growth in our underlying ExPERT platform and foster and develop new customer and SPL opportunities. We also see opportunity for geographic expansion, particularly in Asia, and the potential to further penetrate non-commercial customer accounts, including translational academic centers globally, which

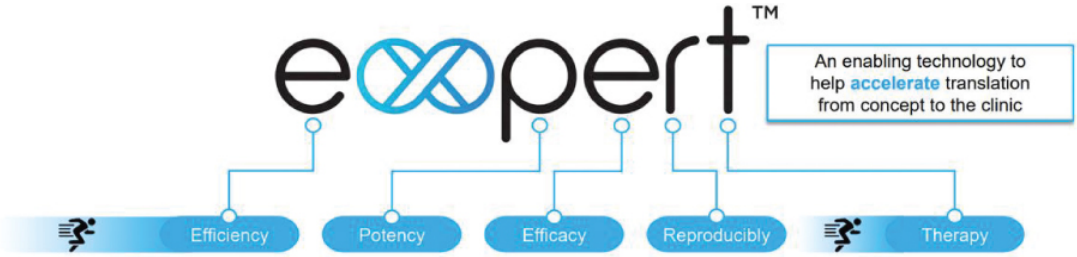
we believe will represent “hotspots” driving innovation that favor non-viral extracellular delivery technology. Finally, we expect to continue to cultivate academic collaborations and grow our application scientist team to gain exposure to and experience with up and coming cell and gene engineering approaches.

- ***Increase our number of SPLs***. We plan to continue to pursue SPLs with target customers, including leading biopharmaceutical companies focused on cell therapies. We believe that there are a substantial number of potential SPL opportunities in the market and have seen a commensurate increase in our SPL discussions over the past several years. Given growth in the cell therapy pipeline and increased investment in the space, we estimate that the number of potential SPLs for us will increase from approximately 50 today, based on our estimate of the companies that are currently developing engineered cell therapies, to almost 140 by 2026, based on our estimates of growth in the cell therapy pipeline, growth in the number of therapeutic delivery entrants into the market and ongoing shift to non-viral delivery. We plan to aggressively pursue these opportunities and establish new SPLs by increasing business development activities and demonstrating our technological advantages over alternative methods.
- ***Commercialize our VLX Large-Scale Transfection System under the ExPERT brand to expand our capabilities into additional attractive market verticals, including large-scale bioprocessing and cell therapy applications*.** Our VLX Large-Scale Transfection System provides the ability to transfect up to approximately 200 billion cells, or ten times the number of cells and/or volume of the GTx/STx, in less than 30 minutes. The VLX has been sold to a limited number of customers for specific large-scale applications in a first generation design. We plan to align the current design of the VLX with the design, capabilities and branding of our ExPERT instruments, as well as make specific product enhancements that would be unique to the VLX. As part of this initiative, the VLX will be rebranded under the ExPERT brand as the “VLx.” We believe that improving the design of the VLX and commercializing it under the ExPERT brand with an updated state-of-the art design, adding an on-board user interface, and developing associated cGMP compatible large-scale disposables and software protocols, would allow us to enter into large-scale bioprocessing applications including viral vector production in suspension cell cultures and rapid production of proteins, including monoclonal antibodies — as well as facilitate further scale up in allogeneic (or donor-derived) cell therapy approaches.
- ***Enhance manufacturing and research and development capabilities by investing in capacity as well as automation and process development.*** We intend to expand our manufacturing infrastructure. We plan to invest in our capacity to support increased demand for our instruments and disposables as our customers move further through the clinic and toward commercialization. We also plan to invest in the automation and final assembly of our PAs for greater control and for enhanced flexibility as our partners expand the use of our technology. Additionally, we plan to expand our research and development capabilities by investing in process development via expanding laboratory space, increasing capital investment in laboratory equipment and supplies and growing our scientific team — to continue to align our capabilities with the requirements of our customers and potentially support new product development.
- ***Opportunistically pursue strategic investments, partnerships and acquisitions*.** Our revenue growth to date has been organically driven by the addition of customers to our growing installed base of ExPERT users and expansion of our product offerings to those customers. We may consider opportunistic investments, partnerships and acquisitions that we believe will complement our product platform, allowing us to enter new markets and applications to enhance our growth profile. We also intend to establish new industry partnerships, enabling us to remain at the forefront of cell engineering trends and continue to collaborate with customers to accelerate the development and commercialization of new medicines.

Our Technology Platform

The foundation of our technology is our proprietary and patented Flow Electroporation platform, which we have developed and optimized over more than 20 years. Electroporation, or electro-permeabilization, leverages the fundamental properties of cell membranes, the ability to create

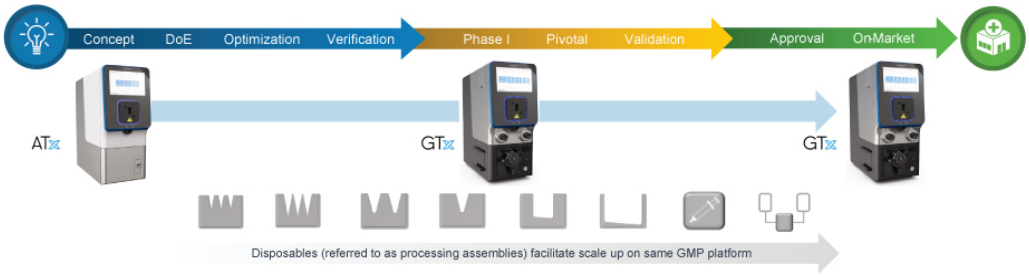
reversible permeability in the presence of an electric charge, as a universal method to introduce foreign molecules, or transfect, eukaryotic cells. Electroporation can be applied to almost any eukaryotic cell type to deliver a broad range of molecules, including DNA, mRNA, siRNA and proteins. Our patented Flow Electroporation platform is fully scalable and can support small-scale research and development through to large-scale cell engineering for development of commercial therapeutics.



Our technology platform is marketed under the ExPERT brand. The value of our ExPERT brand starts with Efficiency — with high delivery **Efficiency**, users can achieve **Potency**, with high Potency, users improve their chances of therapeutic **Efficacy**, and if this can be repeated, **Reproducibly** from patient to patient, users have a successful **Therapy**. By delivering high efficiency at any scale, the ExPERT platform is designed to improve our customer's ability to achieve the required therapeutic index, enabling accelerated, cost-efficient translation of complex cellular therapies from research to the clinic.

Our ExPERT platform consists of three instruments, the ATx, STx and GTx, which use a broad range of PAs, or disposables, of different volumes to enable scalable electroporation from tens of thousands to billions of cells to facilitate the translation of complex cellular therapies from concept to the clinic, in support of the intended therapeutic commercialization.

Our ExPERT family of instruments and disposables supports scale-up for cell therapy



Overview of our ExPERT platform

Our Flow Electroporation Technology was designed to meet the stringent demands of clinical use — namely, the ability to safely and reproducibly modify a broad range of primary human cells with high efficiency, low cytotoxicity, and at the scale required to enable the treatment of patients across a diverse range of diseases.

We believe the current ExPERT instrument family represents the next generation of our clinically validated, electroporation technology for complex and scalable cellular engineering. By delivering high transfection efficiency with enhanced functionality and ease of use, the ExPERT platform delivers the high-end performance that we believe is essential to enabling the next wave of biological and cellular therapeutics. The combination of the ExPERT instruments, associated disposables and universal electroporation buffer, provides researchers, production scientists, and cGMP facilities with a solution to transfect cells with high efficiency, viability and consistency, which are the three attributes that are consistently ranked by our customers as the top requirements when choosing a cellular or gene engineering platform for clinical use. We believe our ExPERT platform is seen as a critical enabling technology by many of the leading cell therapy companies, helping them to achieve their program goals

and milestones expeditiously. Our instruments are sold or licensed for research use and licensed for clinical use, while the associated disposables and electroporation buffer are sold to support preclinical research and development work and are compatible for integration into cGMP manufacturing environments.

We believe that the following four components of our platform have allowed us to successfully address the increasing complexity of cellular engineering approaches in the industry:

- Instrument design;
- Electroporation and cell handling protocols;
- PAs (disposables); and
- Universal electroporation buffer formulation (consumables).

In addition, we have implemented a global scientific and regulatory support strategy for our customers that is designed to accelerate clinical development and streamline the regulatory submission process, thereby potentially saving time and reducing cost and development risk.

We believe several factors differentiate our ExPERT platform and will continue to be significant drivers of customer adoption, including:

- **High performance electroporation**. Our range of ExPERT instruments can be used to transfect almost any cell type, including hard-to-transfect human primary cells and induced Pluripotent Stem Cells, or iPSCs. Transfection efficiency using our platform has consistently been at least 90% for most cell types (using mRNA) with minimal disturbance to the cell, resulting in high cell viability of at least 90%. This performance is documented by multiple peer-reviewed publications demonstrating that transfecting cells using our platform does not significantly alter the cell phenotype, natural expression of cell surface receptors or proliferative capacity.
- **Scalability**. Our Flow Electroporation Technology can engineer cells ranging from tens of thousands of cells to tens of billions of cells in a single transfection run in 30 minutes or less, without requiring costly re-optimization or sacrificing performance on scale-up. We offer a range of PAs to support preclinical research and development work and manufacturing in cGMP environments, which allows customers to seamlessly scale-up in a sterile process format that can be integrated into their workflow.
- **Flexibility to deliver larger and more diverse payloads.** While adeno-associated virus, or AAV, lentivirus and other vectors have increasingly been used in *ex vivo* and *in vivo* gene therapies, viral vectors carry inherent capacity limitations. For example, the most commonly used Cas9 nuclease, spCas9, and a sgRNA are approximately 4.2 kilobase, or kb, in size, but a single AAV only allows for approximately 4.5 kb to be packaged within it, making it difficult to include other elements (e.g., multiple sgRNAs if multiple edits are required or DNA templates if correction is the goal) to ensure the delivery of the required elements into the cells and meet desired gene-editing objectives. A kb is a unit of measurement in molecular biology equal to 1,000 base pairs of DNA or RNA. Our platform enables larger molecules to be delivered into the cells (or multiple different molecules to be co-loaded into cells). For comparison, we are able to deliver large molecules, including CRISPR RNPs which can be 40 nanometers or higher in diameter.
- **Designed for Clinical Use.** The ExPERT GTx platform has been specifically designed for use in a cGMP clean room setting for manufacturing of cell therapies intended for use in patients. The platform integrates features such as electronic documentation and electronic signatures designed to be consistent with the FDA expectations under 21 CFR Part 11, (which may be critical to the regulatory compliance process for certain customers) and networking capability for automated transfer of electronic batch records of manufacturing runs to a centralized data management solution. As part of our global regulatory strategy, our customers have access to our FDA Master File or equivalent Technical Files with the regulatory agencies in the countries where they will seek to conduct clinical trials, potentially streamlining the regulatory submission process and helping to reduce time and cost of clinical trials.

Industry Background

The promise of cell therapy

The field of cell therapy has emerged as one of the fastest growing and most promising treatment modalities to address a host of human diseases. In 2017, the FDA approved the first *ex vivo* CAR-T cell therapies, Kymriah and Yescarta, developed and commercialized by Novartis and Kite Pharma (now Gilead), respectively, offering a potentially transformative option to a cohort of relapsed and refractory hematological cancer patients who had previously exhausted all other therapies. The success of these therapies has catalyzed significant investment in advanced cell therapies. According to the Alliance for Regenerative Medicine, gene, cell, and tissue-based therapeutic developers raised an aggregate of $19.9 billion in 2020, up from $13.3 billion in 2018. According to the ASGCT, there are now more than 3,400 gene, cell and RNA therapies in development globally, with gene therapy including genetically-modified CAR-Ts accounting for 53% of those candidates.

We believe there are several key factors driving the meaningful investment and subsequent explosion in gene and cell therapy trials globally, including:

- success of multiple FDA-approved cell therapies providing long-lasting amelioration of symptoms or even cure of disease;
- numerous advancements in various cell engineering systems, such as the discovery and adaption of targeted gene editing systems including CRISPR, and development of next-generation intracellular delivery approaches;
- improved understanding of how to monitor and manage impacts of adverse events (including immune response to delivery vectors) as clinicians have gained more experience in treating patients with currently approved gene and cell therapies; and
- successful demonstration of proof-of-concept efficacy of next-generation *in vivo* and *ex vivo* gene and cell therapy-based approaches as these therapies have begun to be explored in humans.

As a result of these advancements in the industry, cellular engineering programs that deliver genetically modified cells capable of treating complex human diseases are rapidly increasing in number and complexity.

Background on cell therapy

Cells represent the smallest discrete unit of life and are the building blocks of all living organisms, from single cell organisms — such as amoebas — to organisms as complex as humans, which are made up of over 30 trillion cells. Eukaryotic cells are characterized by three basic components: (i) the cell membrane, which controls movement of molecules into and out of the cell, (ii) a nucleus, which typically houses the cell's DNA and is where RNA synthesis occurs, and (iii) the cytoplasm, or the fluid inside the cell.

With increased knowledge of cell complexity and systems biology in the scientific community, researchers have been able to engineer, or manipulate, cells in order to leverage or repurpose cell functions and/or machinery. The ability to deliver foreign molecules into living cells — either isolated from an organism (*ex vivo*), within an organism (*in vivo*), or to cells outside of their normal biological context, such as those grown in culture (*in vitro*) — has led to a revolution in biological research and resulted in numerous biological discoveries. Cell therapy is generally used to refer to *ex vivo* manipulation of cells for therapeutic purposes. Living human cells are engineered outside the body (*ex vivo*) where they are repaired or reprogrammed to fight disease. In this case, the cell itself is the drug.

Both academic and commercial research has focused on novel strategies to improve efficacy, reduce time to treatment, and expand the use of cell therapies into new indications. Given the level of investment, the field is evolving rapidly to next-generation approaches with increasing complexity. For example:

- **Development of off-the-shelf therapies.** Efforts have focused on using allogeneic donor cells or cell lines to develop "off-the shelf" approaches for CAR-T therapies. Use of donor cells versus autologous patient cells could potentially improve time to treatment, lower cost of

treatment, and improve therapeutic efficacy by using healthy cells as a starting point, but may require “knock-out” or “knock-down” of additional genes to prevent patients from rejecting donor cells.

- **Use of next-generation chimeric receptors or engineered TCRs to expand the cell therapy toolbox.** Next-generation synthetic receptors or engineered T-cell receptors, or TCRs, have been developed and introduced into cells to improve antigen recognition and reduce the potential for antigen escape (the ability to recognize multiple antigens). Engineered TCRs, for example, enable cells to recognize intracellular proteins.
- **Knocking out or knocking down expression of certain genes to improve efficacy**. A promising strategy for next-generation therapies include “knocking out” or “knocking down” genes to improve the efficacy of cell therapies. For example, cancer cells have evolved to overexpress programmed death-ligand 1, which binds to programmed cell death protein 1, or PD1, on T-cells and helps evade recognition. Therefore, knocking out the PD1 “checkpoint” on T-cells could increase the ability for engineered T-cells to recognize the cancer cells.
- **Use of other primary cell types**. Focus of cell therapy in immuno-oncology applications has expanded to include other immune effector cells beyond T-cells (including NK cells, T-regs and gamma delta T-cells). Similarly, the treatment of complex genetic diseases using gene correction of stem cells, such as hematopoietic stem cells, or HSCs, and their derivatives and iPSCs will also require correction of multiple mutations with increasing fidelity and improved efficiency.
- **Driving towards personalized cell therapy**. Another promising approach is neo-antigen-based therapies, where T-cells are engineered to target each patient’s highly specific protein expression signatures identified on their cancer cells. To achieve this, multiple unique T-cell receptors directed against the patient’s own tumor antigens are identified, cloned and inserted back into the patient’s own T-cells for reinfusion. Such neoantigen T-cell receptor engineered-T-cell approaches hold promise for the future of personalized cellular immunotherapies and could fundamentally change the cancer treatment paradigm.

In addition, the availability of gene editing systems such as CRISPR, which allows scientists to directly alter DNA and RNA at targeted locations, has meaningfully accelerated technological advancements in cell therapy. For instance, several triple edited *ex vivo* cell therapies have now entered clinical trials and some companies have demonstrated proof-of-concept with as many as six edits to a single cell. These are just a few examples of the increasing complexity of the cellular engineering required to deliver the next generation of cell therapies that show great promise for treating previously untreatable diseases. We believe that our ExPERT platform can address each of these next-generation approaches because of our ability to facilitate the evolving complexities described above.

Approaches to intracellular delivery

At a high level, there are two methods of introducing molecules into cells: carrier (or biological) based (e.g., the use of engineered viruses, vesicles, nanocarriers and nanoparticles) and membrane-disruption based or physical approaches, such as electroporation. Both of these approaches seek to introduce “cargo” into the cell interior without damaging the cell or producing an unintended impact to cell function. Carrier-based approaches serve to package the cargo to prevent it from degradation while simultaneously gaining access to the cell in order to deliver the intended cargo. Physical approaches seek to disrupt the cell membrane, which facilitates passage of molecules across the cell membrane, or involve direct penetration of the membrane.

The type of molecules that scientists can now introduce into cells — also referred to as payload — is highly diverse. Each payload type carries unique challenges including size variability, shape, architecture, and chemical properties, which has led to an increase in the number of strategies available for intracellular delivery of molecules.

The following chart compares the advantages and disadvantages of viral-mediated transfection and electroporation:

	Transfection Method	Description	Advantages	Disadvantages
Biological	**Virus mediated**	Delivery via a viral vector, often known as “transduction”	High efficiency Easy to use (simplicity of infection) Effective on dissociated cells	Labor intensive, time consuming and significant facilities cost Insertional mutagenesis, immunogenicity, and cytotoxicity Packaging capacity limitations
Physical	**Traditional electroporation**	Electrical pulses to produce electrically induced membrane permeability to allow for payload delivery	Easy to perform All cell types High transfection efficiency	Potential for low cell viability Instrument investment

For gene and cell therapies, engineered viral vectors have historically been the most common delivery technique. Viral-mediated gene delivery uses the inherent capacity for viruses to infect human (or other) cells and inject DNA that the virus carries into cells. Commonly used viral methods of gene transfer include retrovirus, lentivirus, adenovirus, adeno-associated virus, the herpes virus and the Epstein-Barr virus.

There are several reasons why early approaches have utilized viral vectors, including that:

- viruses are widespread in humans — more than 200 are known to cause disease in humans — and are naturally efficient at delivery of genetic information into targeted cells;
- viruses can be easily engineered to deliver the genetic material of interest, can be engineered to not self-replicate, and in the case of some viruses (such as lentivirus and wild-type AAVs), integrate their DNA into the host genome, thereby driving sustainable expression of the gene of interest; and
- viruses were one of the first methods used in early gene therapy trials, with the first generation of lentiviral vectors created in the mid-1990s.

Traditionally, first-generation approaches modified T-cells with a virus-mediated chimeric antigen receptor, or CAR. For example, Kymriah and Yescarta use lentivirus and retrovirus, respectively, for delivery of the CAR construct. While viral vectors, in particular lentivirus, have formed the bulk of delivery methods for such early cell therapies, AAV has become the viral vector of choice, particularly for *in vivo* gene therapy.

The following chart compares the advantages and disadvantages of the major viral vectors used in gene therapy:

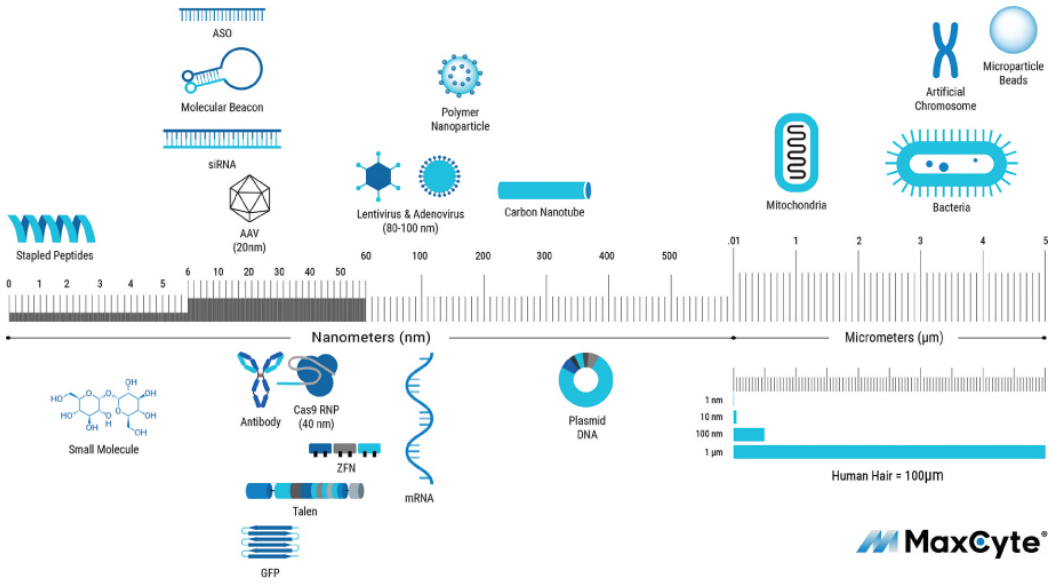
Viral Vector	Genetic Material	Insert Capacity	Host Range	Advantages	Disadvantages
Adenovirus	dsDNA	< 7.5 kb	Broad host range; infective for many cell types	No integration Large range of cell types High transduction efficiency	No integration Relative insert capacity constraints May initiate strong inflammatory response

Viral Vector	Genetic Material	Insert Capacity	Host Range	Advantages	Disadvantages
AAV	ssDNA	< 5kb	Broad host range; infective for many cell types	Chromosomal integration	Small packaging capacity
				Nonimmunogenic	Immune response
				Nonpathogenic	Slow expression onset
Retrovirus	RNA	8 kb	Broad host range	Long-term expression	Transduces only dividing cells
				Persistent gene transfer with dividing cells	Integration might induce oncogenesis in some applications
Lentivirus	RNA	8 kb	Ecotropic, amphotropic	Long-term expression	Exposure to replication competent lentiviruses
				Does not require cell division for proviral integration	Random integration could cause insertional mutagenesis
				Low cytotoxicity	Mobilization of the vector by endogenous retroviruses in the genomes of patients

As the cell therapy market continues to evolve, more complex approaches are being deployed to improve efficacy, reduce time to patient and expand the application of cell therapy to additional indications. Use of viral vectors carry several challenges, however, especially given the increase in complexity of these “next-generation” *ex vivo* cell therapy approaches, such as:

- **Viral payload limitations**. Many methods of gene manipulation require insertion of relatively large molecules, including proteins such as CAS9 RNP for CRISPR or plasmids. Viral vectors, particularly AAV, have fundamental payload capacity limitations, curtailing their utility for complex engineering systems. Additionally, the industry has continued to shift to using complexed molecules including combination of proteins and mRNA which cannot be delivered by viral means.

The picture below shows the size ranges of various kinds of molecules that can be inserted into cells.



- **Concerns around toxicity**. Given viruses used in gene therapy by default infect human cells, there continue to be questions around the safety profile associated with viruses. In

particular, there are concerns over the potential for random integration of lentivirus and the widespread presence of neutralizing antibodies against many AAV serotypes used in gene therapies.

- **Costs and time to market**. Concerns exist regarding viral vector manufacturing capacity and the cost associated with viral development and manufacturing. According to BioPlan Associates, a market research firm, lead times at contract manufacturing organizations are averaging 18 months to obtain a cGMP viral manufacturing slot and six to nine months for requisite viral safety testing. Additional bottlenecks arise from demand for viral approaches, which has led to subsequent demand for cGMP plasmids. The ongoing COVID-19 pandemic has further exacerbated demand, particularly for adenovirus, and suspension cells, which are difficult to engineer at high volume. Concurrently, regulatory scrutiny and product characterization requirements are increasing as more gene and cell therapy products reach the clinic, as noted by the FDA's revised guidelines for viral vector analytics in early 2020.

Novel intracellular delivery approaches are needed to support the increased complexity of the burgeoning cell therapy pipeline. Characteristics include reducing immunogenicity risk of viral vectors, the need to drive high efficiency of multi-molecule delivery while maintaining high cell viability and potency, reducing the risk of potential genotoxicity of multiplex editing (potential for translocations), the need to deliver a large number of molecules at scale, the ability to deliver to a large number of cell types in a time efficient matter, and the need to manufacture in a cGMP environment — all at a manageable cost.

Electroporation as a mechanism of non-viral delivery

Electroporation background

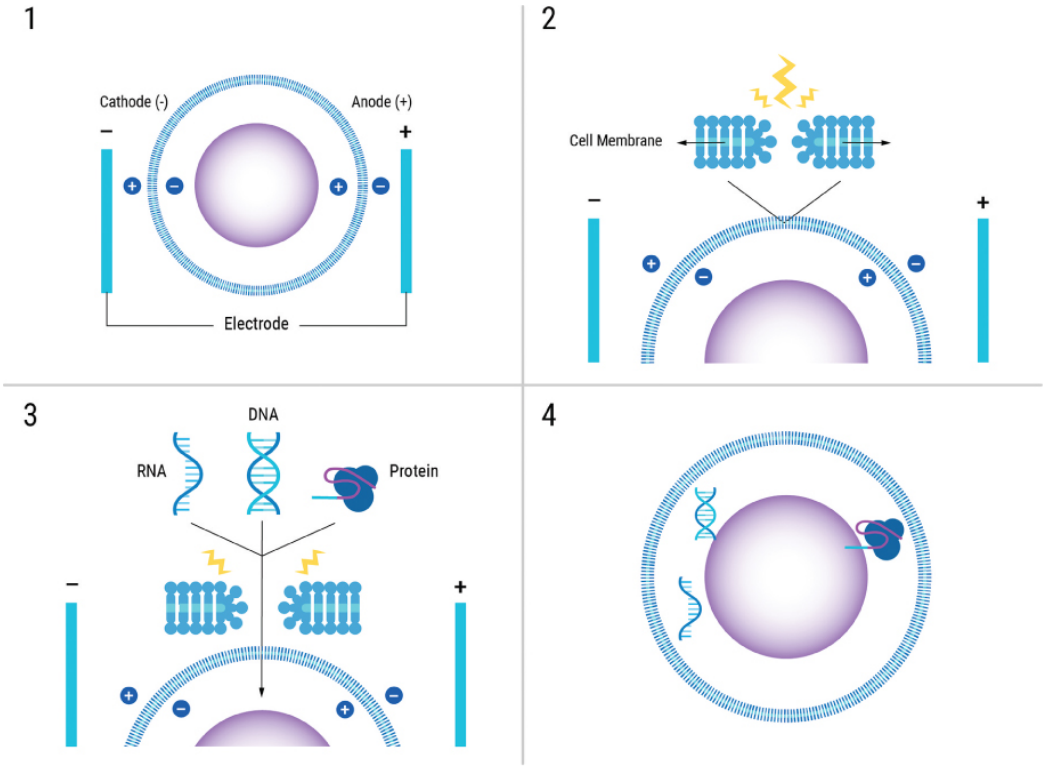
In order to understand electroporation, it is important to understand the make-up of the cell membrane. The cell membrane is a phospholipid bilayer, which is a thin membrane made up of two layers of lipid molecules forming a continuous cell membrane around the cytoplasm and acting as a stable barrier between the intracellular and extracellular environment. The lipid membrane is fluid — meaning individual molecules (including lipids and proteins) are free to rotate and move laterally and transversely, which is a critical property and determined by the composition of the lipid and the cell's thermal environment. The membrane is also selectively permeable, allowing the cell to control and maintain its internal composition, with the typical arrangement of the cellular membrane designed to impede the movement or passage of molecules into or out of the cell.

Applying electric fields above a certain threshold induces membranes to become more permeable. A key discovery in the use of electroporation to drive reversible permeability of cell membranes was the use of electric pulses — applying fields of adequate strength but for short durations — which allows the membrane to return to its normal state or reseal, and thus permeabilization is transient. If the pulse is too strong or too long, the membrane does not reseal, leading to cell death. The length of time that the membrane remains permeable is dependent on various factors, including temperature, ionic content and the presence and distribution of proteins.

While the precise molecular mechanism of electrically-induced membrane permeability has not been fully elucidated (with a number of theories proposed), experiments and mathematical modeling have provided insights into the potential physical-chemical mechanism of cell electroporation.

Overview of the electroporation process

The following graphic shows the steps involved in the electroporation process:



Step	Description
1	Polarization of the cell membrane occurs when electrical pulses are applied to cells suspended between two electrodes, creating an electric field.
2	The application of electrical pulses and the resulting transmembrane voltage induce the formation of openings in the cellular membrane. The size distribution of these openings depends on the intensity of the applied electric field and duration of cell exposure.
3	These openings allow the entry of macromolecules such as RNA, DNA or proteins (such as Cas9/guide RNA complexes) through the cell membrane and into the cytoplasm of the cell.
4	The effects of electroporation on the cellular membrane are reversible. Once the electric field is removed, the membrane has the capacity to reseal, trapping the molecules that passed across the membrane within the cytoplasm.

Development of our proprietary flow electroporation platform

The majority of commercial electroporation systems employ static electroporation. Generally, electroporation platforms consist of two flat plate electrodes, which are attached to the opposite sides of a cuvette (or chamber). A suspension of cells is added, in addition, to the molecule or molecules to be introduced into the cells. Electrodes are connected to electronic circuity that is able to deliver electric pulses of specified duration applied one or more times to the electrodes and thus to the cell suspension in the cuvette/chamber.

Static electroporation is limited to small volumes (typically less than 1 mL), making its use in cell therapy limited primarily to early research and development. This has proven to be a bottleneck when the goal is to scale electroporation to clinical or commercial therapeutic applications where electroporation of large volumes of cell suspension is required. Maintenance of sterility is important to applications of electroporation for large volumes, and given the limited volume of cells that could be electroporated per cuvette, electroporation of large volumes of cell suspension would require multiple cuvettes using static electroporation, making it impractical outside of early, small-scale research and development experiments.

Since pioneering the development and commercialization of Flow Electroporation over 20 years ago, we have focused on optimizing our Flow Electroporation platform, specifically for *ex vivo* applications. Flow Electroporation involves the continuous pumping of batches of a fixed volume of cells from a larger cell suspension from a sample bag into an electroporation chamber housed within our PA. Once the electroporation of the cells is completed, the electroporated cells are pumped to a collection bag and the next batch of cells to be electroporated enters the chamber. This process is repeated until the complete volume of cell suspension has been electroporated.

The key benefit of Flow Electroporation is that a large volume of cells can be electroporated, all in a closed, sterile system — facilitating the use of electroporation for therapeutic applications without sacrificing the viability and function of the transfected cells. The ability to electroporate cells in a closed system facilitates automating and maintaining a sterile environment for the engineering and manufacturing of larger cell volumes. Examples of applications benefiting from such scale are autologous CAR-T therapies, future allogeneic approaches using iPSCs, and manufacturing of transiently produced protein using Chinese hamster ovary or human embryonic kidney cells within the bioproduction or rapid vaccine production market segments.

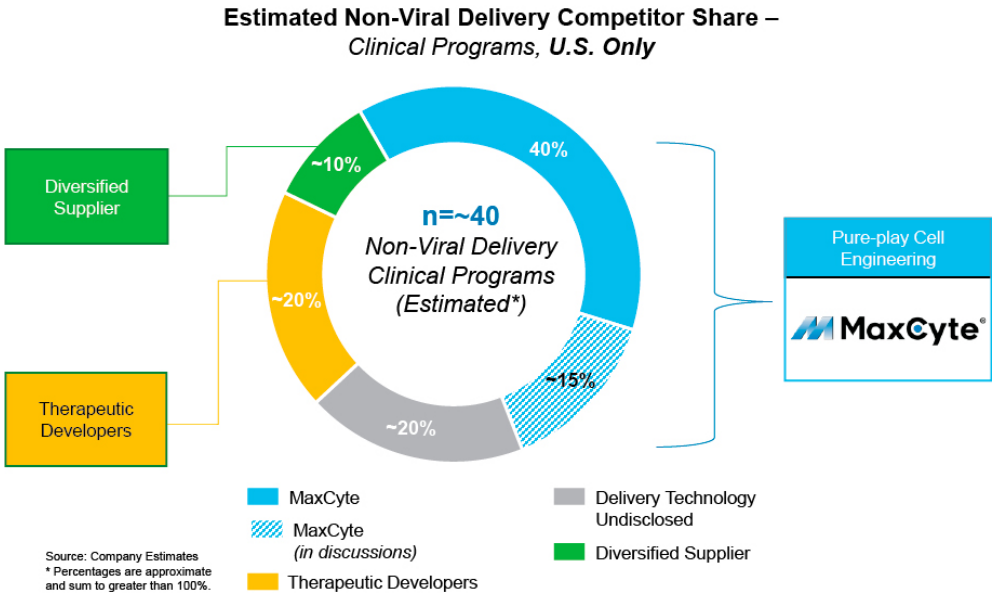
Our Market Opportunity

The challenges of viral delivery methods and increase in complexity of next-generation cell therapies have driven increased adoption of non-viral delivery technologies, such as electroporation. We believe our ExPERT technology is well positioned as a non-viral delivery platform in the cell therapy market. Originally developed in 1999 for the cell therapy market, we have systematically designed and improved to deliver any molecule, into any cell at any scale, with high efficiency and under cGMP conditions.

Our ExPERT platform is now the delivery backbone for a number of next-generation cell therapy programs that are in the clinic, including:

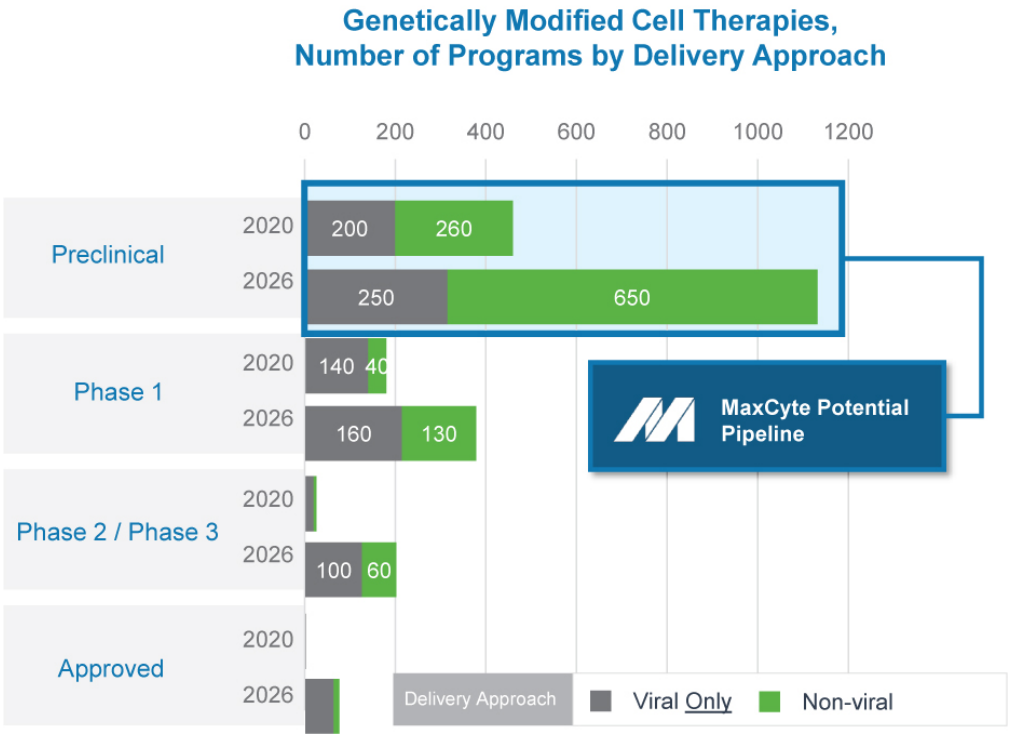
- CRISPR Therapeutics' CTX-001 for transfusion-dependent β-thalassemia and severe sickle cell disease.
- VOR Biopharma's VOR33, an eHSC therapy candidate for the treatment of Acute Myeloid Leukemia that received IND clearance in January 2021.
- Allogene's Allogeneic CAR-T for cancer.
- Caribou's CRISPR gene-edited allogeneic T-cell therapy program.
- Editas Therapeutics' EDIT-301, an *ex vivo* gene editing cell medicine in development for the treatment of sickle cell disease that received IND clearance in January 2021.
- Precision BioSciences' lead program, PBCAR0191, a novel CD19-targeted allogeneic CAR-T therapy candidate to treat relapsed/refractory Non-Hodgkin's lymphoma and B-cell acute lymphoblastic leukemia, and PBCAR269A, a BCMA targeted genome edited allogeneic CAR-T therapy candidate for multiple myeloma.

While many legacy cell therapy approaches use viral delivery approaches, we believe these developers will increasingly adopt non-viral approaches. We believe we currently have the largest market share supporting customers using non-viral delivery approaches for engineered cell therapies to treat immune-oncology and inherited disorders. As shown in the graphic below, we estimate that we have captured approximately 40% to 55% of U.S. clinical programs utilizing non-viral delivery and we expect to increase our share over time as more preclinical programs reach the IND-enabling phase.



Based on the current pipeline of engineered *ex vivo* cell therapy candidates in development for immuno-oncology and inherited genetic disorders, we estimate that our total addressable market opportunity for our ExPERT platform, based on the potential for SPLs, was approximately $9 billion in 2020. We expect this market to grow to over $24 billion by 2026 driven by growth in the *ex vivo* cell therapy pipeline and a shift to use of non-viral delivery technologies. We calculate these market opportunities using our internal estimates of risk-adjusted potential aggregate revenue potential from SPLs.

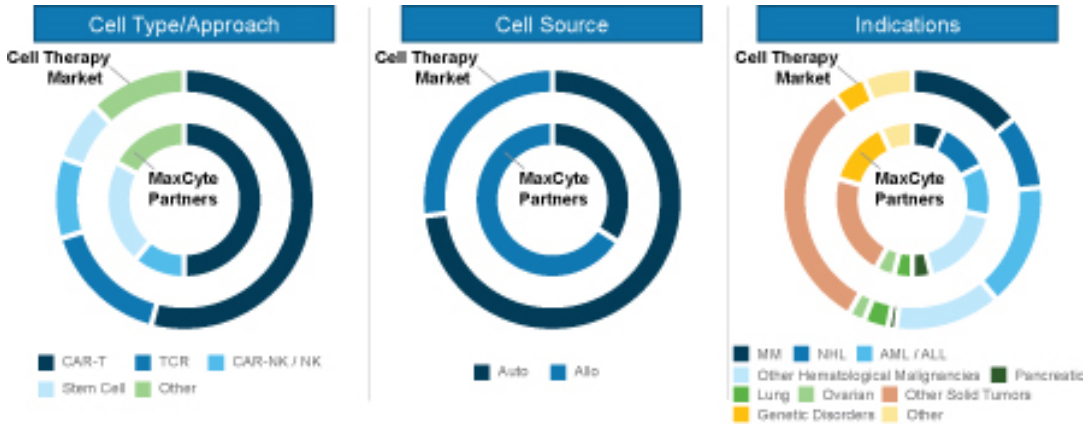
We estimate there are currently almost 700 genetically modified *ex vivo* cell therapies in various phases of development that we would consider our current addressable market, which is engineered cell therapy focused on oncology and inherited disorders. Based on historical growth rates of the cell therapy landscape and ongoing investment, we expect the number of *ex vivo* cell therapies to at least double over the next five years. We believe approximately 40% of current therapies are using non-viral delivery technologies. Given the benefits of non-viral approaches relative to viral delivery vectors, we expect the utilization of non-viral strategies to continue growing to approximately 60% of the total market by 2026. We expect this ongoing shift to non-viral strategies to be driven by increased adoption of gene manipulation technologies, such as CRISPR based gene editing approaches, the increased complexity of *ex vivo* therapies in the pipeline, as well as the high cost, payload limitations, and current manufacturing capacity constraints of viral approaches and advances in non-viral engineering technologies. These estimates are shown in more detail in the graphic below, which also identifies the programs that we consider to be part of our potential pipeline in terms of estimating our total addressable market:



We have a diverse portfolio of clinical partners and licensees that mirror the overall next-generation engineered *ex vivo* cell therapies. While difficult to predict given uncertainty around regulatory approvals and clinical risk, according to Evaluate Pharma, a provider of commercial intelligence and predictive analytics to the pharmaceutical industry, the first next-generation *ex vivo* cell therapies using non-viral approaches could be approved in the United States as early as 2023.

Our platform's ability to engineer a diversity of cell types (including CAR-T, chimeric antigen receptor Natural Killer cells, or CAR-NK/NK, T cell receptor, or TCR, and stem cells) and cell sources (autologous and allogeneic) enhances our opportunity by potentially providing for SPL revenues regardless of which approaches advance in the coming years. Additionally, our instruments and platform are well validated, having been used in over 30 clinical trials to date and having been involved in the development of drugs to treat a variety of indications spanning from hematological malignancies to solid tumors to inherited genetic disorders. We believe that the increasing number of publications highlighting the performance of our platform compared to other electroporation and transfection approaches will help to drive acceptance of our products in the cellular engineering market segments.

The following graphic depicts the variety of cell types, cell sources and target indications within the cell therapy market, as well as those represented in our cell therapy customers' current programs, which we believe to be in line with the overall market. For purposes of the graphic, all clinical gene modified cell therapies across therapeutic areas, such as oncology, inherited disorders and immune disorders, using both viral and non-viral delivery have been included, while other regenerative medicine programs that do not entail genetic modification to obtain a cell-based therapeutic product, such as tissue engineering, immune or stem cell therapies, that are not genetically modified have been excluded.



Our Agreements with Customers

In addition to sales of our instruments, as part of our business model we enter into the following types of Instrument license agreements with our customers:

Research Licenses

Research licenses are agreements we have entered into with customers (which could be academic institutions or commercial entities), which provide access to use our instruments for pre-clinical research-only purposes, without the rights or ability to produce material for use in the clinic. Research licenses provide the customer with the ability to use the platform for research in exchange for a non-refundable, annual lease payment of typically $150,000 per instrument per year. We have entered into many research licenses to-date, either as (i) stand-alone research license agreements, (ii) research and clinical license agreements that do not have associated commercial rights or (iii) under an SPL, which allows a customer to use the instrument for clinical development and potential commercial sale of a therapeutic product. Research licenses under a stand-alone research license agreement (as well as instruments purchased for research use) could represent opportunities for future SPLs.

Clinical Licenses

Clinical licenses are agreements with academic institutions or commercial entities, that provide access to use our instruments in the clinical evaluation and development of a therapeutic product intended for human use. A clinical license provides the customer with the ability to use the platform for production of clinical material for human clinical use, as well as access to our application scientist team, all in exchange for an annual lease payment that typically approximates $250,000 per instrument per year. Similar to a research license, in a clinical license, we retain the title to the instrument. Academic clinical licenses can represent opportunities for future SPLs to the extent that commercial entities seek and obtain rights to such programs from the academic institution.

Strategic Platform Licenses (SPLs)

SPLs are agreements with commercial therapeutic developers who are developing therapeutics intended for human use in clinical development or for commercial sale. As is the case with all of our clinical licenses, we retain title to the licensed instrument and associated intellectual property.

The SPL provides access to our platform for broad preclinical research, clinical evaluation and commercial use for a specific field of use, access to our FDA Master File (via the Letter of Authorization process) and/or Technical Files outside of the United States, and access to our application scientists. We typically provide our SPL customers with access to any updates we make to our platform, access to platform intellectual property that we develop during the term of the SPL, as well as pricing certainty for the programs associated with the SPL.

Our customer relationships may evolve to an SPL after the customer’s drug candidate optimization and verification process nears completion and the clinical process development stage begins. Specifically, if a customer wishes to use our products in the clinical phase of process development, they will need

to enter into an SPL, as a customer must obtain clinical rights to perform clinical process development, including for engineering runs. Customer discussion for an SPL can take place any time during our engagement.

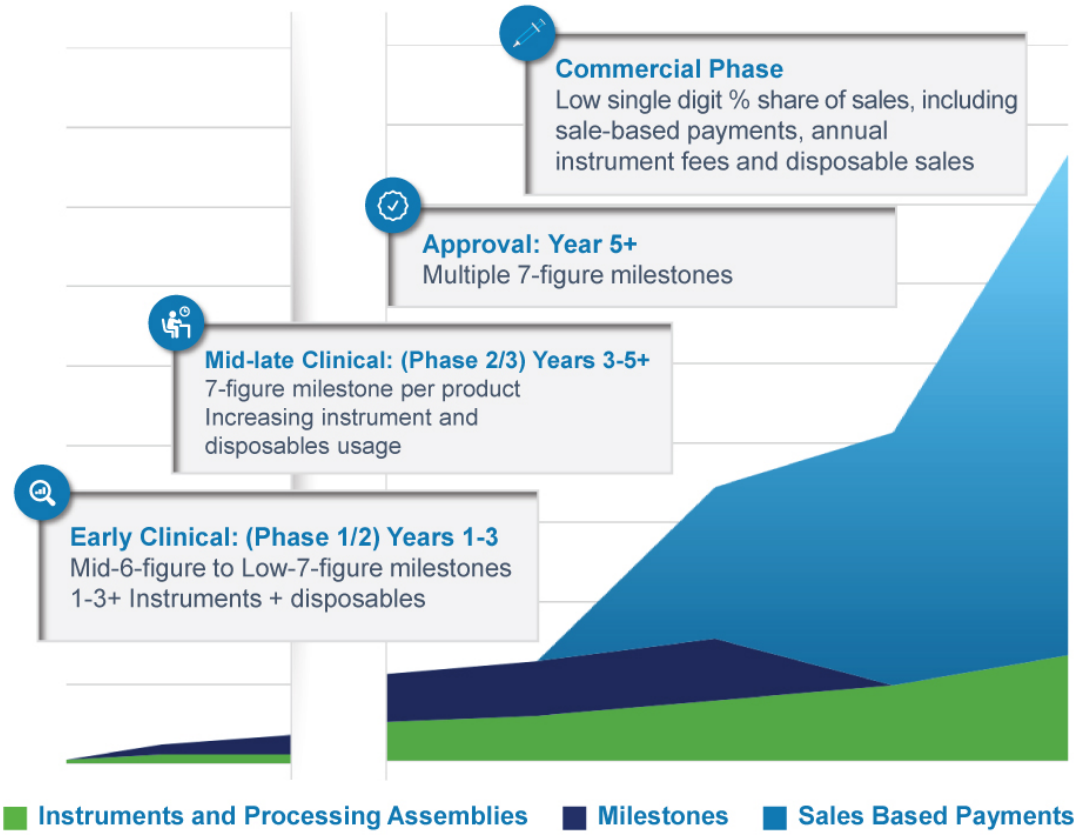
Our SPL customers typically pay an annual license fee of $150,000 per instrument per year for a research license (for preclinical use) or $250,000 per instrument per year for a clinical license (for clinical or commercial use). Partners also purchase associated single-use disposables and consumables as needed. Our SPL partners also commit to pay precommercial milestone payments for each therapeutic licensed under the agreement and produced using our platform, as they achieve key pre-commercial clinical development events (including for example, IND filing, dosing of an agreed number of patients in a Phase 1 clinical trial, initiating a pivotal clinical trial, and BLA approvals in specified regions). Precommercial milestone payments, expressed in U.S. dollars, typically range from mid-six figures at IND filing to mid-seven figures for BLA approval milestones.

Almost all of our SPLs also include a commitment to pay us post-approval sales-based payments for commercialized therapeutics. These payments can be structured as royalties and/or milestone-based payments and vary across our SPL customers. From a revenue perspective, sales based-payments for therapeutics are incremental to any instrument leases and/or disposables or consumables sales. Our revenues associated with a program under an SPL vary with the size of the target indication for the therapeutic, pricing of the therapeutic, the specifics of the therapeutic including the enablement we provide and the specifics of the negotiation for each SPL.

We view our ability to sign SPLs as a key measure of our success in partnering with leading therapeutic developers in the clinic and supports the high performance of our platform.

Our SPLs and research and clinical licenses may be terminated at the option of our customers at any time. Annual instrument lease fees are non-refundable and customers may not use our instruments or process assemblies after terminating their agreement with us. We retain title to the leased instrument in each of our licenses. Upon a contract termination, our customers would be responsible for any further clinical studies or data development that regulators may require to allow a change in their cell engineering methodology. To date, none of our SPL licensees has ever terminated their contract with us.

The following graphic is an example of typical single-product revenues from a representative SPL:



Our Products

The ExPERT instrument family was designed to provide a single unifying technology that can be used from concept to clinic, with both the research and clinical versions of the instrument incorporating the same underlying technology and protocols. Our customers have a choice of three different instrument versions that are standardized on the same technology to deliver the same high performance — the ATx, STx and GTx. Customers can start with the lower to medium scale research instrument (ATx) and then scale to the clinical version (GTx), without the need for re-optimization and re-validation. The STx provides the same scale as the GTx but is used for drug discovery applications, not for human therapeutic use, and is not covered by our FDA Master File or our Technical Files.

We believe these systems will also be supportive of the commercial marketing of our partners' therapeutic products which we enable. By allowing our customers to perform their research and process optimization on a research platform and seamlessly scale to a clinically validated, cGMP environment and 21 CFR Part 11 compatible clinical platforms, significant time and cost savings can be realized.

All of our instruments were designed to provide customers with the key features required for a scalable high-end, high-performance transfection solution. Each of our ExPERT instruments are benchtop with the same small footprint and have integrated touch screens with an intuitive Graphical User Interface, or GUI, designed for simple training and operation. To support use in the cGMP suite for clinical manufacturing, our GTx ExPERT software is network capable to enable upload of electronic batch records to a local shared drive and has a software intermediary to facilitate integration and automated data transfer to cloud-based data management solutions. We have integrated hardware and software design solutions, manufactured under cGMP, that are tailored for use in cGMP manufacturing of clinical product for advanced cellular therapies.

The following chart summarizes the features of the three ExPERT instruments:

Features	ExPERT ATx	ExPERT STx	ExPERT GTx
Main Use	Research	Research/ Development	Clinical
Market segment	General Research	Protein Production	Cellular Therapy
Scale (cells)	75,000 to 700 million	75,000 to 20 billion	75,000 to 20 billion
Designed for Use in cGMP Suite	✓	✓	✓
Benchtop	✓	✓	✓
Touchscreen	✓	✓	✓
Static electroporation	✓	✓	✓
Flow electroporation		✓	✓
Barcode reader		✓	✓
Designed to Align with 21 CFR Part 11			✓
FDA Master File and Technical Files			✓
Network capable			✓

ExPERT ATx: Research focused, static electroporation for small to medium scale transfection

Our ExPERT ATx static electroporation instrument is a research focused, high performance electroporation platform for small to medium scale transfection. The ATx instrument delivers high efficiency and viability at research scale and can utilize our range of PAs capable of transfecting from 75 thousand up to 700 million cells. Additionally, our ATx instrument is compatible with all of our static PAs, which can also be used on our GTx instrument, allowing for a seamless transition to our clinical cGMP-compatible platform. The ATx is designed and used by our customers for early design of experiment and process optimization at small scale to minimize cell acquisition and reagent costs. Once optimized for the biological function with smaller numbers of cells, the process can be replicated and scaled before being transferred to the clinical platform (GTx) for eventual manufacturing in the cGMP suite or to

the STx platform for drug discovery.

ExPERT STx: Flow Electroporation for protein production and drug development

Our ExPERT STx, which is used in the field of protein production as well as other drug discovery applications, also incorporates our proprietary Flow Electroporation Technology for high yield transient expression of complex proteins, viral vectors, vaccines and biologics. Our STx instrument has high efficiency and can rapidly transfect from 75 thousand up to 20 billion cells. When combined with flexible media strategies, the STx allows for substantial improvement in yields of high-quality, transiently expressed proteins while enabling reduced media costs.

Another key application area for the STx is expression of therapeutic targets for cell-based assays. Traditionally, drug screening has been performed using stable cell lines because conventional transfection technologies, such as lipofection, may induce changes to membrane composition, which does not offer the consistency and scalability that are critical for sensitive, high throughput screens. By enabling high efficiency transfection of multiple plasmids simultaneously into billions of cells, the STx provides drug developers with the ability to express complex, multi-subunit proteins, such as ion channels, in physiologically relevant cells. The high viability of our transfected cells leads to robust assay responses on multiple platforms, including automated electrophysiology and high content screening technologies. Moreover, precise control over loading efficiency gives assay developers the ability to “dial in” optimal assay windows.

ExPERT GTx: Flow Electroporation for large scale transfection in therapeutic applications

The ExPERT GTx incorporates our proprietary Flow Electroporation Technology for use in the cGMP manufacturing of cellular therapies for use in the clinic. By incorporating the Flow Electroporation Technology, larger volumes of up to 20 billion cells can be electroporated within 15 to 20 minutes. With a processing potential that ranges from 75,000 to 20 billion cells on a cGMP, 21 CFR Part 11 compatible system, the GTx represents a platform for clinical electroporation at large scale.

The GTx integrates several design features that are critical for use in a cGMP setting, such as barcode reading capability to maintain positive identification of patient samples, 21 CFR Part 11 compatible software and networking capability for automated uploading of electronic batch records to either a central server or to a cloud-based data management platform. The GTx offers the potential for closed sample processing, on a system compatible with integration into cGMP manufacturing environments, and that has an established regulatory path supported by our FDA Master File and Technical Files.

VLX: Designed for extremely large volume cell-engineering

The VLX Large-Scale Transfection System is a cGMP compliant instrument specifically designed for extremely large volume cell-engineering. Using proprietary Flow Electroporation Technology, the VLX supports the ability to transfect up to 200 billion cells in less than 30 minutes — 10 times the capacity of the STx. This system is designed for the rapid and large-scale production of recombinant proteins, monoclonal antibodies, viral vectors, vaccines, virus-like particles, or VLPs, and allogeneic cell therapies. We intend to introduce the VLX under the ExPERT umbrella, to be rebranded as VLx, to provide our

customers with an easier to use system that incorporates the benefits of the ExPERT platform. We expect that the short-term development costs associated with the VLX to VLx product development will require limited investment and will be completed by the end of 2021. In parallel, we plan to expand functionality of the VLx into new applications, such as large-scale bioprocessing. We expect that additional investment will be needed to build out process development capabilities, manufacturing capacity and the addition of large-scale bioprocessing-specific field resources. We estimate that these initiatives could cost approximately $20 million to $30 million in the aggregate over the next several years.

Disposables — Processing Assemblies

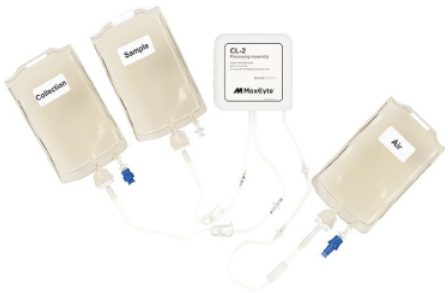
Our range of disposable processing assemblies, or PAs, is an important differentiator for us. We are not aware of any other company with the breadth and diversity of volume ranges and designs to enable high efficiency electroporation in single-well and multi-well formats, for use in both the research and clinical settings. We view the PA design as one of the key contributors to the high efficiency and viability of the ExPERT platform.

We have designed a range of PAs, that are specially designed to hold and electroporate the chosen quantity of cells. Each PA contains two electrodes, between which a medical grade gasket is sandwiched that has a unique well design consistent with the processing volume required and to allow maximum retrieval of cells. We have designed a unique range of PA's capable of electroporating cell volumes from small to large scale, in single and multi-well formats, for both research and clinical use. Cells are placed into the well or wells and the PA is then inserted into the instrument for processing. The instrument touch screen allows the operator to select the desired cell protocol that encodes the electroporation parameters, select the type of PA to be used and enter any sample specific information. Once the sample information has been entered, the operator will touch the "Start Processing" icon on the user interface and the sample will be rapidly processed. Larger volumes of cells are accommodated by larger capacity PAs and a set of simple software commands through the intuitive GUI.

Our ExPERT system uses two PA designs — a static cuvette used for smaller cell volume requirements (from 75,000 cells up to 200 million cells) and a cartridge that is used for both static and Flow Electroporation for larger cell volumes (700 million up to tens of billions of cells). The Flow Electroporation PA (CL-2) allows for processing of cellular volumes ranging from 10 mL to 100 mL and up to tens of billions of cells. The CL-2 consists of two bags and associated tubing, made from medical grade materials, that are connected to the electroporation cartridge. Users will transfer their cells and loading molecules to the sample bag, and the pump on either the GTx or STx instrument pumps a fixed volume of cells into the cartridge chamber where they are electroporated. Once the electroporation is complete, the cells are pumped to the collection bag and the chamber is filled with the next volume of cells for electroporation. This process is repeated until the entire sample volume is processed. The maximum volume of 100 mL of cells can be processed in approximately 15-20 minutes.

Our two ExPERT PA designs are shown in the pictures below:

ExPERT cuvette design
(Static Processing Assembly)



ExPERT Flow Electroporation design
(Flow Processing Assembly)

We have conducted extensive end-user research over the last several years to continue to improve the design of the PAs and the range of products available. As a result, we launched the ExPERT cuvette shown above in 2020 based on customer feedback, which incorporated a new design to improve

handling and ease of use. Under this new design, two new volume offerings have been launched, the R-1000 that can process up to 1 mL, or 200 million cells, and the R-50x3, which is a 3-well cuvette capable of processing up to 10 million cells in each well. The multi-well cuvettes reduce manual handling and improve productivity in the lab. By enabling three samples to be processed in the same cuvette, a more efficient process can be achieved by users. We expect to launch an additional multi-well cuvette in the second half of 2021, and the new ExPERT PA design will also be rolled out across the entire range of cuvettes.

The following matrix shows our full line of currently available PAs and their respective specifications and features, including the ExPERT instruments with which they can be used:

PA Name:	OC25x3	R-50x3	OC100x2	OC100	OC400	R-1000	CL1.1	CL-2
PA Type	 STATIC	 STATIC	 STATIC	 STATIC	 STATIC	 STATIC	 STATIC	 FLOW
PA use Research (R) or Clinical (C)	R	R	R	R + C	R + C	R + C	R + C	R + C
High Vol.	25uL	50uL	100uL	100uL	400uL	1mL	3mL	100mL
Low Vol.	15uL	45uL	50uL	50uL	200uL	500uL	1mL	10mL
High Cell #	5 mill.	10 mill.	20 mill.	20 mill.	80 mill.	200 mill.	700 mill.	20 bill.
Low Cell #	75K	125K	500K	500K	2 mill.	5 mill.	15 mill.	500 mill.
# transfections per PA	3	3	2	1	1	1	1	1
ATx	✓	✓	✓	✓	✓	✓	✓	
GTx	✓	✓	✓	✓	✓	✓	✓	✓
STx	✓	✓	✓	✓	✓	✓	✓	✓

We are committed to continuing to strategically invest in improvements in the PA design and range of products to ensure that customers have solutions that address all of their volume and use requirements, in both the research and clinical settings.

Supporting Products

Our proprietary electroporation buffer, a balanced salt solution that protects cells during transfection, is formulated for use with all our instrument platforms and PAs. This consumable is used for all cell types, eliminating the need to change buffers as users switch protocols, cell types or scale up. The buffer is made in a cGMP facility, is fully chemically defined and is free of human or animal components, and is tested to meet technical, sterility and endotoxin specifications. This buffer formulation is a key contributing factor, in combination with instrument and PA design features, to the flexibility, high efficiency and viability that can be achieved by customers across the broad range of cell types processed using our platform.

Sales and Marketing

We follow a direct sales model in North America, United Kingdom, and Europe, while also selling through third-party distributors in some regions in Europe and Asia. As of March 31, 2021, we have over 20 field sales and application scientists located in the United States, the United Kingdom, and several regions in Europe and Asia. Since the commercial launch of our first Flow Electroporation instrument, the installed base of our instruments has grown to more than 400 instruments globally.

Our sales force and field application scientists and international partners inform our current and potential customers of current product offerings, new target applications and advances in our technologies and products. As our primary point of contact in the marketplace, our field teams focus on delivering a consistent marketing message and high level of customer support, while also attempting to help us better understand the evolving market and customer needs.

We intend to expand our sales, support, and marketing efforts in regions, such as the Asia-Pacific region, with a significant number of large pharmaceutical and biopharmaceutical companies. We currently use distributors in countries in these regions, such as in China and Japan, and continuously assess the need for direct sales and local support personnel to supplement our distributors' resources. As we expand into a new geography, we generally rely initially on third-party distributors until we are able to recruit a direct sales force, field application scientists and business development resources in the country or region. We currently estimate that over the next five years we will invest up to $20 million for these expansion initiatives in Asia and to a lesser extent in Europe.

Our business model is focused on identifying new applications in cell engineering to enable our customers to develop better medicines and maximize use across our customers' value chains. This is enabled through customer partnerships that allows us to further understand the critical applications for our technology and inform our future developments and market expansion.

Research and Development

Investment in research and development is at the core of our business strategy. Members of our research and development team specialize in many functional areas including molecular biology, cellular biology, physics, gene editing, cell culture, protein manufacturing, algorithms, mechanical engineering, cell handling processes, electroporation algorithm development and customer technical support.

Our research and development teams are aligned into two teams, applications and instrumentation. The application team is responsible for developing data on key applications, including improving approaches to cell handling and cell culture; designing, developing and enhancing electroporation protocols; developing and enhancing cell engineering applications, and performing product testing and quality assurance activities. The instrumentation engineering team focuses on developing and improving electroporation instrument and PA disposables to meet our partners' large range of needs from research to commercialization in a GMP environment. The research and development functional teams work together as a core team, following a stage gate process to develop, qualify and launch new products to market.

Other research and development activities include customer technical support such as lab cell processing techniques, instrumentation training and application support. Most of our research and development operations are conducted in our Maryland facility.

We have made substantial investments in product and technology development since our inception. Research and development expense totaled $17.7 million in the year ended December 31, 2020 and $6.1 million in the three months ended March 31, 2021.

Although our CARMA pre-clinical and clinical development will be concluded in the first half of 2021, we expect our research and development expenses outside of CARMA to increase significantly for the foreseeable future as we develop data supporting the use of our products in various applications and continue to enhance our existing products as well as develop new products for our current and new markets.

Manufacturing and Supply

We design our single use PA disposables and conduct final functional testing in our Maryland facility. In addition, we design, develop and manufacture the ExPERT instruments in-house. Our in-house manufacturing and design function is certified as ISO 9001 compliant and our manufacturing facility is located at our headquarters in Maryland. This facility includes approximately 1,000 square feet of production assembly space, plus ancillary machine shop and design spaces. Inventory is held in our Maryland facility in a 2,500 square foot controlled-access shipping, receiving and storage space.

Instruments

Our range of ExPERT instruments are manufactured, tested and shipped from our Maryland facility under cGMP. Several custom components of our ExPERT instruments are fabricated by third-party suppliers. The assembly of technology-sensitive components and the final assembly is completed in-house. Currently, our Maryland manufacturing facility can support the production of

ExPERT instruments in excess of current demand, and we will continue to obtain the space and staffing necessary to meet customer demand for the foreseeable future.

Processing Assemblies

Our family of ExPERT instruments incorporate a broad range of proprietary single use PAs that are specially designed to meet the needs of our customers for cell volume, single- or multi-well configuration, static or flow processing. These PAs are only available from us and are designed for use only with our instruments. Accordingly, our range of PAs are designed, developed, tested and shipped from our Maryland facility. We currently outsource manufacturing of components and final clean-room disposables assembly to third parties. We plan to move the cleanroom assembly activities in-house in order to enhance operational control over quality, expand capacity, enable automation implementation and improve other areas of operations. In-addition, in-house manufacturing would be expected to allow research and development to more rapidly develop new products and enhancements when manufacturing and research and development are in the same facility. We currently plan to design and construct a new facility in the first half of 2022 that would include new cleanroom space for assembly of processing assemblies. We expect that staffing, manufacturing process development and initial validation would begin thereafter. We will seek to establish commercial scale production capacity by the end of 2022 and full initial capacity during 2023. In aggregate, we expect to invest approximately $20 million to $30 million to expand our manufacturing and automation efforts over the next five years.

Supply

For both instrument and PA manufacturing, we regularly assess our supply chain to ensure availability of components, our ability to respond to customer demand for our products and to qualify multiple suppliers. We have relationships with several custom parts manufacturers and electronics suppliers that can provide components for our instruments, including components currently provided by a single source. Approximately 47% of our inventory held at December 31, 2020 was purchased from one supplier. The single source suppliers are chosen for their business stability and scalability to minimize risk. If a single source supplier has a part or process that is time-consuming to transfer to another supplier, we will hold enough inventory of that part to allow adequate time for technical transfer and qualification. Our ongoing strategy is to maintain adequate levels of inventories at all times and to qualify at least two suppliers for critical quality components, and we plan to continue the diversification of our supply chain as we scale. This inventory strategy was designed to minimize supply chain risk and as a result we are currently able to ship on demand and to date have never had a backorder for a product.

Competition

The life sciences market is highly competitive and dynamic, reflecting rapid technological evolution and continually evolving customer requirements. There are other companies, both established and early-stage, that have or are developing electroporation and other non-viral delivery technologies that could be applicable to both bioprocessing and cell engineering. These companies include Lonza Group AG, Thermo Fisher Scientific Inc., Miltenyi Biotec, Bio-Rad Laboratories, Inc. and Harvard Biosciences Inc. (BTX) as well as several other smaller companies, including spinouts from academic labs.

Some of these companies may have substantially greater financial and other resources than us, including larger research and development staff or more established sales forces. Other competitors are in the process of developing novel technologies for the life sciences market which may lead to products that rival or replace our products.

For further discussion of the risks we face as a result of competition, see “Risk Factors — Risks Related to Our Business and Growth Strategy — We may be unable to compete successfully against our existing or future competitors.”

Intellectual Property

Our intellectual property strategy has been, and still is, to obtain patent protection in relevant jurisdictions over our instruments, methods utilizing our instruments, as well as design patents over the ExPERT system. As part of this strategy, we have focused on obtaining protection for our non-viral delivery platform to the extent possible, particularly in the United States and other key jurisdictions of commercial value. As of May 4, 2021, we have 50 granted U.S. and foreign patents, including in foreign

jurisdictions such as Australia, Canada, Japan, China, South Korea and certain countries in Europe, as well as 76 pending patent applications worldwide. The main focus of our patent coverage protects our Flow Electroporation, processing chambers/disposables, control and process elements, and methods of using our non-viral delivery platform. Our patent portfolio provides protection over our instruments and related methods through at least 2028 and over our electroporation applications and methods through 2034. We are also working to secure design protection of the ExPERT system, which has the potential to provide protection through at least 2036.

In addition to our granted patents and filed applications, we maintain and protect a number of different trade secrets related to our cell processing technology and other core technology areas, such as improvements made to protocols, pulsing patterns, proprietary buffer and formulations developed by us. Our years of accumulated know-how and the technical expertise of our employees provide us with a competitive advantage. We use our know-how and technical expertise to optimize and update our proprietary methods and protocols, such as cell handling and preparation techniques unique to different cells and target molecules, which we confidentially share with our customers.

We maintain the confidentiality of our trade secrets, know-how and proprietary methods and protocols to protect our intellectual property from competitors. One key element of this protection is our FDA Master File and Technical Files described in more detail below, which allow us to submit to the regulator confidential detailed information about our ExPERT system and disposables. The relevant submission can be referenced by our customers or licensees to support their own regulatory filings without the need for us to disclose the confidential information contained in the FDA Master File and Technical Files.

We also seek to protect our brand through procurement of trademark rights. As of May 4, 2021, we owned 13 registered trademarks in the United States, 79 registered foreign trademarks and 15 pending U.S. trademark applications. Our registered trademarks and pending trademark applications include trademarks for MaxCyte, CARMA, a stylized version of ExPERT and our logo. In order to supplement protection of our brand, we have also registered several internet domain names.

Government Regulation

The FDA and similar governmental authorities regulate, among other things, the research, development, testing, manufacturing, clearance, approval, labeling, storage, recordkeeping, advertising, promotion, marketing, distribution, post-market monitoring and reporting, and import and export of technologies including biological drug products.

Our biopharmaceutical and life sciences customers are subject to extensive regulations by the FDA and equivalent regulatory authorities in other countries, regarding the conduct of preclinical studies and clinical trials, in the manufacture of product candidates and products for use in humans (i.e., “Good Manufacturing Practice” laws and regulations) and the marketing authorization and commercialization of biological drug products.

The activities of sponsors, applicants and manufacturers are subject to regulation of those jurisdictions where the research or manufacturing occur, and also jurisdictions for which applications are planned or have been made and the product is intended to be marketed.

Although we are not engaged in directly regulated activities, our customers will generally assess our products for sufficiency in meeting their regulatory needs, and may impose rigorous quality or other regulatory compliance requirements on us as their supplier through supplier qualification processes and customer contracts.

We have established a quality management system (under ISO 9001:2015 standards) which is designed to respond to customer expectations and needs and support customer adherence to applicable regulatory requirements. The technologies we offer for potential use by customers in a cGMP environment are produced under this ISO 9001:2015 quality management system.

Master and Technical Files to Support Customer Regulatory Submissions

Our core business is focused on developing our proprietary and patented electroporation technology platform is used by our customers in research and development applications as well as for manufacture

of commercial cell therapies. In order to support our customers' use of our platform, we have voluntarily submitted a Master File to the FDA, Center for Biologics Evaluation and Research and Technical Files to comparable regulatory authorities in other jurisdictions, including Canada, Japan, the United Kingdom and Austria, and provide nonexclusive Letters of Authorization to the Master or Technical Files under contractual agreements with our customers. We are also in discussions with regulatory authorities in Australia, Germany, Thailand and China with respect to submitting technical files for our electroporation technology platform. In this way, the regulatory body may review information on our platform in the context of its utilization by our partners in regulated products, for example, as described in our customers' Investigational New Drug applications. We continuously update the Master and Technical Files in order to support the regulatory activities of our customers. The FDA and regulators in other countries allow Master and Technical Files, but they do not approve them.

U.S. Healthcare Laws and Reform

In the United States, there are federal and state healthcare laws that constrain the business or financial arrangements and relationships through which our customers who use our platform and we, if we develop a product, research, sell, market and distribute products. Such laws include federal and state anti-kickback laws, false claims laws, transparency laws and health information privacy and security laws. Violations of these laws can lead to significant administrative, civil and criminal penalties, including sanctions, damages, disgorgement, monetary fines, possible exclusion from participation in government healthcare programs such as Medicare and Medicaid, imprisonment, additional reporting requirements and/or oversight obligations, contractual damages, reputational harm, diminished profits and future earnings and curtailment or restructuring of operations.

Additionally, in the United States and some foreign jurisdictions there have been, and continue to be, several legislative and regulatory changes and proposed reforms of the healthcare system in an effort to contain costs, improve quality, and expand access to care, including the proposed modification to some of the aforementioned laws. In the United States, there have been and continue to be a number of healthcare-related legislative initiatives that have significantly affected the healthcare industry. These reform initiatives may, among other things, result in modifications to the aforementioned laws and/or the implementation of new laws affecting the healthcare industry. Similarly, a significant trend in the healthcare industry is cost containment. Third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medications. Our ability to commercialize any of our products successfully, and our customers and collaborators' ability to commercialize their products successfully, will depend in part on the extent to which coverage and adequate reimbursement for these products and will be available from third-party payors. As such, cost containment reform efforts may result in an adverse effect on our operations.

The Foreign Corrupt Practices Act

The Foreign Corrupt Practices Act, or FCPA, prohibits any U.S. individual or business from paying, offering, or authorizing payment or offering of anything of value, directly or indirectly, to any foreign official, political party or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the United States to comply with accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations.

Data Privacy and Security Laws and Regulations

The collection, use, transfer, disclosure, retention, security and other processing of personal data (including, without limitation, clinical trial data and other data concerning health) may be subject to independent and overlapping data security and privacy regulatory frameworks in the various jurisdictions in which we operate. These frameworks are evolving and may impose potentially conflicting obligations.

For example, in the European Economic Area, or EEA, the processing of personal data is principally governed by the provisions of the General Data Protection Regulation, or GDPR. The GDPR applies to any processing operations carried out in the context of an establishment in the EEA as well as any processing operations relating to the offering of goods or services to individuals in the EEA and/or the monitoring of their behavior in the EEA. Further notwithstanding the United Kingdom's withdrawal from

the European Union, by operation of the so-called “UK GDPR” (i.e., the GDPR as it continues to form part of the law of the United Kingdom by virtue of section 3 of the EU (Withdrawal) Act 2018 and as subsequently amended), the GDPR continues to apply in substantially equivalent form to processing operations carried out in the context of an establishment in the United Kingdom and any processing relating to the offering of goods or services to individuals in the United Kingdom and/or monitoring of their behavior in the United Kingdom. Therefore, reference to the GDPR herein, also refers to the UK GDPR in the context of the United Kingdom, unless the context requires otherwise. In addition, the GDPR provides that EEA member states may introduce specific requirements related to the processing of “special categories of personal data”, including the personal data related to health and genetic information, which we may process in connection with clinical trials or otherwise; as well as personal data related to criminal offenses or convictions. In the United Kingdom, the UK Data Protection Act 2018 complements the UK GDPR in this regard. This fact may lead to greater divergence on the law that applies to the processing of such categories of personal data across the EEA and/or United Kingdom.

The GDPR enhances data protection obligations for controllers of personal data (such as clinical trial sponsors), including stringent requirements relating to the consent of data subjects in certain circumstances, expanded disclosures about how personal data is used, requirements to respect enhanced data subject rights in certain circumstances, requirements to conduct privacy impact assessments for ‘high risk’ processing, limitations on retention of personal data, mandatory data breach notification and ‘privacy by design’ requirements. The GDPR also imposes strict rules on the transfer of personal data outside of the EEA or United Kingdom to countries that have not been judged to ensure an adequate level of protection for personal data, like the United States. Such transfers of personal data require the implementation and maintenance of a valid “transfer mechanism.” Following a recent ruling of the Court of Justice of the European Union, and subsequent regulatory guidance, certain previously available transfer mechanisms have been invalidated, and reliance on alternative transfer mechanisms may be complex or not possible in certain circumstances, for example, in many cases, such transfer mechanisms may need to be supplemented with additional, often onerous, technical, organizational and/or contractual measures.

Failure to comply with the requirements of the GDPR and related national laws may result in fines up to 20 million euros/17.5 million pounds sterling or 4% of a company’s global annual revenues for the preceding financial year, whichever is higher. In addition to administrative fines, a wide variety of other potential enforcement powers are available to competent supervisory authorities in respect of potential and suspected violations of the GDPR, including extensive audit and inspection rights, and powers to order temporary or permanent bans on all or some processing of personal data carried out by non-compliant actors — including permitting authorities to require destruction of improperly gathered or used personal data. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies and obtain compensation for damages resulting from violations of the GDPR.

Additionally, following the United Kingdom’s withdrawal from the European Union on January 31, 2020 and end of the post-Brexit transition period on December 31, 2020, as noted above, the United Kingdom has introduced the UK GDPR which currently makes the privacy regimes of the EEA and United Kingdom similar, though it is possible that either the European Union, and consequently those further states that make up the remainder of the EEA, or United Kingdom could elect to change their approach and create differences in legal requirements and regulation in this area. Furthermore, under the post-Brexit Trade and Cooperation Agreement between the European Union and the United Kingdom, the United Kingdom and European Union have agreed that personal data transfers to the United Kingdom from EEA Member States will not be treated as ‘restricted transfers’ to a non-EEA country for an initial period of up to four months from the end of the post-Brexit transition period, plus a potential further two months thereafter. If the European Commission does not adopt an ‘adequacy decision’ in respect of the United Kingdom during this period, from that point onwards the United Kingdom will be an ‘inadequate third country’ under the GDPR and transfers of personal data from the EEA to the United Kingdom will require a valid transfer mechanism (such as entry into the then-current form of the European Commission-issued Standard Contractual Clauses).

Given the breadth and depth of changes in relevant data protection obligations and regulatory frameworks, achieving and maintaining compliance with applicable data protection laws and regulations

such as the GDPR and UK GDPR will require significant time, resources and expense, and we may be required to put in place new or additional mechanisms to ensure compliance with current, evolving and new data protection requirements.

Failure to comply, or perception of a failure to comply with any of these laws, regulations, rules and standards could result in enforcement actions against us, including fines, public censure, claims for damages by affected individuals, damage to our reputation, and loss of goodwill, any of which could have a material adverse effect on our business.

Legal Proceedings

We are not subject to any material legal proceedings.

Facilities

Our corporate headquarters, where our primary research and development, instrument design, development and manufacture, applications lab and distribution, sales, marketing and general and administrative activities are housed, are located in Gaithersburg, Maryland.

Our headquarters facility consists of approximately 26,000 square feet of office and laboratory space under leases, which expire in October 2023.

On May 27, 2021, we entered into an operating lease, or the Operating Lease, for up to 67,326 square feet of new office space located in Rockville, Maryland. The Operating Lease consists of three phases of area expansion, with phase 1 estimated to commence on January 1, 2022. The Operating Lease will expire on June 30, 2035. We believe that our facilities, once phase 1 of the Operating Lease is effective, will meet our current and future anticipated needs for the foreseeable future.

Employees and Human Capital

As of March 31, 2021, we had 65 full-time employees, 45 of which have advanced degrees, including 19 with Ph.D. degrees.

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

None of our employees is represented by a labor organization or under any collective-bargaining arrangements. We consider our employee relations to be good.

MANAGEMENT

The following table sets forth information for our executive officers and directors, including their ages as of June 1, 2021:

Name	Age	Position
Executive Officers:		
Doug Doerfler	65	President, Chief Executive Officer and Director
Amanda Murphy	44	Chief Financial Officer
Ron Holtz	63	Senior Vice President and Chief Accounting Officer
Thomas M. Ross	60	Executive Vice President, Global Sales and Marketing
Maher Masoud	46	Executive Vice President and General Counsel
Non-Employee Directors:		
J. Stark Thompson, PhD	79	Chairman
Yasir Al-Wakeel	39	Director
Will Brooke	65	Director
Richard Douglas, PhD	68	Director
Rekha Hemrajani	52	Director
Stanley C. Erck	73	Director
John Johnston	62	Director
Art Mandell	68	Director

Executive Officers

Doug Doerfler has served as our president and chief executive officer and on our board of directors since July 1998. Prior to cofounding MaxCyte in 1998, Mr. Doerfler served as president and chief executive officer and as a director of Immunicon Corporation. Prior to joining Immunicon, Mr. Doerfler held executive positions at life sciences company Life Technologies Corporation (now Thermo Fisher). Mr. Doerfler currently serves as chair emeritus of the Maryland Tech Council and on the executive committee of the Biotechnology Innovation Organization. Mr. Doerfler received his B.S. in finance from the University of Baltimore School of Business. We believe that Mr. Doerfler's life science and cell therapy industry knowledge and public company management experience qualify him to serve on our board of directors.

Amanda L. Murphy has served as our chief financial officer since September 2020. Before joining MaxCyte, Ms. Murphy served as a managing director of BTIG, LLC from 2018 to 2020 where she covered cell and gene therapy as an equity research analyst. Prior to BTIG, she was a partner and healthcare equity research analyst at William Blair & Company from 2006 to 2018, focused on covering enabling tools and services in the life sciences. Ms. Murphy received a B.S. in biology from Boston College and an M.B.A. in finance, accounting and economics from the Kellogg Graduate School of Management at Northwestern University.

Ron Holtz has served as our senior vice president and chief accounting officer since September 2020 and served as our chief financial officer from 2005 to September 2020. He also served on our board of directors from 2016 to July 2021. From 2000 to 2004, Mr. Holtz served as chief financial officer of B2eMarkets Inc., an e-sourcing and performance management provider. Mr. Holtz served as chief financial officer of RWD Technologies from 1996 to 1999 and previously spent time in Ernst & Young LLP's Financial Advisory Services Group. Mr. Holtz received his B.S. in mathematics from the University of Wisconsin, an M.B.A. from the University of Maryland and is a certified public accountant.

Thomas M. Ross has served as our executive vice president of global sales and marketing since September 2014. Prior to joining MaxCyte, Mr. Ross was senior vice president of commercial operations

at OpGen from 2012 to 2014. Mr. Ross also served as chief commercial officer at Predictive BioScience and vice president of North America medical diagnostics sales at Qiagen/Digene Corporation. Prior to working at Digene Corporation, Mr. Ross held several senior leadership roles in manufacturing operations at Life Technologies Corporation and Cambrex. Mr. Ross received his B.A. in business administration from The Citadel.

Maher Masoud has served as our executive vice president and general counsel since January 2020 and previously as our vice president of legal from May 2017 to January 2020. From July 2015 to May 2017, Mr. Masoud served as assistant general counsel and corporate secretary for Wellstat Management Company and previously served as co-founding partner of Rossi/Masoud LLC, a specialized law firm for the biotech, pharmaceutical and IT sectors. Previously, Mr. Masoud was a corporate attorney at Human Genome Sciences, Inc. from 2006 until 2012. Mr. Masoud received his J.D. from Michigan State University College of Law and a B.S. in cell and molecular biology genetics from the University of Maryland. Mr. Masoud is a member of the Maryland state bar.

Non-Employee Directors

J. Stark Thompson, PhD has served as the chairman of our board of directors since January 2001. Dr. Thompson has nearly five decades of corporate leadership and business management experience, dating back to when he joined the DuPont Company in 1967, where he spent more than 20 years. From 1988 until 2000, Dr. Thompson served as president, chief executive officer and board member of Life Technologies, Inc. Dr. Thompson has served on and led various boards of directors, including for companies such as Gene Logic, Inc. and Luminex Corporation. Dr. Thompson received his B.S. in Chemistry from Muskingum University and his M.Sc. and Ph.D. in physiological chemistry from The Ohio State University. We believe Dr. Thompson's extensive experience in business operations qualifies him to serve on our board of directors.

Yasir Al-Wakeel, BM BCh has served on our board of directors since June 2021. Dr. Al-Wakeel has served as Chief Financial Officer and Head of Corporate Development of Kronos Bio, Inc. since August 2020. Prior to joining Kronos Bio, Dr. Al-Wakeel served as the Chief Financial Officer of Neon Therapeutics, Inc. from July 2017 to May 2020. Previously, Dr. Al-Wakeel served as the Chief Financial Officer and Head of Corporate Development at Merrimack Pharmaceuticals, Inc. from August 2015 until July 2017. Dr. Al-Wakeel previously served in various capacities at Credit Suisse, an investment banking firm, from 2008 to 2015. While at Credit Suisse, Dr. Al-Wakeel was Director of Healthcare Investment Banking, focused on biotechnology, and, prior to that role, he was an Equity Research Analyst covering the biotechnology and specialty pharmaceuticals sectors. Before joining Credit Suisse, Dr. Al-Wakeel was a practicing physician, holding both clinical and academic medical posts. Dr. Al-Wakeel received his BM BCh (Doctor of Medicine and Surgery) from Oxford University and his M.A. in theology from Cambridge University. We believe that Dr. Al-Wakeel's significant scientific and finance background qualify him to serve on our board of directors.

Will Brooke has served on our board of directors since March 2004. Mr. Brooke is a limited partner of Harbert Management Corporation, or HMC, which he co-founded in 1993, most recently serving as EVP and Managing Partner of its venture capital funds family from July 2003 to December 2014. Mr. Brooke has been advising and investing in early-stage and growth companies for more than 30 years, and previously served on the boards of numerous pharmaceutical and medical equipment companies such as nContact, Inc., NovaMin Technology, Inc. and Emageon Corporation. Since December 2018 he has also served as a board member of KPX, LLC, an environmental, social and governance advisory firm serving the investment and advisory sectors. Prior to joining HMC, Mr. Brooke practiced law for a decade. Mr. Brooke received a B.S. in Business Management and a J.D. from the University of Alabama. We believe Mr. Brooke's extensive business experience and deep financial knowledge qualifies him to serve on our board of directors.

Richard Douglas, PhD has served on our board of directors since February 2018. Dr. Douglas formerly served as the senior vice president of corporate development of Genzyme Corporation where he worked from 1989 until 2011 when Genzyme was acquired by Sanofi. Prior to joining Genzyme, Dr. Douglas served in science and corporate development capacities at Integrated Genetics prior to its acquisition by Genzyme in 1989. Since 2011 Dr. Douglas has served as an adviser to RedSky Partners, a biotechnology-focused advisory firm and also as executive director of Labyrinth Choir, Inc. He is

chairman of the board of directors of AldeyraTherapeutics which he joined in 2016 and has been a board member of Novavax, Inc. since 2010. He has a B.S. in chemistry from the University of Michigan, where he now serves as chair of the National Advisory Board for the Office of Technology Transfer, and a Ph.D. in biochemistry from the University of California, Berkeley. We believe that Dr. Douglas's significant business experience and scientific background qualify him to serve on our board of directors.

Stanley C. Erck has served on our board of directors since March 2005. Mr. Erck has served as president and chief executive officer of Novavax, Inc. since April 2011 and as a director of Novavax since June 2009. Mr. Erck previously served as executive chairman of Novavax from February 2010 to April 2011 and interim chief financial officer from November 2017 to March 2018. From 2000 to 2008, Mr. Erck served as president and chief executive officer of Iomai Corporation, a developer of vaccines and immune system therapies, which was acquired in 2008 by Intercell AG. He also previously held leadership positions at Procept, a publicly traded immunology company, Integrated Genetics, now Sanofi Genzyme and Baxter International. Mr. Erck also served on the board of directors of BioCryst Pharmaceuticals from December 2008 to December 2018. Mr. Erck currently serves on the board of directors of MDBio Foundation. Mr. Erck received a B.S. in economics from the University of Illinois and an M.B.A. from the University of Chicago. We believe Ms. Erck’s public company board experience and extensive knowledge and experience in biotechnology qualify him to serve on our board of directors.

Rekha Hemrajani has served on our board of directors since June 2021. Ms. Hemrajani has served as Chief Executive Officer and Director of Jiya Acquisition Corporation since August 2020. She previously served as President and Chief Executive Officer of Aravive, Inc., a clinical-stage biotechnology company, from January 2020 to April 2020. From March 2019 to September 2019, Ms. Hemrajani served as the Chief Operating Officer and Chief Financial Officer of Arcus Biosciences, a biotechnology company. From March 2016 to March 2019, she served as Chief Operating Officer of FLX Bio, Inc. (now RAPT Therapeutics, Inc.), a biotechnology company. Ms. Hemrajani currently serves as a director of the publicly held company ALX Oncology Holdings, Inc. and previously served as a director of Adverum Biotechnologies, Inc. and Aravive, Inc. She holds a B.S. in Economics and Computer Science from the University of Michigan and an M.B.A. from the Kellogg Graduate School of Management at Northwestern University. We believe Ms. Hemrajani is qualified to serve on our board of directors due to her executive and financial experience at multiple companies in the biopharmaceutical and biotechnology industries.

John Johnston has served on our board of directors since January 2016. Mr. Johnston previously served on the board of directors of Midatech Pharma from December 2014 to February 2019, Flow Group from August 2013 to October 2017, Action Hotels from December 2013 to December 2018 and Constellation Healthcare Technologies from December 2014 to January 2017. From August 2011 to April 2013 Mr. Johnston served as managing director of institutional sales at Nomura Code, and from 2008 to 2011, he was director of sales and trading at Seymour Pierce. In 2003, Mr. Johnston founded Revera Asset Management, where he oversaw an investment trust, a unit trust and a hedge fund, which he ran until 2007. Mr. Johnston began his investment career at the Royal Bank of Scotland and previously held positions at Legg Mason Investors and Murray Johnston. Mr. Johnston received his B.A. in commerce from Abertay University and his M.B.A. from the University of Dundee. We believe Mr. Johnston’s executive leadership and operational experience qualify him to serve on our board of directors.

Art Mandell has served on our board of directors since May 2006. Mr. Mandell served as president and chief operating officer of Prestwick Pharmaceuticals, Inc. from October 2005 to August 2007. Prior to Prestwick, Mr. Mandell was president and chief executive officer and a director of Cellective Therapeutics, Inc. from 2004 to 2005, when it was acquired by Astra Zeneca/MedImmune. Before Cellective, Mr. Mandell served as president and chief executive officer and director of Stemron Corporation from 2001 to 2003, and as senior vice president and chief business officer of Human Genome Sciences, Inc. from 1997 to 2001. Mr. Mandell began his healthcare career at Syntex Pharmaceutical Corporation. Mr. Mandell received his B.S. from San Jose State University and his M.B.A. from Santa Clara University. We believe Mr. Mandell’s extensive knowledge and experience in both pharmaceuticals and biotechnology qualify him to serve on our board of directors.

Family Relationships

There are no family relationships among any of our directors or executive officers.

Composition of Our Board of Directors

Our business and affairs are managed under the direction of our board of directors. We currently have nine directors. Our board of directors may establish the authorized number of directors from time to time by resolution. In accordance with our fifteenth amended and restated certificate of incorporation, our board of directors is divided into three classes with staggered three-year terms. Each director serves until the election and qualification of successor directors at the annual meeting of stockholders, or until the director's earlier removal, resignation or death. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- the Class I directors are Doug Doerfler, Yasir Al-Wakeel and Rekha Hemrajani, whose terms will expire at our 2022 annual meeting of stockholders;
- the Class II directors are Art Mandell and Stanley Erck, whose terms will expire at our 2023 annual meeting of stockholders; and
- the Class III directors are Will Brooke, John Johnston, J. Stark Thompson and Richard Douglas, PhD, whose terms will expire at our 2021 annual meeting of stockholders.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control.

Director Independence

In connection with this offering, our common stock has been approved for listing on the Nasdaq Global Select Market. Under the rules of Nasdaq, independent directors must comprise a majority of a listed company's board of directors within a specified period following the completion of this offering. In addition, the rules of Nasdaq require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent. Under the rules of Nasdaq, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Securities Exchange Act of 1934, as amended, or the Exchange Act. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (i) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries; or (ii) be an affiliated person of the listed company or any of its subsidiaries. We intend to satisfy the audit committee independence requirements of Rule 10A-3 as of the completion of this offering. Additionally, compensation committee members must not have a relationship with us that is material to the director's ability to be independent from management in connection with the duties of a compensation committee member.

Our board of directors has undertaken a review of the independence of each director. Based on information provided by each director concerning her or his background, employment and affiliations, our board of directors has determined that none of our directors to be serving upon the listing of our common stock on Nasdaq, other than Mr. Doerfler, has any relationships that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the Nasdaq listing standards. In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our shares by each non-employee director and the transactions described in the section titled "Certain Relationships and Related Party Transactions."

Committees of Our Board of Directors

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each of the

committees of our board of directors are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors. Our board of directors may establish other committees as it deems necessary or appropriate from time to time. Upon completion of this offering, copies of each charter will be posted on our website at www.maxcyte.com. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of such website address in this prospectus is an inactive textual reference only.

Audit Committee

Our audit committee consists of Yasir Al-Wakeel, Will Brooke, John Johnston and Art Mandell. Our board of directors has determined that each member of the audit committee satisfies the independence requirements under Nasdaq listing standards and Rule 10A-3(b)(1) of the Exchange Act of 1934, as amended, or the Exchange Act. The chair of our audit committee is Mr. Brooke, whom our board of directors has determined is an "audit committee financial expert" within the meaning of SEC regulations. Each member of our audit committee can read and understand fundamental financial statements in accordance with applicable requirements. In arriving at these determinations, our board of directors has examined each audit committee member's scope of experience and the nature of their employment in the corporate finance sector.

The primary purpose of the audit committee is to discharge the responsibilities of our board of directors with respect to our corporate accounting and financial reporting processes, systems of internal control and financial statement audits and to oversee our independent registered public accounting firm. Specific responsibilities of our audit committee include:

- helping our board of directors oversee our corporate accounting and financial reporting processes;
- managing the selection, engagement, qualifications, independence and performance of a qualified firm to serve as the independent registered public accounting firm to audit our financial statements;
- discussing the scope and results of the audit with the independent registered public accounting firm, and reviewing, with management and the independent accountants, our interim and year-end operating results;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviewing related person transactions;
- obtaining and reviewing a report by the independent registered public accounting firm at least annually that describes our internal quality control procedures, any material issues with such procedures and any steps taken to deal with such issues when required by applicable law; and
- approving or, as permitted, pre-approving, audit and permissible non-audit services to be performed by the independent registered public accounting firm.

Our audit committee will operate under a written charter, to be effective prior to the completion of this offering, that satisfies the applicable Nasdaq listing standards.

Compensation Committee

Our compensation committee consists of J. Stark Thompson, Will Brooke, Stan Erck and Rekha Hemrajani. The chair of our compensation committee is Dr. Thompson. Our board of directors has determined that each member of the compensation committee is independent under the Nasdaq listing standards and a "non-employee director" as defined in Rule 16b-3 promulgated under the Exchange Act.

The primary purpose of our compensation committee is to discharge the responsibilities of our board of directors in overseeing our compensation policies, plans and programs and to review and determine the compensation to be paid to our executive officers, non-executive directors and other senior management, as appropriate. Specific responsibilities of our compensation committee include:

- reviewing and approving the compensation of our chief executive officer, other executive officers and senior management;

- reviewing, evaluating and recommending to our board of directors the succession plans for our executive officers;
- reviewing and recommending to our board of directors the compensation paid to our non-executive directors;
- administering our equity incentive plans and other benefit programs;
- reviewing, adopting, amending and terminating incentive compensation and equity plans, severance agreements, profit sharing plans, bonus plans, change-of-control protections and any other compensatory arrangements for our executive officers and other senior management; and
- reviewing and establishing general policies relating to compensation and benefits of our employees, including our overall compensation philosophy.

Our compensation committee will operate under a written charter, to be effective prior to the completion of this offering, that satisfies the applicable Nasdaq listing standards.

Nominating and Corporate Governance Committee

Our nominating and corporate governance committee consists of Art Mandell, Stan Erck and Richard Douglas. The chair of our nominating and corporate governance committee is Mr. Mandell. Our board of directors has determined that each member of the nominating and corporate governance committee is independent under the Nasdaq listing standards.

Specific responsibilities of our nominating and corporate governance committee will include:

- identifying and evaluating candidates, including the nomination of incumbent directors for reelection and nominees recommended by stockholders, to serve on our board of directors;
- considering and making recommendations to our board of directors regarding the composition and chairmanship of the committees of our board of directors;
- instituting plans or programs for the continuing education of our board of directors and orientation of new directors;
- developing and making recommendations to our board of directors regarding corporate governance guidelines and matters; and
- overseeing periodic evaluations of the board of directors' performance, including committees of the board of directors.

Our nominating and corporate governance committee will operate under a written charter, to be effective prior to the completion of this offering, that satisfies the applicable Nasdaq listing standards.

Code of Conduct

We have adopted a Code of Conduct that applies to all our employees, officers and directors. This includes our principal executive officer, principal financial officer and principal accounting officer or controller, or persons performing similar functions. The full text of our Code of Conduct will be posted on our website at www.maxcyte.com. We intend to disclose on our website any future amendments of our Code of Conduct or waivers that exempt any principal executive officer, principal financial officer, principal accounting officer or controller, persons performing similar functions or our directors from provisions in the Code of Conduct. Information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus, and you should not consider information on our website to be part of this prospectus.

Compensation Committee Interlocks and Insider Participation

None of the members of the compensation committee are currently, or have been at any time, one of our officers or employees. None of our executive officers currently serve, or have served during the last year, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

Non-Employee Director Compensation

We have historically provided our non-employee directors with an annual cash retainer as well as additional annual retainers for service as chair of the board and service as chair or member of the board's committees. The fees for committee service are in addition to the annual cash retainer for board service.

Position		2020 Annual Cash Retainer (January 1, 2020 – March 31, 2021)	2021 Annual Cash Retainer (As of April 1, 2021)
Board of Directors	Chair	$67,500	$80,000
	Member	$40,000	$40,000
Audit Committee	Chair	$15,000	$20,000
	Member	$8,000	$10,000
Compensation Committee	Chair	$12,000	$14,000
	Member	$6,000	$6,000
Nominating & Corporate Governance Committee	Chair	$8,000	$10,000
	Member	—	$5,000

In addition to annual cash retainers, our non-employee directors have been granted options to purchase shares of our common stock under our LTIP. From time to time, our non-employee directors are also reimbursed upon request for out-of-pocket expenses incurred in connection with their attendance at meetings of our board of directors.

2020 Director Compensation Table

The following table sets forth information regarding the compensation earned for service on our board of directors in 2020 by our non-employee directors. Doug Doerfler, our President and Chief Executive Officer, and Ron Holtz, our Senior Vice President and Chief Accounting Officer, were also members of our board of directors but did not receive any additional compensation for service as directors during the year.

Name	Fees Earned or Paid in Cash ($)	Option Awards(1)(2) ($)	Total ($)
J. Stark Thompson, PhD	79,500	22,906	102,406
Will Brooke	61,000	22,906	83,906
Richard Douglas, PhD	40,000	22,906	62,906
Stanley Erck	46,000	22,906	68,906
John Johnston	48,000	22,906	70,906
Art Mandell	56,000	22,906	78,906

(1) This column reflects the full grant date fair value of options granted during the year measured pursuant to Financial Accounting Standard Board Accounting Standards Codification Topic 718, or ASC 718, the basis for computing stock-based compensation in our financial statements. The assumptions we used in valuing options are described in Note 2 to our financial statements included elsewhere in this prospectus.

(2) The following table provides information regarding the aggregate number of option awards granted to our non-employee directors that were outstanding as of December 31, 2020:

Name	
J. Stark Thompson, PhD	241,333
Will Brooke	142,500
Richard Douglas, PhD	94,700
Stanley Erck	265,067
John Johnston	108,417
Art Mandell	122,000

EXECUTIVE COMPENSATION

Our named executive officers, or NEOs, for the fiscal year ended December 31, 2020, consisting of our principal executive officer and the next two most highly compensated executive officers serving as of December 31, 2020, were:

- Doug Doerfler, our president and chief executive officer;
- Amanda L. Murphy, our chief financial officer; and
- Brad Calvin, our former chief commercial officer.

2020 Summary Compensation Table

The following table presents all of the compensation awarded to or earned by or paid to our named executive officers for the fiscal year ended December 31, 2020.

Name and Principal Position	Salary ($)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)(2)	All Other Compensation ($)(3)	Total ($)
Doug Doerfler	518,000	332,263	356,125	17,339	1,223,727
President, Chief Executive Officer and Director					
Amanda L. Murphy(4)	125,758	2,425,826	222,466	4,245	2,778,295
Chief Financial Officer					
Brad Calvin(5)	371,667	368,106	334,800	17,516	1,092,089
Former Chief Commercial Officer					

(1) Amounts reported represent the aggregate grant date fair value of the stock options granted to our named executive officers during fiscal year 2020 under our LTIP, computed in accordance with ASC Topic 718. The assumptions used in calculating the grant date fair value of the stock options reported in this column are set forth in the notes to our audited financial statements included elsewhere in this prospectus. This amount does not reflect the actual economic value that may be realized by the named executive officer upon the exercise of the options or the sale of the underlying shares.

(2) Represents amounts paid pursuant to our annual incentive compensation program, described below.

(3) Consists of matching contributions under our 401(k) plan paid by us during 2020 and de minimis incentives provided to all employees based on company-wide sales performance.

(4) Ms. Murphy began serving as our chief financial officer in September 2020.

(5) Mr. Calvin ceased serving as an executive officer in May 2021.

Narrative to the Summary Compensation Table

Performance-Based Bonuses

Each of our executive officers is eligible to receive performance bonus under our annual incentive compensation program.

Under our 2020 annual incentive compensation program, each of our named executive officers was eligible to receive a cash incentive payment equal to (1) his or her target incentive, as a percentage of annual base salary, multiplied by (2) the percentage achievement of certain 2020 corporate goals established by our compensation committee in its sole discretion, subject to the named executive officer remaining employed by us through the payment date.

Mr. Doerfler's target incentive was set at 55% of his annual base salary, Ms. Murphy's at 40% of her annual base salary, and Mr. Calvin's at 60% of his annual base salary. The corporate goals used for purposes of the 2020 annual incentive compensation program included revenue, EBITDA, and targets

related to our CARMA program and licensing. Our compensation committee determined that the percentage achievement of the applicable corporate goals was 125% for Mr. Doerfler and Ms. Murphy, and 135% for Mr. Calvin. As a result, our compensation committee approved a cash incentive payment for each named executive officer in the amounts reflected above in the "Non-Equity Incentive Plan Compensation" column of the Summary Compensation Table. Each named executive's cash incentive payment for 2020 was paid in the first quarter of 2021.

Outstanding Equity Awards as of December 31, 2020

The following table presents estimated information regarding outstanding equity awards held by our named executive officers as of December 31, 2020. See "— Equity Incentive Plans — Long-Term Incentive Plan" below for additional information.

	Option Awards				
Name	Number of Securities Underlying Unexercised Options Exercisable	Number of Securities Underlying Unexercised Options Unexercisable	Option Exercise Price (£)(1)	Option Exercise Price ($)(1)	Option Expiration Date
Doug Doerfler	1,145,080	—	N/A	0.04	11/11/2024
	296,000	—	0.82	1.12	6/13/2026
	252,833	43,167(2)	2.42	3.31	7/14/2027
	178,833	117,167(3)	2.43	3.32	7/18/2028
	170,712	219,488(4)	1.78	2.43	3/4/2029
	89,421	300,779(5)	1.36	1.86	1/20/2030
Amanda L. Murphy	71,875	1,078,125(6)	3.30	4.51	9/8/2030
Brad Calvin	166,667	33,333(7)	2.50	3.42	7/14/2027
	75,521	49,479(3)	2.43	3.32	7/18/2028
	54,687	70,313(4)	1.78	2.43	3/4/2029
	28,646	96,354(5)	1.36	1.86	1/20/2030
	7,813	117,187(8)	3.30	4.51	9/15/2030

(1) Option exercise prices have historically been expressed in British pounds, other than the option for 1,145,080 shares granted to Mr. Doerfler as indicated above, and are equal to the closing price of our common stock on the AIM on the date of grant. Conversions to U.S. dollars are provided for convenience using an exchange rate of £1.00 = $1.3662, which was the rate published by the U.S. Federal Reserve as of December 31, 2020. Following this offering, option exercise prices for future grants will be expressed in U.S. dollars based on the closing price of our common stock on the Nasdaq Global Select Market on the date of grant.

(2) Represents an option to purchase shares of our common stock granted on July 14, 2017. The shares underlying this option vest, as follows: 1/16th of the shares vested 90 calendar days following the grant date and the remainder vests monthly in 45 monthly installments thereafter, subject to the applicable holder's continued service to our company through the applicable vesting date.

(3) Represents an option to purchase shares of our common stock granted on July 18, 2018. The shares underlying this option vest, as follows: 1/16th of the shares vested 90 calendar days following the grant date and the remainder vests monthly in 45 monthly installments thereafter, subject to the applicable holder's continued service to our company through the applicable vesting date.

(4) Represents an option to purchase shares of our common stock granted on March 4, 2019. The shares underlying this option vest, as follows: 1/16th of the shares vested 90 calendar days following the grant date and the remainder vests monthly in 45 monthly installments thereafter, subject to the applicable holder's continued service to our company through the applicable vesting date.

(5) Represents an option to purchase shares of our common stock granted on January 20, 2020. The

shares underlying this option vest, as follows: 1/16th of the shares vested 90 calendar days following the grant date and the remainder vests monthly in 45 monthly installments thereafter, subject to the applicable holder's continued service to our company through the applicable vesting date.

(6) Represents an option to purchase shares of our common stock granted on September 8, 2020. The shares underlying this option vest, as follows: 1/16th of the shares vested 90 calendar days following the grant date and the remainder vests monthly in 45 monthly installments thereafter, subject to the applicable holder's continued service to our company through the applicable vesting date.

(7) Represents an option to purchase shares of our common stock granted on July 14, 2017. The shares underlying this option vest, as follows: 1/16th of the shares vested 90 calendar days following the grant date and the remainder vests monthly in 45 monthly installments thereafter, subject to the applicable holder's continued service to our company through the applicable vesting date.

(8) Represents an option to purchase shares of our common stock granted on September 15, 2020. The shares underlying this option vest, as follows: 1/16th of the shares vested 90 calendar days following the grant date and the remainder vests monthly in 45 monthly installments thereafter, subject to the applicable holder's continued service to our company through the applicable vesting date.

Employment Arrangements

Severance Agreements

We have entered into severance agreements with each of the NEOs in connection with his or her employment with us, which sets forth the terms and conditions of his or her specified payments and benefits in connection with a termination of employment in certain circumstances. Our goal in providing these severance and change in control payments and benefits is to offer sufficient cash continuity protection such that the NEOs will focus their full time and attention on the requirements of the business rather than the potential implications of a qualifying employment termination or change in control for their respective positions. We prefer to have certainty regarding the potential severance amounts payable to the NEOs, rather than negotiating severance at the time that an NEO's employment terminates. We have also determined that accelerated vesting provisions with respect to outstanding equity awards in connection with a qualifying termination of employment in certain circumstances are appropriate because they encourage our NEOs to stay focused on the business in those circumstances, rather than focusing on the potential implications of the termination of employment for them personally. The material terms of the severance agreements we have entered into with our NEOs are summarized below.

Doug Doerfler

We entered into a severance agreement dated July 20, 2021, setting forth the terms of Mr. Doerfler's severance eligibility. Under Mr. Doerfler's severance agreement, if he is terminated by us other than for "cause" (as defined in the severance agreement), or if he resigns for "good reason" (as defined in the severance agreement), and if such termination or resignation occurs on the date of or within 24 months following a "change of control" (as defined in the severance agreement), then Mr. Doerfler will be eligible to receive (i) payment of his monthly base salary (calculated as his total base salary during the 12 month period prior to his date of termination divided by 12) for the 18 months following his departure (less applicable tax withholdings), (ii) 75% of his "target bonus" (as defined in the severance agreement) (less applicable tax withholdings) paid in monthly installments over 18 months, (iii) COBRA premium coverage for up to 18 months, and (iv) full acceleration of the vesting of the unvested shares subject to his outstanding stock options. As a condition to receiving the foregoing severance benefits, Mr. Doerfler must sign and not revoke a release agreement in a form presented by us.

Under Mr. Doerfler's severance agreement, if he is terminated by us other than for "cause," or if he resigns for "good reason," and if such termination or resignation occurs at any time prior to a "change of control," then Mr. Doerfler will be eligible to receive (i) payment of his monthly base salary (calculated as his total base salary during the 12 month period prior to his date of termination divided by 12) for the 12 months following his departure (less any amounts paid to Mr. Doerfler during such 12 month period

under our Short Term or Long Term Disability Plan, and less applicable tax withholdings), (ii) COBRA premium coverage for up to 12 months, and (iii) if the termination or resignation occurs within 180 days prior to a "change of control," then Mr. Doerfler shall also receive full acceleration of the vesting of the unvested shares subject to his outstanding stock options. As a condition to receiving the foregoing severance benefits, Mr. Doerfler must sign and not revoke a release agreement in a form presented by us.

Amanda Murphy

We entered into a severance agreement dated January 21, 2021, setting forth the terms of Ms. Murphy's severance eligibility. Under Ms. Murphy's severance agreement, if she is terminated by us other than for "cause" (as defined in the severance agreement), or if she resigns for "good reason" (as defined in the severance agreement), and if such termination or resignation occurs on the date of or within 24 months following a "change of control" (as defined in the severance agreement), then Ms. Murphy will be eligible to receive (i) payment of her monthly base salary (calculated as her total base salary during the 12 month period prior to her date of termination divided by 12) for the 9 months following her departure (less applicable tax withholdings), (ii) 75% of her "target bonus" (as defined in the severance agreement) (less applicable tax withholdings) paid in monthly installments over 9 months, (iii) COBRA premium coverage for up to 9 months, and (iv) full acceleration of the vesting of the unvested shares subject to her outstanding stock options. As a condition to receiving the foregoing severance benefits, Ms. Murphy must sign and not revoke a release agreement in a form presented by us.

Under Ms. Murphy's severance agreement, if she is terminated by us other than for "cause," or if she resigns for "good reason," and if such termination or resignation occurs at any time prior to a "change of control," then Ms. Murphy will be eligible to receive (i) payment of her monthly base salary (calculated as her total base salary during the 12 month period prior to her date of termination divided by 12) for the 9 months following her departure (less any amounts paid to Ms. Murphy during such 9 month period under our Short Term or Long Term Disability Plan, and less applicable tax withholdings), (ii) COBRA premium coverage for up to 9 months, and (iii) if the termination or resignation occurs within 180 days prior to a "change of control," then Ms. Murphy shall also receive full acceleration of the vesting of the unvested shares subject to her outstanding stock options. As a condition to receiving the foregoing severance benefits, Ms. Murphy must sign and not revoke a release agreement in a form presented by us.

Brad Calvin

We entered into a severance agreement dated January 11, 2021, setting forth the terms of Mr. Calvin's severance eligibility. Under Mr. Calvin's severance agreement, if he is terminated by us other than for "cause" (as defined in the severance agreement), or if he resigns for "good reason" (as defined in the severance agreement), and if such termination or resignation occurs on the date of or within 24 months following a "change of control" (as defined in the severance agreement), then Mr. Calvin will be eligible to receive (i) payment of his monthly base salary (calculated as his total base salary during the 12 month period prior to his date of termination divided by 12) for the 9 months following his departure (less applicable tax withholdings), (ii) 75% of his "target bonus" (as defined in the severance agreement) (less applicable tax withholdings) paid in monthly installments over 9 months, (iii) COBRA premium coverage for up to 9 months, and (iv) full acceleration of the vesting of the unvested shares subject to his outstanding stock options. As a condition to receiving the foregoing severance benefits, Mr. Calvin must sign and not revoke a release agreement in a form presented by us.

Under Mr. Calvin's severance agreement, if he is terminated by us other than for "cause," or if he resigns for "good reason," and if such termination or resignation occurs at any time prior to a "change of control," then Mr. Calvin will be eligible to receive (i) payment of his monthly base salary (calculated as his total base salary during the 12 month period prior to his date of termination divided by 12) for the 9 months following his departure (less any amounts paid to Mr. Calvin during such 9 month period under our Short Term or Long Term Disability Plan, and less applicable tax withholdings), (ii) COBRA premium coverage for up to 9 months, and (iii) if the termination or resignation occurs within 180 days prior to a "change of control," then Mr. Calvin shall also receive full acceleration of the vesting of the

unvested shares subject to his outstanding stock options. As a condition to receiving the foregoing severance benefits, Mr. Calvin must sign and not revoke a release agreement in a form presented by us.

Health and Welfare and Retirement Benefits

All of our current named executive officers are eligible to participate in our employee benefit plans, including our medical, dental, vision, disability and life insurance plans, in each case on the same basis as all of our other employees. We do not provide perquisites or personal benefits to our named executive officers other than those provided generally to all employees.

401(k) Plan

We maintain a tax-qualified retirement plan, the 401(k) Plan, that provides eligible employees in the United States with an opportunity to save for retirement on a tax-advantaged basis. Under the 401(k) Plan, we may provide matching and other discretionary contributions. We currently match employee contributions equal to 50% of the salary deferral contributions, with a maximum company contribution of 3% of the employee's eligible compensation. All contributions, including employer matching and discretionary contributions, vest based upon the number of years of service of the recipient employee, from 0% for employees with less than one year of service to 100% for employees with at least four years of service. Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The 401(k) Plan is intended to qualify under Sections 401(a) and 501(a) of the Internal Revenue Code, or Code.

Equity Incentive Plans

Long-Term Incentive Plan

Our Board of Directors adopted our Long-Term Incentive Plan, or our LTIP, in 2000. Our LTIP was amended and restated on May 17, 2016. No further awards will be granted under our LTIP after the effectiveness of our 2021 Equity Incentive Plan, or our 2021 Plan, however, any awards outstanding under our LTIP will continue to be governed by their existing terms.

Awards. Our LTIP provides for the grant of incentive stock options, or ISOs, nonstatutory stock options, or NSOs, performance awards, restricted stock and incentive shares. ISOs may be granted only to our employees and to any of our affiliate's employees. All other awards may be granted to our employees, directors, consultants, or independent contractors or those of our affiliates.

Authorized Shares. As of December 31, 2020, an aggregate of 4,175,737 shares of our common stock were reserved for issuance under our LTIP and stock options to purchase 7,609,667 shares of our common stock were outstanding under our LTIP.

Plan Administration. Our board of directors or one or more committees or persons appointed by our board of directors may administer our LTIP (in each case, the administrator). Subject to the terms of the LTIP, the administrator has the power to, among other things, determine who will be granted awards and the terms and conditions of such awards, and interpret, prescribe, amend and make all other determinations it deems necessary or advisable for the administration of our LTIP.

Stock Options. Stock options have been granted under our LTIP. The administrator determines the terms and conditions of stock options, including, but not limited to, the number of shares subject to the stock option, the exercise price of the stock option, and the time(s) at which the stock option may become exercisable. The exercise price of stock options granted under our LTIP generally cannot be less than 100% of the fair market value of a share of our common stock on the grant date. The term of a stock option may not exceed ten years from the grant date. With respect to any participant who owns more than 10% of the voting power of all classes of our outstanding stock, the term of an incentive stock option granted to such participant must not exceed five years from the grant date and the per share exercise price cannot be less than 110% of the fair market value of a share of our common stock on the grant date. Subject to the terms of the LTIP and as provided for in an individual award agreement, the exercise price of a stock option may be paid by (i) a net exercise arrangement; (ii) a cashless exercise or same day sale; (iii) the tender of shares of our common stock previously owned by the participant;

or (iv) a partial payment may be made by delivery of a promissory note to us. In the event a participant's employment with us is terminated for any reason other than by us for cause (as defined in each individual award agreement), the administrator may extend the exercise period of any options held by such participant; provided however, that such extended post-termination exercise period may not extend beyond the earlier of (A) the seventh anniversary of such termination, or (B) the tenth anniversary of the date the stock option is granted.

Changes to Capital Structure. In the event any change is made to our common stock, such as by reason of any stock split, stock dividend, or recapitalization, appropriate adjustments shall be made to (i) the maximum number and class of securities issuable under the plan, (ii) the number and class of securities subject to outstanding awards, and (iii) the exercise price of each outstanding option.

Exchange Transactions. In the event of an exchange transaction (as defined in the LTIP), our board of directors may take such actions as it deems necessary, including, without limitation (i) accelerating the vesting of outstanding options, either in whole or in part; or (ii) if, as part of the exchange transaction, our stockholders are receiving stock of the acquiring company as consideration, converting outstanding options in whole or in part into options to purchase shares of the acquiring company

Amendment or Termination. Our board of directors may amend, alter or terminate the LTIP at any time. However, our board of directors will obtain stockholder approval of any amendment to the LTIP if necessary to comply with applicable laws, and will obtain the approval of each affected participant if such amendment, alteration or termination would adversely affect such participants rights under their award. As noted above, no further awards will be granted under our LTIP after the effectiveness of our 2021 Plan; however, awards outstanding under our LTIP will continue to be governed by their existing terms.

2021 Equity Incentive Plan

Our board of directors intends to adopt our 2021 Plan, subject to the approval of our stockholders, following this offering. Our 2021 Plan will not become effective unless and until it has been approved by our stockholders, and no grants will be made under our 2021 Plan prior to its effectiveness. Once our 2021 Plan becomes effective, no further grants will be made under our LTIP.

Awards. Our 2021 Plan will provide for the grant of ISOs within the meaning of Section 422 of the Code, to our employees and our parent and subsidiary corporations' employees, and for the grant of NSOs, stock appreciation rights, restricted stock awards, restricted stock unit awards, performance awards and other forms of awards to our employees, directors and consultants and any of our affiliates' employees and consultants.

Authorized Shares. Initially, the maximum number of shares of our common stock that may be issued under our 2021 Plan after it becomes effective will not exceed a number of shares of our common stock, equal to the sum of (a) any shares that remain available for the issuance of awards under our LTIP as of immediately prior to the time our 2021 Plan becomes effective, (b) a number of new shares that in combination with the shares in clause (a) will not exceed 4,000,000 and (c) any shares of our common stock subject to outstanding stock options or other stock awards granted under our LTIP that, on or after our 2021 Plan becomes effective, terminate or expire prior to exercise or settlement; are not issued because the award is settled in cash; are forfeited because of the failure to vest; or are reacquired or withheld (or not issued) to satisfy a tax withholding obligation or the purchase or exercise price. As of July 26, 2021, the maximum number of shares represented by clause (c) is approximately 12,310,515 shares. In addition, the number of shares of our common stock reserved for issuance under our 2021 Plan, if approved, will automatically increase on January 1st of each year for a period of ten years, beginning on January 1, 2022 and continuing through January 1, 2031, in an amount equal to (1) 5% of the total number of shares of our common stock outstanding on December 31 of the immediately preceding year, or (2) a lesser number of shares determined by our board of directors no later than December 31 of the immediately preceding year. The maximum number of shares of our common stock that may be issued on the exercise of ISOs under our 2021 Plan will be equal to three multiplied by the share reserve.

Shares subject to stock awards granted under our 2021 Plan that expire or terminate without being exercised in full or that are paid out in cash rather than in shares will not reduce the number of shares available for issuance under our 2021 Plan. Shares withheld under a stock award to satisfy the exercise, strike or purchase price of a stock award or to satisfy a tax withholding obligation will not reduce the number of shares available for issuance under our 2021 Plan. If any shares of our common stock issued pursuant to a stock award are forfeited back to or repurchased or reacquired by us (i) because of a failure to meet a contingency or condition required for the vesting of such shares; (ii) to satisfy the exercise, strike or purchase price of a stock award; or (iii) to satisfy a tax withholding obligation in connection with a stock award, the shares that are forfeited or repurchased or reacquired will revert to and again become available for issuance under our 2021 Plan.

Plan Administration. Our board of directors, or a duly authorized committee of our board of directors, will administer our 2021 Plan. Our board of directors may delegate to one or more of our officers the authority to (i) designate employees (other than officers) to receive specified stock awards; and (ii) determine the number of shares subject to such stock awards. Under our 2021 Plan, our board of directors will have the authority to determine stock award recipients, the types of stock awards to be granted, grant dates, the number of shares subject to each stock award, the fair market value of our common stock and the provisions of each stock award, including the period of exercisability and the vesting schedule applicable to a stock award.

Under our 2021 Plan, our board of directors also generally will have the authority to effect, with the consent of any materially adversely affected participant and subject to the approval of our stockholders as may be required, (i) the reduction of the exercise, purchase, or strike price of any outstanding option or stock appreciation right; (ii) the cancellation of any outstanding option or stock appreciation right and the grant in substitution therefore of other awards, cash, or other consideration; or (iii) any other action that is treated as a repricing under generally accepted accounting principles.

Stock Options. ISOs and NSOs are granted under stock option agreements adopted by the administrator. The administrator will determine the exercise price for stock options, within the terms and conditions of our 2021 Plan, except the exercise price of a stock option generally will not be less than 100% of the fair market value of our common stock on the date of grant. Options granted under our 2021 Plan will vest at the rate specified in the stock option agreement as will be determined by the administrator.

The administrator will determine the term of stock options granted under our 2021 Plan, up to a maximum of 10 years. Unless the terms of an optionholder's stock option agreement, or other written agreement between us and the recipient, provide otherwise, if an optionholder's service relationship with us or any of our affiliates ceases for any reason other than disability, death, or cause, the optionholder may generally exercise any vested options for a period of three months following the cessation of service. This period may be extended in the event that exercise of the option is prohibited by applicable securities laws. If an optionholder's service relationship with us or any of our affiliates ceases due to death, or an optionholder dies within a certain period following cessation of service, the optionholder or a beneficiary may generally exercise any vested options for a period of 18 months following the date of death. If an optionholder's service relationship with us or any of our affiliates ceases due to disability, the optionholder may generally exercise any vested options for a period of 12 months following the cessation of service. In the event of a termination for cause, options generally terminate upon the termination date. In no event may an option be exercised beyond the expiration of its term.

Acceptable consideration for the purchase of common stock issued upon the exercise of a stock option will be determined by the administrator and may include (i) cash, check, bank draft or money order; (ii) a broker-assisted cashless exercise; (iii) the tender of shares of our common stock previously owned by the optionholder; (iv) a net exercise of the option if it is an NSO; or (v) other legal consideration approved by the administrator.

Unless the administrator provides otherwise, options or stock appreciation rights generally are not transferable except by will or the laws of descent and distribution. Subject to approval of the administrator or a duly authorized officer, an option may be transferred pursuant to a domestic relations order, official marital settlement agreement, or other divorce or separation instrument.

Tax Limitations on ISOs. The aggregate fair market value, determined at the time of grant, of our common stock with respect to ISOs that are exercisable for the first time by an award holder during any calendar year under all of our stock plans may not exceed $100,000. Options or portions thereof that exceed such limit will generally be treated as NSOs. No ISO may be granted to any person who, at the time of the grant, owns or is deemed to own stock possessing more than 10% of our total combined voting power or that of any of our parent or subsidiary corporations unless (i) the option exercise price is at least 110% of the fair market value of the stock subject to the option on the date of grant; and (ii) the term of the ISO does not exceed five years from the date of grant.

Restricted Stock Unit Awards. Restricted stock unit awards are granted under restricted stock unit award agreements adopted by the administrator. Restricted stock unit awards may be granted in consideration for any form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. A restricted stock unit award may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit award. Except as otherwise provided in the applicable award agreement, or other written agreement between us and the recipient, restricted stock unit awards that have not vested will be forfeited once the participant's continuous service ends for any reason.

Restricted Stock Awards. Restricted stock awards are granted under restricted stock award agreements adopted by the administrator. A restricted stock award may be awarded in consideration for cash, check, bank draft or money order, past or future services to us, or any other form of legal consideration that may be acceptable to our board of directors and permissible under applicable law. The administrator will determine the terms and conditions of restricted stock awards, including vesting and forfeiture terms. If a participant's service relationship with us ends for any reason, we may receive any or all of the shares of common stock held by the participant that have not vested as of the date the participant terminates service with us through a forfeiture condition or a repurchase right.

Stock Appreciation Rights. Stock appreciation rights are granted under stock appreciation right agreements adopted by the administrator. The administrator will determine the purchase price or strike price for a stock appreciation right, which generally will not be less than 100% of the fair market value of our common stock on the date of grant. A stock appreciation right granted under our 2021 Plan will vest at the rate specified in the stock appreciation right agreement as will be determined by the administrator. Stock appreciation rights may be settled in cash or shares of our common stock or in any other form of payment as determined by our board of directors and specified in the stock appreciation right agreement.

The administrator will determine the term of stock appreciation rights granted under our 2021 Plan, up to a maximum of 10 years. If a participant's service relationship with us or any of our affiliates ceases for any reason other than cause, disability, or death, the participant may generally exercise any vested stock appreciation right for a period of three months following the cessation of service. This period may be further extended in the event that exercise of the stock appreciation right following such a termination of service is prohibited by applicable securities laws. If a participant's service relationship with us, or any of our affiliates, ceases due to disability or death, or a participant dies within a certain period following cessation of service, the participant or a beneficiary may generally exercise any vested stock appreciation right for a period of 12 months in the event of disability and 18 months in the event of death. In the event of a termination for cause, stock appreciation rights generally terminate upon the termination date. In no event may a stock appreciation right be exercised beyond the expiration of its term.

Performance Awards. Our 2021 Plan will permit the grant of performance awards that may be settled in stock, cash or other property. Performance awards may be structured so that the stock or cash will be issued or paid only following the achievement of certain pre-established performance goals during a designated performance period. Performance awards that are settled in cash or other property are not required to be valued in whole or in part by reference to, or otherwise based on, our common stock.

The performance goals may be based on any measure of performance selected by our board of directors. The performance goals may be based on company-wide performance or performance of one or more business units, divisions, affiliates, or business segments, and may be either absolute or relative to the performance of one or more comparable companies or the performance of one or more relevant indices. Unless specified otherwise by our board of directors at the time the performance award is granted, our board will appropriately make adjustments in the method of calculating the attainment of performance goals as follows: (i) to exclude restructuring or other nonrecurring charges; (ii) to exclude exchange rate effects; (iii) to exclude the effects of changes to generally accepted accounting principles; (iv) to exclude the effects of any statutory adjustments to corporate tax rates; (v) to exclude the effects of items that are "unusual" in nature or occur "infrequently" as determined under generally accepted accounting principles; (vi) to exclude the dilutive effects of acquisitions or joint ventures; (vii) to assume that any business divested by us achieved performance objectives at targeted levels during the balance of a performance period following such divestiture; (viii) to exclude the effect of any change in the outstanding shares of our common stock by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends; (ix) to exclude the effects of stock based compensation and the award of bonuses under our bonus plans; (x) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles; and (xi) to exclude the goodwill and intangible asset impairment charges that are required to be recorded under generally accepted accounting principles.

Other Stock Awards. The administrator will be permitted to grant other awards based in whole or in part by reference to our common stock. The administrator will set the number of shares under the stock award (or cash equivalent) and all other terms and conditions of such awards.

Non-Employee Director Compensation Limit. The aggregate value of all compensation granted or paid to any non-employee director with respect to any calendar year, including awards granted and cash fees paid by us to such non-employee director, will not exceed $900,000 in total value, except such amount will increase to $1,400,000 for the first year for newly appointed or elected non-employee directors.

Changes to Capital Structure. In the event there is a specified type of change in our capital structure, such as a stock split, reverse stock split, or recapitalization, appropriate adjustments will be made to (i) the class and maximum number of shares reserved for issuance under our 2021 Plan, (ii) the class and maximum number of shares by which the share reserve may increase automatically each year, (iii) the class and maximum number of shares that may be issued on the exercise of ISOs, and (iv) the class and number of shares and exercise price, strike price, or purchase price, if applicable, of all outstanding stock awards.

Corporate Transactions. In the event of a corporate transaction (as defined below), unless otherwise provided in a participant's stock award agreement or other written agreement with us or one of our affiliates or unless otherwise expressly provided by the administrator at the time of grant, any stock awards outstanding under our 2021 Plan may be assumed, continued or substituted for by any surviving or acquiring corporation (or its parent company), and any reacquisition or repurchase rights held by us with respect to the stock award may be assigned to the successor (or its parent company). If the surviving or acquiring corporation (or its parent company) does not assume, continue or substitute for such stock awards, then (i) with respect to any such stock awards that are held by participants whose continuous service has not terminated prior to the effective time of the corporate transaction, or current participants, the vesting (and exercisability, if applicable) of such stock awards will be accelerated in full (or, in the case of performance awards with multiple vesting levels depending on the level of performance, vesting will accelerate at 100% of the target level) to a date prior to the effective time of the corporate transaction (contingent upon the effectiveness of the corporate transaction), and such stock awards will terminate if not exercised (if applicable) at or prior to the effective time of the corporate transaction, and any reacquisition or repurchase rights held by us with respect to such stock awards will lapse (contingent upon the effectiveness of the corporate transaction); and (ii) any such stock awards that are held by persons other than current participants will terminate if not exercised (if

applicable) prior to the effective time of the corporate transaction, except that any reacquisition or repurchase rights held by us with respect to such stock awards will not terminate and may continue to be exercised notwithstanding the corporate transaction.

In the event a stock award will terminate if not exercised prior to the effective time of a corporate transaction, the administrator may provide, in its sole discretion, that the holder of such stock award may not exercise such stock award but instead will receive a payment equal in value to the excess (if any) of (i) the value of the property the participant would have received upon the exercise of the stock award, over (ii) any per share exercise price payable by such holder, if applicable. In addition, any escrow, holdback, earn out or similar provisions in the definitive agreement for the corporate transaction may apply to such payment to the same extent and in the same manner as such provisions apply to the holders of our common stock.

Under our 2021 Plan, a "corporate transaction" is generally the consummation of (i) a sale or other disposition of all or substantially all of our consolidated assets; (ii) a sale or other disposition of at least 50% of our outstanding securities; (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation; or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Change in Control. Stock awards granted under our 2021 Plan may be subject to acceleration of vesting and exercisability upon or after a change in control (as defined below) as may be provided in the applicable stock award agreement or in any other written agreement between us or any affiliate and the participant, but in the absence of such provision, no such acceleration will automatically occur.

Under our 2021 Plan, a "change in control" is generally (i) the acquisition by any person or company of more than 50% of the combined voting power of our then outstanding stock; (ii) a merger, consolidation or similar transaction in which our stockholders immediately before the transaction do not own, directly or indirectly, more than 50% of the combined voting power of the surviving entity (or the parent of the surviving entity) in substantially the same proportions as their ownership immediately prior to such transaction; (iii) stockholder approval of a complete dissolution or liquidation; (iv) a sale, lease, exclusive license or other disposition of all or substantially all of our assets other than to an entity more than 50% of the combined voting power of which is owned by our stockholders in substantially the same proportions as their ownership of our outstanding voting securities immediately prior to such transaction; or (v) when a majority of our board of directors becomes comprised of individuals who were not serving on our board of directors on the date of the underwriting agreement related to this offering, or the incumbent board, or whose nomination, appointment, or election was not approved by a majority of the incumbent board still in office.

Plan Amendment or Termination. Our board of directors has the authority to amend, suspend, or terminate our 2021 Plan at any time, provided that such action does not materially impair the existing rights of any participant without such participant's written consent. Certain material amendments also require the approval of our stockholders. No ISOs may be granted after the tenth anniversary of the effective date of our 2021 Plan. No stock awards may be granted under our 2021 Plan while it is suspended or after it is terminated.

2021 Employee Stock Purchase Plan

Our board of directors intends to adopt our employee stock purchase plan, or our ESPP, subject to the approval of our stockholders, following this offering. The purpose of our ESPP will be to secure the services of new employees, to retain the services of existing employees and to provide incentives for such individuals to exert maximum efforts toward our success and that of our affiliates. If approved, our ESPP will include two components. One component will be designed to allow eligible U.S. employees to purchase our common stock in a manner that may qualify for favorable tax treatment under Section 423 of the Code. The other component will permit the grant of purchase rights that do not qualify for such favorable tax treatment in order to allow deviations necessary to permit participation by eligible employees who are foreign nationals or employed outside of the United States while complying with applicable foreign laws.

Share Reserve. Our ESPP will authorize the issuance of up to 1% of the shares of common stock outstanding as of immediately following this offering under purchase rights that may be granted to our employees or to employees of any of our designated affiliates. The number of shares of our common stock reserved for issuance will automatically increase on January 1 of each year for a period of ten years, beginning on January 1, 2022 and continuing through January 1, 2031, by the lesser of (i) 1% of the total number of shares of our common stock outstanding on December 31 of the immediately preceding year; and (ii) a number of shares equal to 3% of the shares of common stock outstanding as of immediately following this offering, except before our date of any such increase, our board of directors may determine that such increase will be less than the amount set forth in clauses (i) and (ii).

Administration. Our board of directors will administer our ESPP and may delegate its authority to administer our ESPP to our compensation committee. Our ESPP will be implemented through a series of offerings under which eligible employees are granted purchase rights to purchase shares of our common stock on specified dates during such offerings. Under our ESPP, our board of directors will be permitted to specify offerings with durations of not more than 27 months and to specify shorter purchase periods within each offering. Each offering will have one or more purchase dates on which shares of our common stock will be purchased for employees participating in the offering. Our ESPP will provide that an offering may be terminated under certain circumstances.

Payroll Deductions. Generally, all regular employees, including executive officers, employed by us or by any of our designated affiliates, will be eligible to participate in our ESPP and to contribute, normally through payroll deductions, up to 15% of their earnings (as defined in our ESPP) for the purchase of our common stock under our ESPP. Unless otherwise determined by our board of directors, common stock will be purchased for the accounts of employees participating in our ESPP at a price per share equal to the lesser of (i) 85% of the fair market value of a share of our common stock on the first day of an offering; or (ii) 85% of the fair market value of a share of our common stock on the date of purchase.

Limitations. Employees may have to satisfy one or more of the following service requirements before participating in our ESPP, as determined by our board of directors: (i) being customarily employed for more than 20 hours per week or (ii) being customarily employed for more than five months per calendar year. No employee will be permitted to purchase shares under our ESPP at a rate in excess of $25,000 worth of our common stock (based on the fair market value per share of our common stock at the beginning of an offering) for each calendar year such a purchase right is outstanding. Finally, no employee will be eligible for the grant of any purchase rights under our ESPP if immediately after such rights are granted, such employee has voting power over 5% or more of our outstanding capital stock measured by vote or value under Section 424(d) of the Code.

Changes to Capital Structure. Our ESPP will provide that in the event there occurs a change in our capital structure through such actions as a stock split, merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or similar transaction, our board of directors will make appropriate adjustments to: (i) the class(es) and maximum number of shares reserved under our ESPP; (ii) the class(es) and maximum number of shares by which the share reserve may increase automatically each year; (iii) the class(es) and number of shares subject to, and purchase price applicable to, outstanding offerings and purchase rights; and (iv) the class(es) and number of shares that are subject to purchase limits under ongoing offerings.

Corporate Transactions. Our ESPP will provide that in the event of a corporate transaction (as defined below), any then-outstanding rights to purchase our stock under our ESPP may be assumed, continued, or substituted for by any surviving or acquiring entity (or its parent company). If the surviving or acquiring entity (or its parent company) elects not to assume, continue, or substitute for such purchase rights, then the participants' accumulated payroll contributions will be used to purchase shares of our common stock within 10 business days before such corporate transaction, and such purchase rights will terminate immediately after such purchase.

Under our ESPP, a “corporate transaction” is generally the consummation of (i) a sale or other disposition of all or substantially all of our consolidated assets; (ii) a sale or other disposition of at least 50% of our outstanding securities; (iii) a merger, consolidation or similar transaction following which we are not the surviving corporation; or (iv) a merger, consolidation or similar transaction following which we are the surviving corporation but the shares of our common stock outstanding immediately prior to such transaction are converted or exchanged into other property by virtue of the transaction.

Amendment or Termination. Our board of directors will have the authority to amend or terminate our ESPP, except in certain circumstances such amendment or termination may not materially impair any outstanding purchase rights without the holder’s consent. We will obtain stockholder approval of any amendment to our ESPP as required by applicable law or listing requirements.

Limitations on Liability and Indemnification Matters

Our fifteenth amended and restated certificate of incorporation contains provisions that limit the liability of our directors to us or our stockholders for monetary damages for breach of fiduciary duty as a director to the fullest extent permitted by Delaware law. Delaware law provides that directors of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors, except liability for:

(1) any breach of the director’s duty of loyalty to the corporation or its stockholders;

(2) any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;

(3) unlawful payments of dividends or unlawful stock repurchases or redemptions; or

(4) any transaction from which the director derived an improper personal benefit.

If the Delaware General Corporation Law is amended after the effective date of our certificate of incorporation to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of our directors shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

Such limitation of liability does will not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our fifteenth amended and restated certificate of incorporation provides for us to indemnify our directors, officers, employees and other agents to the fullest extent permitted by Delaware law. Our amended and restated bylaws that will be in effect following the completion of this offering will provide that we are required to indemnify our directors and officers to the fullest extent permitted by Delaware law and may indemnify our other employees and agents. Our amended and restated bylaws will also provide that, on satisfaction of certain conditions, we will advance expenses incurred by a director or officer in advance of the final disposition of any action, suit or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by our board of directors. With certain exceptions, these agreements provide for indemnification for related expenses including attorneys’ fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe these provisions in our fifteenth amended and restated certificate of incorporation and amended and restated bylaws and these indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain customary directors’ and officers’ liability insurance.

The limitation of liability and indemnification provisions in our fifteenth amended and restated certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder’s investment may be adversely affected

to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, executive officers or persons controlling us, we have been informed that, in the opinion of the Securities and Exchange Commission, or SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Rule 10b5-1 Sales Plans

Our directors and officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades under parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they do not possess material nonpublic information, subject to compliance with the terms of our insider trading policy.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

Other than compensation arrangements for our directors and executive officers, which are described elsewhere in this prospectus, below we describe transactions since January 1, 2018 to which we were a party or will be a party, in which:

- the amounts involved exceeded or will exceed $120,000; and
- any of our directors, executive officers or holders of more than 5% of our capital stock, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest.

Equity Financings

2019 Placement

In February 2019, we issued and sold an aggregate of 5,908,319 shares of common stock at a purchase price of £1.70 per share, for an aggregate amount of £10.0 million (approximately $13.3 million as of the issue date). The following table summarizes the shares of common stock purchased by related persons.

Stockholder	Shares of Common Stock	Subscription Price (£)	Gross Proceeds to MaxCyte ($)
River and Mercantile Asset Management LLP(1)	662,350	1,125,995	1,488,002

(1) At the time of the offering River and Mercantile Asset Management LLP was a holder of 5% or more of our common stock.

2020 Placement

In May 2020, we issued and sold an aggregate of 19,181,423 shares of common stock at a purchase price of £1.31 per share, for an aggregate amount of £25.1 million (approximately $30.5 million as of the issue date), or the 2020 Placement. The following table summarizes the shares of common stock purchased by related persons.

Stockholder	Shares of Common Stock	Subscription Price (£)	Gross Proceeds to MaxCyte ($)
Casdin Partners Master Fund, L.P.(1)	9,281,334	12,158,547	14,765,097
Sofinnova Crossover I SLP(2)	4,331,289	5,673,988	6,890,378
River and Mercantile Asset Management LLP(3)	2,152,156	2,819,324	3,431,400

(1) Casdin Partners Master Fund, L.P. is a holder of 5% or more of our common stock.

(2) Sofinnova Crossover I SLP is a holder of 5% or more of our common stock.

(3) At the time of the offering River and Mercantile Asset Management LLP was a holder of 5% or more of our common stock.

2021 Placement

In February 2021, we issued and sold an aggregate of 5,740,000 shares of common stock at a purchase price of £7.00 per share, for an aggregate amount of £40.2 million (approximately $55.3 million as of the issue date). The following table summarizes the shares of common stock purchased by related persons.

Stockholder	Shares of Common Stock	Subscription Price (£)	Gross Proceeds to MaxCyte ($)
Casdin Partners Master Fund, L.P.(1)	890,000	6,230,000	8,579,931
Sofinnova Crossover I SLP(2)	330,000	2,310,000	3,184,612

(1) Casdin Partners Master Fund, L.P. is a holder of 5% or more of our common stock.

(2) Sofinnova Crossover I SLP is a holder of 5% or more of our common stock.

Rights to Exchange

In April 2020, in connection with the 2020 Placement, we provided Casdin and Sofinnova with certain rights to exchange their shares in certain circumstances. See the section titled “Description of Capital Stock — Rights to Exchange” for additional information.

Novavax Sublease

In November 2011, we entered into a Lease Agreement, as subsequently amended or restated, the Lease Agreement, with Novavax, Inc., or Novavax, covering the sublease of approximately 19,000 square feet of office and laboratory space. The sublease is currently set to expire in October 2023. Richard Douglas, PhD, a member of our board of directors, is a member of the board of directors of Novavax and Stanley Erck, a member of our board of directors, is the chief executive officer and a director of Novavax. Under the terms of the Lease Agreement, we paid Novavax $371,600, $416,800, $623,000, $154,800 and $158,700 for the years ended December 31, 2018, 2019 and 2020 and the three months ended March 31, 2020 and 2021, respectively.

Equity Grants to Directors and Executive Officers

We have granted stock options to certain of our directors and executive officers. For more information regarding the stock options and stock awards granted to our directors and named executive officers, see the sections titled “Management — Director Compensation” and “Executive Compensation.”

Indemnification Agreements

Our fifteenth amended and restated certificate of incorporation contains provisions limiting the liability of directors, and both such amended and restated certificate of incorporation and our amended and restated bylaws that will be in effect following the completion of this offering will provide that we will indemnify each of our directors and officers to the fullest extent permitted under Delaware law. Our fifteenth amended and restated certificate of incorporation and amended and restated bylaws will also provide our board of directors with discretion to indemnify our employees and other agents when determined appropriate by the board. In addition, we have entered into an indemnification agreement with each of our directors and executive officers, which requires us to indemnify them. For more information regarding these agreements, see the section titled “Executive Compensation — Limitations on Liability and Indemnification Matters.”

Policies and Procedures for Transactions with Related Persons

We have adopted a policy that our executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of any class of our common stock and any members of the immediate family of any of the foregoing persons are not permitted to enter into a related person transaction with us without the approval or ratification of our board of directors or our audit committee. Any request for us to enter into a transaction with an executive officer, director, nominee for election as a director, beneficial owner of more than 5% of any class of our common stock or any member of the immediate family of any of the foregoing persons, in which the amount involved exceeds $120,000 and such person would have a direct or indirect interest, must be presented to our board of directors or our audit committee for review, consideration and approval. In approving or rejecting any such proposal, our board of directors or our audit committee is to consider the material facts of the transaction, including whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person’s interest in the transaction.

The related person transactions policy also covers related party transactions under the AIM Rules, which contains a different definition of a related party to the definition of a related person set out above for U.S. purposes. The AIM Rules require that any transaction with a related party (pursuant to the definition in the AIM Rules) that exceeds 5% in any of the class tests set out in the AIM Rules, taking into account certain provisions relating to aggregation of transactions, should be announced without delay as soon as the terms of the transaction are agreed, and that the announcement should include certain specified information including a statement that our directors (with the exception of any director who is involved in the transaction as a related party) consider, having consulted with our nominated adviser for AIM, that the terms of the transaction are fair and reasonable insofar as our shareholders are concerned.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our shares as of June 1, 2021 by:

- each named executive officer;
- each of our directors;
- our directors and executive officers as a group; and
- each person or entity known by us to own beneficially more than 5% of our common stock (by number or by voting power).

We have determined beneficial ownership in accordance with the rules and regulations of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Except as indicated by the footnotes below, we believe, based on information furnished to us, that the persons and entities named in the table below have sole voting and sole investment power with respect to all shares that they beneficially own, subject to applicable community property laws.

Applicable percentage ownership before this offering is based on 84,719,345 shares of common stock outstanding as of June 1, 2021. Applicable percentage ownership after this offering is based on 98,189,559 shares of common stock outstanding immediately after the completion of this offering, assuming no exercise by the underwriters of their option to purchase additional shares of common stock from us. In computing the number of shares beneficially owned by a person and the percentage ownership of such person, we deemed to be outstanding all shares subject to options held by the person that are currently exercisable, or exercisable or would vest based on service-based vesting conditions within 60 days of June 1, 2021. However, except as described above, we did not deem such shares outstanding for the purpose of computing the percentage ownership of any other person.

Unless otherwise indicated, the address for each beneficial owner listed in the table below is c/o MaxCyte, Inc. 22 Firstfield Road, Suite 110, Gaithersburg, Maryland 20878.

		Percentage of Shares Beneficially Owned	
	Number of Shares Beneficially Owned	Before Offering	After Offering
Name of Beneficial Owner			
5% Stockholders:			
Casdin Partners Master Fund, L.P.(1)	12,171,334	14.4%	12.4%
Sofinnova Crossover I SLP(2)	4,661,289	5.5	4.7
Directors and Named Executive Officers:			
Doug Doerfler(3)	2,266,219	2.6	2.3
J. Stark Thompson, PhD(4)	288,255	*	*
Yasir Al-Wakeel	—	—	—
Ron Holtz(5)	946,443	1.1	1.0
Will Brooke(6)	117,906	*	*
Richard Douglas, PhD(7)	60,714	*	*
Stanley Erck(8)	478,822	*	*
Rekha Hemrajani	—	—	—
John Johnston(9)	195,004	*	*
Art Mandell(10)	462,488	*	*
Amanda Murphy(11)	239,583	*	*
Brad Calvin(12)	435,417	*	*
All directors and current executive officers as a group (11 persons)(13)	5,490,851	5.7	5.0

* Represents beneficial ownership of less than 1%.

(1) Casdin Capital, LLC is the investment adviser to Casdin Partners Master Fund, L.P., and Casdin Partners GP, LLC is the general partner of Casdin Partners Master Fund L.P. Eli Casdin is the managing member of Casdin Capital, LLC and Casdin Partners GP, LLC. As such, each of Casdin Capital, LLC, Casdin Partners GP, LLC and Eli Casdin may be deemed to beneficially own the securities held by Casdin Partners Master Fund, L.P. by virtue of their shared voting and investment control over Casdin Partners Master Fund, L.P. Each of Casdin Capital, LLC, Casdin Partners GP, LLC and Mr. Casdin disclaims beneficial ownership of such securities except to the extent of their respective pecuniary interest therein. The address of these persons and entities is 1350 Avenue of the Americas, Suite 2600, New York, NY 10019.

(2) The securities are held by Sofinnova Crossover I SLP, or Sofinnova Crossover. Sofinnova Partners SAS is the management company of Sofinnova Crossover and has voting and investment control over the securities. The address of Sofinnova Crossover is 7-11, boulevard Haussmann 75009 Paris, France.

(3) Consists of (i) 433,197 shares of common stock and (ii) 1,833,022 shares of common stock issuable upon the exercise of options exercisable as of July 31, 2021.

(4) Consists of (i) 110,918 shares of common stock and (ii) 177,337 shares of common stock issuable upon the exercise of options exercisable as of July 31, 2021.

(5) Consists of (i) 150,251 shares of common stock and (ii) 796,192 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

(6) Consists of (i) 50,302 shares of common stock and (ii) 67,604 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

(7) Consists of 60,714 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

(8) Consists of (i) 247,751 shares of common stock and (ii) 231,071 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

(9) Consists of (i) 120,583 shares of common stock and (ii) 74,421 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

(10) Consists of (i) 374,484 shares of common stock and (ii) 88,004 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

(11) Consists of 239,583 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

(12) Consists of 435,417 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

(13) Consists of (i) 1,487,486 shares of common stock and (ii) 3,567,948 shares of common stock issuable upon the exercise of options granted under our LTIP exercisable as of July 31, 2021.

DESCRIPTION OF CAPITAL STOCK

General

Our fifteenth amended and restated certificate of incorporation authorizes us to issue up to 400,000,000 shares of common stock, $0.01 par value per share, and 5,000,000 shares of preferred stock, $0.01 par value per share, all of which shares of preferred stock are undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time.

Common Stock

As of March 31, 2021, we had 84,689,559 shares of common stock outstanding, held of record by 280 stockholders.

Voting Rights

Each holder of common stock is entitled to one vote for each share of common stock held by such holder on all matters submitted to a vote of the stockholders. In all matters, other than the election of directors and except as otherwise required by law, our amended and restated certificate or bylaws, including any provisions requiring a separate vote of a class or series of our shares, the affirmative vote of a majority of the voting power of the shares present or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Our amended and restated bylaws provide that stockholders representing a majority of the voting power of our issued and outstanding capital stock, present in person, by remote communication, if applicable, or represented by proxy, shall constitute a quorum for the transaction of business at all meetings of the stockholders. The affirmative vote of holders of at least 75% of the voting power of all of the then-outstanding shares of capital stock, entitled to vote and voting together as a single class, is required to amend certain provisions of our fifteenth amended and restated certificate of incorporation, including provisions relating to amending our amended and restated bylaws and the certificate, the voting rights of our common stock, removal of directors, director liability and indemnification, vacancies on our board, special meetings, annual meetings, stockholder notices, actions by written consent and exclusive forum. Unless otherwise required by law or the fifteenth amended and restated certificate of incorporation, the amended and restated bylaws provide that the election of directors shall be decided by a plurality of the votes cast at a meeting of stockholders by the holders of stock entitled to vote in the election.

Dividends

Holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose. Dividends may be paid in cash, in property or in shares of our common stock. See the section titled “Dividend Policy”.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets.

Rights and Preferences

Holders of our common stock have no conversion, subscription or other rights, and there are no redemption, sinking fund provisions or pre-emptive rights applicable to our common stock.

Fully Paid and Nonassessable

All outstanding shares of our common stock are fully paid and non-assessable, and the shares of common stock to be issued upon completion of this offering will be fully paid and non-assessable.

Preferred Stock

Upon the closing of this offering, our board of directors may, without further action by our stockholders, fix the rights, preferences, privileges and restrictions of up to an aggregate of 5,000,000 shares of preferred stock in one or more series and authorize their issuance. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of such series, any or all of which may be greater than the rights of our common stock. The issuance of our preferred stock could adversely affect the voting power of holders of our common

stock and the likelihood that such holders will receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action. Upon the closing of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Warrants

In connection with a credit facility we issued the lender a warrant to purchase 71,168 shares of common stock at an exercise price of £1.09081 per share. The warrant is exercisable at any time through the tenth anniversary of issuance. The warrant is classified as a liability as its strike price is in a currency other than our functional currency. The warrant is recorded at fair value at the end of each reporting period with changes from the prior balance sheet date recorded on the consolidated statements of operations. See Note 6 to our financial statements included in this prospectus for more information.

Stock Options

As of March 31, 2021, 5,732,382 shares of common stock were issuable upon the exercise of outstanding stock options, at a weighted-average exercise price of $1.95 per share based on exchange rates as of March 31, 2021. For additional information regarding terms of our equity incentive plans, see the section titled “Executive and Director Compensation — Equity Incentive Plans.”

Rights to Exchange

In April 2020, we entered into subscription agreements with investors Casdin Capital, LLC and Sofinnova Crossover I SLP, which provides Casdin and Sofinnova with certain rights. Under these agreements, in the event of a U.S. listing, we must take all necessary steps, including without limitation any additional filings with the SEC necessary, to allow each of our holders of common stock who elects to do so, to exchange their common stock listed on AIM for securities listed on such U.S. exchange, and we shall advise and instruct Casdin and/or Sofinnova how to convert their common stock traded on AIM and take delivery of the underlying U.S. exchange traded common stock.

Anti-Takeover Provisions

Certificate of Incorporation and Bylaws to be in Effect Following this Offering

Our fifteenth amended and restated certificate of incorporation and amended and restated bylaws, each which are currently in effect or will be in effect following this offering, will:

- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that our board of directors will be classified into three classes of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent in lieu thereof;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder’s notice;
- provide that special meetings of our stockholders may be called at any time, for any purpose or purposes, only by the chairperson of our board of directors, our chief executive officer or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors;
- provide that our directors may be removed (i) with or without cause, upon the vote of at least 50% of the outstanding shares of voting stock or (ii) with cause, by the affirmative vote or consent of at least two-thirds of the other members of our board of directors; and

- not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The amendment of any of these provisions would require approval by the holders of at least 75% of the outstanding shares of capital stock entitled to vote on such amendment or repeal, voting together as a single class.

The combination of these provisions will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Section 203 of the Delaware General Corporation Law

Following this offering, we will be subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, subject to certain exceptions.

Choice of Forum

Our fifteenth amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware (or, if and only if the Court of Chancery of the State of Delaware lacks subject matter jurisdiction, any state court located within the State of Delaware or, if and only if all such state courts lack subject matter jurisdiction, the federal district court for the District of Delaware) is the exclusive forum for the following types of actions or proceedings under Delaware statutory or common law: any derivative action or proceeding brought on our behalf; any action asserting a breach of a fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our fifteenth amended and restated certificate of incorporation, or our amended and restated bylaws; or any action asserting a claim against us that is governed by the internal affairs doctrine. The provisions would not apply to suits brought to enforce a duty or liability created by the Securities Act or the Exchange Act of 1934, as amended.

In addition, our fifteenth amended and restated certificate of incorporation provides that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, subject to and contingent upon a final adjudication in the State of Delaware of the enforceability of such exclusive forum provision. Stockholders cannot waive compliance with U.S. federal securities laws and the rules and regulations thereunder.

Limitations of Liability and Indemnification

See the section titled “Executive Compensation — Limitations on Liability and Indemnification Matters.”

Exchange Listing

Our common stock is currently traded on AIM, a market operated by the London Stock Exchange, under the trading symbols “MXCT” and “MXCN”. Our common stock has been approved for listing on the Nasdaq Global Select Market under the symbol “MXCT.”

Transfer Agent and Registrar

On the completion of this offering, the transfer agent for our common stock will be Computershare Trust Company, N.A. The transfer agent's address is 150 Royall Street, Canton, Massachusetts 02021. Our UK registrar is Link Asset Services Limited.

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock in the United States. Future sales of substantial amounts of our common stock, including shares issued on the exercise of outstanding options, in the public market after this offering, or the possibility of these sales or issuances occurring, could adversely affect the prevailing market price for our common stock or impair our ability to raise equity capital.

Based on our shares outstanding as of March 31, 2021, on the completion of this offering and assuming no exercise of the underwriters' option to purchase additional shares, a total of 98,189,559 shares of common stock will be outstanding. Of these shares, all of the common stock sold in this offering by us, plus any shares sold by exercise of the underwriters' option to purchase additional common stock from us, will be freely tradable in the public market without restriction or further registration under the Securities Act, unless these shares are held by "affiliates," as that term is defined in Rule 144 under the Securities Act, or Rule 144.

The remaining shares of common stock will be, and shares of common stock subject to stock options will be on issuance, "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or Rule 701 under the Securities Act, or Rule 701, which are summarized below. Restricted securities may also be sold outside of the United States to non-U.S. persons in accordance with Rule 904 of Regulation S under the Securities Act.

Subject to the lock-up agreements described below and the provisions of Rule 144, Rule 701 or Regulation S under the Securities Act (including any applicable distribution compliance period for shares sold pursuant to Regulation S under the Securities Act), as well as our insider trading policy, these restricted securities will be available for sale in the public market after the date of this prospectus.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements of Section 13 or 15(d) of the Exchange Act for at least 90 days, an eligible stockholder is entitled to sell such shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. To be an eligible stockholder under Rule 144, such stockholder must not be deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and must have beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then such person is entitled to sell such shares without complying with any of the requirements of Rule 144, subject to the expiration of the lock-up agreements described below.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell shares on expiration of the lock-up agreements described below, subject, in the case of restricted securities, to such shares having been beneficially owned for at least six months. Beginning 90 days after the date of this prospectus, within any three-month period, such stockholders may sell a number of shares that does not exceed the greater of:

- 1% of the common stock then outstanding, which will equal approximately 982,000 shares immediately after this offering, assuming no exercise of the underwriters' option to purchase additional shares of common stock from us; or
- the average weekly trading volume of our common stock on the Nasdaq Global Select Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

Rule 701 generally allows a stockholder who was issued shares under a written compensatory plan or contract and who is not deemed to have been an affiliate of our company during the immediately preceding 90 days, to sell these shares in reliance on Rule 144, but without being required to comply with the public information, holding period, volume limitation or notice provisions of Rule 144. Rule 701 also permits affiliates of our company to sell their Rule 701 shares under Rule 144 without complying with the holding period requirements of Rule 144. All holders of Rule 701 shares, however, are required by that rule to wait until 90 days after the date of this prospectus before selling those shares under Rule 701, subject to the expiration of the lock-up agreements described below.

Form S-8 Registration Statements

We intend to file one or more registration statements on Form S-8 under the Securities Act with the SEC to register the offer and sale of shares of our common stock to be issued under our LTIP and, if and when approved by stockholders, the 2021 Plan and ESPP. These registration statements will become effective immediately on filing. Shares covered by these registration statements will then be eligible for sale in the public markets, subject to vesting restrictions, any applicable lock-up agreements described below, and Rule 144 limitations applicable to affiliates.

Lock-Up Arrangements

We and all of our directors and executive officers, representing the holders of approximately 1.5 million shares of our common stock, have agreed with the underwriters that, until 90 days after the date of this prospectus, we and they will not, without the prior written consent of Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated and William Blair & Company, L.L.C., offer, sell, assign, transfer, pledge, contract to sell, lend or otherwise dispose of any shares of common stock, or securities convertible into or exercisable or exchangeable for common stock. These agreements are described in the section titled “Underwriting.” Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated and William Blair & Company, L.L.C. may, in their sole discretion, release any of the securities subject to these lock-up agreements at any time.

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES TO NON-U.S. HOLDERS

The following summary describes the material U.S. federal income tax consequences of the ownership and disposition of our common stock acquired in this offering by Non-U.S. Holders (as defined below). This discussion is not a complete analysis of all potential U.S. federal income tax consequences relating thereto, does not address non-U.S., state and local tax consequences that may be relevant to Non-U.S. Holders in light of their particular circumstances, and does not address U.S. federal tax consequences other than income taxes. For example, it does not address estate and gift taxes, the alternative minimum tax, the Medicare contribution tax on net investment income, or the application of special tax accounting rules under Section 451(b). Special rules different from those described below may apply to certain Non-U.S. Holders that are subject to special treatment under the Code, such as banks, regulated investment companies real estate investment trusts, financial institutions, insurance companies, tax-exempt organizations, tax-qualified retirement plans, governmental organizations, broker-dealers and traders in securities or currencies, certain former citizens or long-term residents of the United States, "controlled foreign corporations," "passive foreign investment companies," corporations that accumulate earnings to avoid U.S. federal income tax, corporations organized outside of the United States, any state thereof, or the District of Columbia that are nonetheless treated as U.S. taxpayers for U.S. federal income tax purposes, persons that hold our common stock as part of a "straddle," "hedge," "conversion transaction," "synthetic security," or integrated investment or other risk reduction strategy, persons deemed to sell our common stock under the constructive sale provisions of the Code, persons who acquire our common stock through the exercise of an option or otherwise as compensation, "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds, and partnerships and other pass-through entities or arrangements and investors in such pass-through entities or arrangements. Such Non-U.S. Holders are urged to consult their own tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them. If a partnership (including any entity or arrangement classified as a partnership or flow-through entity for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner in such partnership generally will depend on the status of the partner and the activities of the partnership. Partnerships holding our common stock and partners in such partnerships should consult their own tax advisors regarding the tax consequences of the ownership and disposition of our common stock. Furthermore, the discussion below is based upon the provisions of the Code and U.S. Treasury Regulations, rulings and judicial decisions thereunder, each as of the date hereof, and such authorities may be repealed, revoked, or modified, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the U.S. Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions. This discussion assumes that the Non-U.S. Holder holds our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment).

This discussion is for informational purposes only and is not tax advice. Persons considering the purchase of our common stock pursuant to this offering should consult their own tax advisors concerning the U.S. federal income, gift, estate and other tax consequences of acquiring, owning and disposing of our common stock in light of their particular situations as well as any consequences arising under the laws of any other taxing jurisdiction, including any state, local or non-U.S. tax consequences, or under any applicable income tax treaty.

For the purposes of this discussion, a "Non-U.S. Holder" is a beneficial owner of common stock that is neither a U.S. Holder nor a partnership (or other entity treated as a partnership for U.S. federal income tax purposes regardless of its place of organization or formation). A "U.S. Holder" means a beneficial owner of our common stock that is for U.S. federal income tax purposes any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation or other entity treated as a corporation for U.S. federal income tax purposes created or organized in or under the laws of the United States, any state thereof, or the District of Columbia;

- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if it (1) is subject to the primary supervision of a court within the United States and one or more United States persons (within the meaning of Section 7701(a)(30) of the Code) have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a United States person.

Distributions

As described in the section titled “Dividend Policy,” we do not anticipate declaring or paying dividends to holders of our common stock in the foreseeable future. However, if we do make distributions of cash or property on our common stock to a Non-U.S. Holder, such distributions, to the extent made out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles), generally will constitute dividends for U.S. tax purposes and will be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty, subject to the discussions below regarding effectively connected income, backup withholding and foreign accounts. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide us or our paying agent with a properly executed IRS Form W-8BEN (in the case of individuals) or IRS Form W-8BEN-E (in the case of entities), or other appropriate form, certifying the Non-U.S. Holder’s entitlement to benefits under that treaty. We do not intend to adjust our withholding unless such certificates are provided to us or our paying agent before the payment of dividends and are updated as may be required by the IRS. In the case of a Non-U.S. Holder that is an entity, U.S. Treasury Regulations and the relevant tax treaty provide rules to determine whether, for purposes of determining the applicability of a tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a Non-U.S. Holder holds stock through a financial institution or other agent acting on the holder’s behalf, the holder will be required to provide appropriate documentation to such agent. The holder’s agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. If you are eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty and you do not timely provide the required certification, you may be able to obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS.

We generally are not required to withhold tax on dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base that such holder maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to us or our paying agent (or, if stock is held through a financial institution or other agent, to such agent). In general, such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular rates applicable to U.S. persons. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional “branch profits tax,” which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate Non-U.S. Holder’s effectively connected earnings and profits, subject to certain adjustments. Non-U.S. Holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

To the extent distributions on our common stock, if any, exceed our current and accumulated earnings and profits, they will first reduce the Non-U.S. Holder’s adjusted basis in our common stock, but not below zero, and then will be treated as gain to the extent of any excess amount distributed, and taxed in the same manner as gain realized from a sale or other disposition of common stock as described in the next section.

Gain on Disposition of Our Common Stock

Subject to the discussions below regarding backup withholding and foreign accounts, a Non-U.S. Holder generally will not be subject to U.S. federal income tax with respect to gain realized on a sale or other disposition of our common stock unless (a) the gain is effectively connected with a trade or

business of such holder in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base that such holder maintains in the United States), (b) the Non-U.S. Holder is a nonresident alien individual and is present in the United States for 183 or more days in the taxable year of the disposition and certain other conditions are met, or (c) we are or have been a "United States real property holding corporation" within the meaning of Code Section 897(c)(2) at any time within the shorter of the five-year period preceding such disposition or such holder's holding period in our common stock. In general, we would be a United States real property holding corporation if the fair market value of our U.S. real property interests equals or exceeds 50% of the sum of the fair market value of our worldwide real property interests plus our other assets used or held for use in a trade or business. We believe that we have not been and we are not, and do not anticipate becoming, a United States real property holding corporation. Even if we are treated as a United States real property holding corporation, gain realized by a Non-U.S. Holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the Non-U.S. Holder owned, directly, indirectly and constructively, no more than 5% of our common stock at all times within the shorter of (i) the five-year period preceding the disposition or (ii) the holder's holding period in our common stock and (2) our common stock is "regularly traded," as defined by applicable U.S. Treasury Regulations, on an established securities market. There can be no assurance that our common stock will qualify or continue to qualify as regularly traded on an established securities market. If any gain on your disposition is taxable because we are a United States real property holding corporation and your ownership of our common stock exceeds 5%, you will be taxed on such disposition generally in the manner as gain that is effectively connected with the conduct of a U.S. trade or business (subject to the provisions under an applicable income tax treaty), except that the branch profits tax generally will not apply.

If you are a Non-U.S. Holder described in (a) above, you will be required to pay tax on a net income basis at the U.S. federal income tax rates applicable to U.S. Holders, and corporate Non-U.S. Holders described in (a) above may be subject to the additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. If you are a Non-U.S. Holder described in (b) above, you will be subject to U.S. federal income tax at a flat 30% rate (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition, which gain may be offset by certain U.S.-source capital losses (even though you are not considered a resident of the United States), provided that the you have timely filed U.S. federal income tax returns with respect to such losses. Non-U.S. Holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Information Reporting Requirements and Backup Withholding

Generally, we must report annually to the IRS and to each Non-U.S. Holder the amount of distributions paid, the name and address of the recipient, and the amount, if any, of tax withheld. These information reporting requirements apply even if withholding was not required because the dividends were effectively connected with the Non-U.S. Holder's conduct of a trade or business within the United States or withholding was reduced by an applicable income tax treaty. Under applicable income tax treaties or other agreements, the IRS may make its reports available to the tax authorities in the Non-U.S. Holder's country of residence or country in which the Non-U.S. Holder was established.

Dividends paid to a Non-U.S. Holder that is not an exempt recipient generally will be subject to backup withholding, currently at a rate of 24%, unless the Non-U.S. Holder certifies to the payor as to its foreign status, which certification may generally be made on an applicable IRS Form W-8.

Proceeds from the sale or other disposition of common stock by a Non-U.S. Holder effected by or through a U.S. office of a broker generally will be subject to information reporting and backup withholding, currently at a rate of 24%, unless the Non-U.S. Holder certifies to the withholding agent under penalties of perjury as to, among other things, its name, address and status as a Non-U.S. Holder or otherwise establishes an exemption. Payment of disposition proceeds effected outside the United States by or through a non-U.S. office of a non-U.S. broker generally will not be subject to information reporting or backup withholding if the payment is not received in the United States. Information reporting, but generally not backup withholding, will apply to such a payment if the broker has certain connections

with the United States unless the broker has documentary evidence in its records that the beneficial owner thereof is a Non-U.S. Holder and specified conditions are met or an exemption is otherwise established.

Backup withholding is not an additional tax. Any amount withheld under the backup withholding rules from a payment to a Non-U.S. Holder that results in an overpayment of taxes generally will be refunded, or credited against the holder's U.S. federal income tax liability, if any, provided that the required information is timely furnished to the IRS

Foreign Accounts

Sections 1471 through 1474 of the Code (commonly referred to as FATCA) impose a U.S. federal withholding tax of 30% on certain payments paid to a foreign financial institution (as specifically defined by applicable rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise establishes an exemption. FATCA also generally imposes a federal withholding tax of 30% on certain payments to a non-financial foreign entity unless such entity provides the withholding agent with either a certification that it does not have any substantial direct or indirect U.S. owners or provides information regarding substantial direct and indirect U.S. owners of the entity. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. The withholding tax described above will not apply if the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from the rules.

FATCA withholding currently applies to payments of dividends. The U.S. Treasury Department has released proposed regulations which, if finalized in their present form, would eliminate the federal withholding tax of 30% applicable to the gross proceeds of a disposition of our common stock. In its preamble to such proposed regulations, the U.S. Treasury Department stated that taxpayers may generally rely on the proposed regulations until final regulations are issued. Non-U.S. Holders are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING, AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY RECENT OR PROPOSED CHANGE IN APPLICABLE LAW.

UNDERWRITING

We and the underwriters for the offering named below have entered into an underwriting agreement with respect to the common stock being offered. Subject to the terms and conditions of the underwriting agreement, each underwriter has severally agreed to purchase from us the number of shares of our common stock set forth opposite its name below. Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated, and William Blair & Company, L.L.C. are the representatives of the underwriters.

Underwriter	Number of Shares
Cowen and Company, LLC	4,995,000
Stifel, Nicolaus & Company, Incorporated.	3,915,000
William Blair & Company, L.L.C	2,835,000
BTIG, LLC	1,080,000
Stephens Inc.	675,000
Total	13,500,000

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent and that the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of these shares are purchased, other than those shares covered by the option to purchase additional shares described below. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against specified liabilities, including liabilities under the Securities Act of 1933, and to contribute to payments the underwriters may be required to make in respect thereof.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel and other conditions specified in the underwriting agreement. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares. We have granted to the underwriters an option to purchase up to 2,025,000 additional shares of common stock at the public offering price, less the underwriting discounts and commissions. This option is exercisable for a period of 30 days. To the extent that the underwriters exercise this option, the underwriters will purchase additional shares from us in approximately the same proportion as shown in the table above.

Discounts and Commissions. The following table shows the public offering price, underwriting discounts and commissions and proceeds, before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

We estimate that the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $3.0 million and are payable by us. We have agreed to reimburse the underwriters for up to $30,000 for their Financial Industry Regulatory Authority, or FINRA counsel fee. In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering.

		Total	
	Per Share	Without Option	With Option
Public offering price	$13.00	$175,500,000	$201,825,000
Underwriting discounts and commissions	$ 0.91	$ 12,285,000	$ 14,127,750
Proceeds, before expenses, to the Company	$12.09	$163,215,000	$187,697,250

The underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus. The underwriters may offer the shares of common stock

to securities dealers at the public offering price less a concession not in excess of $0.546 per share. If all of the shares are not sold at the public offering price, the underwriters may change the offering price and other selling terms.

Discretionary Accounts. The underwriters do not intend to confirm sales of the shares to any accounts over which they have discretionary authority.

Market Information. Our shares of common stock are admitted to trading on AIM, a market operated by the London Stock Exchange, under the symbols “MXCT” and “MXCN.” However, prior to this offering, there has been no public market for our shares or any of our other securities on any U.S. national securities exchange. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In addition to prevailing market conditions, the factors to be considered in these negotiations will include:

- the history of, and prospects for, our company and the industry in which we compete;
- our past and present financial information;
- the trading price of our common stock on AIM;
- an assessment of our management; its past and present operations, and the prospects for, and timing of, our future revenues;
- the present state of our development; and
- the above factors in relation to market values and various valuation measures of other companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

Our common stock has been approved for listing on the Nasdaq Global Select Market under the symbol “MXCT.”

Stabilization. In connection with this offering, the underwriters may engage in stabilizing transactions, overallotment transactions, syndicate covering transactions, penalty bids and purchases to cover positions created by short sales.

- Stabilizing transactions permit bids to purchase shares of common stock so long as the stabilizing bids do not exceed a specified maximum, and are engaged in for the purpose of preventing or retarding a decline in the market price of the common stock while the offering is in progress.
- Overallotment transactions involve sales by the underwriters of shares of common stock in excess of the number of shares the underwriters are obligated to purchase. This creates a syndicate short position which may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriters is not greater than the number of shares that they may purchase in the option to purchase additional shares. In a naked short position, the number of shares involved is greater than the number of shares in the option to purchase additional shares. The underwriters may close out any short position by exercising their option to purchase additional shares and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared with the price at which they may purchase shares through exercise of the option to purchase additional shares. If the underwriters sell more shares than could be covered by exercise of the option to purchase additional shares and, therefore, have a naked short position, the position can be closed out only by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that after pricing there could be downward pressure on the price of the shares in the open market that could adversely affect investors who purchase in the offering.

- Penalty bids permit the representatives to reclaim a selling concession from a syndicate member when the common stock originally sold by that syndicate member is purchased in stabilizing or syndicate covering transactions to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock in the open market may be higher than it would otherwise be in the absence of these transactions. Neither we nor the underwriters make any representation or prediction as to the effect that the transactions described above may have on the price of our common stock. These transactions may be effected on the Nasdaq Stock Market, in the over-the-counter market or otherwise and, if commenced, may be discontinued at any time.

Stabilization transactions will also need to comply with U.K. and European laws, in particular the Market Abuse Regulation (Regulation (EU) 596/2014).

Passive Market Making. In connection with this offering, underwriters and selling group members may engage in passive market making transactions in our common stock on the Nasdaq Stock Market in accordance with Rule 103 of Regulation M under the Securities Exchange Act of 1934, as amended, during a period before the commencement of offers or sales of common stock and extending through the completion of the distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, such bid must then be lowered when specified purchase limits are exceeded.

Lock-Up Agreements. Pursuant to certain "lock-up" agreements, we and our executive officers, directors and certain other stockholders, have agreed, subject to certain exceptions, not to and will not cause or direct any of its affiliates to offer, sell, assign, transfer, pledge, contract to sell, or otherwise dispose of or announce the intention to otherwise dispose of, or enter into, or announce the intention to enter into any swap, hedge or similar agreement or arrangement (including, without limitation, the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) that transfers, is designed to transfer or reasonably could be expected to transfer (whether by the stockholder or someone other than the stockholder) that transfers, in whole or in part, directly or indirectly the economic consequence of ownership of, directly or indirectly, or make any demand or request or exercise any right with respect to the registration of, or file with the SEC a registration statement under the Securities Act relating to, any common stock or securities convertible into or exchangeable or exercisable for any common stock without the prior written consent of Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated, and William Blair & Company, L.L.C., for a period of 90 days after the date of the pricing of the offering.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. It also applies to common stock owned now or, in some instances, acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. The exceptions permit us, among other things and subject to restrictions, to: (i) issue common stock or options pursuant to employee benefit plans, (ii) issue common stock upon exercise of outstanding options or warrants, (iii) issue securities in connection with acquisitions or similar transactions, and (iv) file registration statements on Form S-8. The exceptions permit parties to the "lock-up" agreements, among other things and subject to restrictions, to: (a) make certain gifts or transfers by will or intestate succession upon the death of the party, (b) if the party is a corporation, partnership, limited liability company or other business entity, make transfers to any shareholders, partners, members of, or owners of similar equity interests in, the party, or to an affiliate of the party, if such transfer is not for value, and (c) if the party is a corporation, partnership, limited liability company or other business entity, make transfers in connection with the sale or transfer of all of the party's capital stock, partnership interests, membership interests or other similar equity interests, as the case may be, or all or substantially all of the party's assets, in any such case not undertaken for the purpose of avoiding the restrictions imposed by the "lock-up" agreement. In addition, the lock-up provision will not restrict broker-dealers from engaging in market making and similar activities conducted in the ordinary course of their business.

Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated, and William Blair & Company, L.L.C., in their sole discretion, may release our common stock and other securities subject to the lock-up agreements described above in whole or in part at any time. When determining whether or not to release our common stock and other securities from lock-up agreements, Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated, and William Blair & Company, L.L.C. will consider, among other factors, the holder's reasons for requesting the release, the number of shares for which the release is being requested and market conditions at the time of the request. In the event of such a release or waiver for one of our directors or officers, Cowen and Company, LLC, Stifel, Nicolaus & Company, Incorporated, and William Blair & Company, L.L.C. shall provide us with notice of the impending release or waiver at least three business days before the effective date of such release or waiver and we will announce the impending release or waiver by issuing a press release at least two business days before the effective date of the release or waiver.

We have not authorized and do not authorize the making of any offer of securities through any financial intermediary on our behalf, other than offers made by the underwriters and their respective affiliates, with a view to the final placement of the securities as contemplated in this document. Accordingly, no purchaser of the shares, other than the underwriters, is authorized to make any further offer of shares on our behalf or on behalf of the underwriters.

Electronic Offer, Sale and Distribution of Shares. A prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters or selling group members, if any, participating in this offering and one or more of the underwriters participating in this offering may distribute prospectuses electronically. The representatives may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriters and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or any underwriter in its capacity as underwriter, and should not be relied upon by investors.

Other Relationships. Certain of the underwriters and their affiliates have provided, and may in the future provide, various investment banking, commercial banking and other financial services for us and our affiliates for which they have received, and may in the future receive, customary fees.

Selling Restrictions

Canada. The common stock may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the common stock must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Switzerland. The securities will not be offered, directly or indirectly, to the public in Switzerland and this prospectus does not constitute a public offering prospectus as that term is understood pursuant to article 652a or 1156 of the Swiss Federal Code of Obligations.

European Economic Area. In relation to each Member State of the European Economic Area (each, a "Relevant State"), no shares have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that shares may be offered to the public in that Relevant State at any time:

A. to any legal entity which is a qualified investor as defined under Article 2 the Prospectus Regulation;

B. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

C. in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require the Issuer or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and the Issuer that it is a "qualified investor" within the meaning of Article 2(e) of the Prospectus Regulation.

In the case of any shares being offered to a financial intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters has been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an "offer to the public" in relation to shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

United Kingdom. No shares have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

A. to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

B. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

C. in any other circumstances falling within Section 86 of the Financial Services and Markets Authority, or FSMA,

provided that no such offer of the shares shall require the Issuer or any Manager to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an "offer to the public" in relation to the shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor

to decide to purchase or subscribe for any shares and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the U.K. Prospectus Regulation) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or the “Order,” and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”). In the United Kingdom, any investment or investment activity to which this document relates is only available to, and will be engaged in with, relevant persons. Any person in the United Kingdom who is not a relevant person must not act on or rely upon this document or any of its contents.

Hong Kong. The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (the “SFO”) of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong) (the “CO”), or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made thereunder.

Singapore. Each underwriter has acknowledged that this prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any shares or caused the shares to be made the subject of an invitation for subscription or purchase and will not offer or sell any shares or cause the shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, whether directly or indirectly, to any person in Singapore other than:

A. to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to Section 274 of the SFA;

B. to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA; or

C. otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

A. a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or

B. a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries’ rights and interest (however described) in that trust shall not be

transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

(i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;

(ii) where no consideration is or will be given for the transfer;

(iii) where the transfer is by operation of law;

(iv) as specified in Section 276(7) of the SFA; or

(v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Singapore SFA Product Classification — In connection with Section 309B of the SFA and the CMP Regulations 2018, unless otherwise specified before an offer of shares, we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that the shares are "prescribed capital markets products" (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Israel. In the State of Israel this prospectus shall not be regarded as an offer to the public to purchase shares of common stock under the Israeli Securities Law, 5728 — 1968, which requires a prospectus to be published and authorized by the Israel Securities Authority, if it complies with certain provisions of Section 15 of the Israeli Securities Law, 5728-1968, including, inter alia, if: (i) the offer is made, distributed or directed to not more than 35 investors, subject to certain conditions (the "Addressed Investors"); or (ii) the offer is made, distributed or directed to certain qualified investors defined in the First Addendum of the Israeli Securities Law, 5728 — 1968, subject to certain conditions (the "Qualified Investors"). The Qualified Investors shall not be taken into account in the count of the Addressed Investors and may be offered to purchase securities in addition to the 35 Addressed Investors. The company has not and will not take any action that would require it to publish a prospectus in accordance with and subject to the Israeli Securities Law, 5728 — 1968. We have not and will not distribute this prospectus or make, distribute or direct an offer to subscribe for our common stock to any person within the State of Israel, other than to Qualified Investors and up to 35 Addressed Investors.

Qualified Investors may have to submit written evidence that they meet the definitions set out in of the First Addendum to the Israeli Securities Law, 5728 — 1968. In particular, we may request, as a condition to be offered common stock, that Qualified Investors will each represent, warrant and certify to us and/or to anyone acting on our behalf: (i) that it is an investor falling within one of the categories listed in the First Addendum to the Israeli Securities Law, 5728 — 1968; (ii) which of the categories listed in the First Addendum to the Israeli Securities Law, 5728 — 1968 regarding Qualified Investors is applicable to it; (iii) that it will abide by all provisions set forth in the Israeli Securities Law, 5728 — 1968 and the regulations promulgated thereunder in connection with the offer to be issued common stock; (iv) that the shares of common stock that it will be issued are, subject to exemptions available under the Israeli Securities Law, 5728 — 1968: (a) for its own account; (b) for investment purposes only; and (c) not issued with a view to resale within the State of Israel, other than in accordance with the provisions of the Israeli Securities Law, 5728 — 1968; and (v) that it is willing to provide further evidence of its Qualified Investor status. Addressed Investors may have to submit written evidence in respect of their identity and may have to sign and submit a declaration containing, inter alia, the Addressed Investor's name, address and passport number or Israeli identification number.

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus will be passed upon for us by Cooley LLP, Reston, Virginia. Certain legal matters in connection with this offering will be passed upon for the underwriters by DLA Piper LLP (US), New York, New York.

EXPERTS

The consolidated financial statements of MaxCyte, Inc. as of and for the years ended December 31, 2019 and 2020 are included herein and in the registration statement in reliance upon the report of CohnReznick LLP, independent registered public accounting firm included herein and in the registration statement, and upon the authority of said firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all the information set forth in the registration statement, some of which is contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. For further information with respect to us and our common stock, we refer you to the registration statement, including the exhibits filed as a part of the registration statement. Statements contained in this prospectus concerning the contents of any contract or any other document are not necessarily complete. If a contract or document has been filed as an exhibit to the registration statement, please see the copy of the contract or document that has been filed. Each statement in this prospectus relating to a contract or document filed as an exhibit is qualified in all respects by the filed exhibit. The SEC maintains an internet website that contains reports and other information about issuers, like us, that file electronically with the SEC. The address of that website is www.sec.gov.

On the completion of this offering, we will be subject to the information reporting requirements of the Exchange Act, and we will file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available at www.sec.gov.

We also maintain a website at www.maxcyte.com. Information contained in, or accessible through, our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is only as an inactive textual reference.

MAXCYTE, INC. AND SUBSIDIARY

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders
MaxCyte, Inc.

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of MaxCyte, Inc. and Subsidiary (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of operations, changes in stockholders' equity, and cash flows for the years then ended and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

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

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

/s/ CohnReznick LLP

We have served as the Company's auditor since 2018.

Tysons, Virginia
April 20, 2021

MaxCyte, Inc.

Consolidated Balance Sheets

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 18,755,200	$ 15,210,800
Short-term investments, at amortized cost	16,007,500	1,497,800
Accounts receivable, net	5,171,900	3,244,500
Inventory	4,315,800	3,701,800
Other current assets	1,003,000	797,100
Total current assets	**45,253,400**	**24,452,000**
Property and equipment, net	4,546,200	3,280,100
Right of use asset – operating leases	1,728,300	2,253,300
Right of use asset – finance leases	218,300	—
Other assets	33,900	—
Total assets	**$ 51,780,100**	**$ 29,985,400**
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 890,200	$ 2,089,400
Accrued expenses and other	5,308,500	3,551,600
Operating lease liability, current	572,600	508,900
Deferred revenue	4,843,000	3,193,200
Total current liabilities	**11,614,300**	**9,343,100**
Note payable, net of discount and deferred fees	4,917,000	4,895,300
Operating lease liability, net of current portion	1,234,600	1,807,100
Other liabilities	788,800	338,100
Total liabilities	**18,554,700**	**16,383,600**
Commitments and contingencies (Note 9)		
Stockholders' equity		
Common stock, $0.01 par; 200,000,000 shares authorized, 77,382,473 and 57,403,583 shares issued and outstanding at December 31, 2020 and 2019, respectively	773,800	574,000
Additional paid-in capital	127,673,900	96,433,700
Accumulated deficit	(95,222,300)	(83,405,900)
Total stockholders' equity	**33,225,400**	**13,601,800**
Liabilities and stockholders' equity	**$ 51,780,100**	**$ 29,985,400**

See accompanying notes to the consolidated financial statements.

MaxCyte, Inc.

Consolidated Statements of Operations
For the Years Ended December 31, 2020 and 2019

	2020	2019
Revenue	**$ 26,168,900**	**$ 21,620,700**
Costs of goods sold	2,767,000	2,499,200
Gross profit	**23,401,900**	**19,121,500**
Operating expenses:		
Research and development	17,744,300	17,601,200
Sales and marketing	8,328,700	7,852,100
General and administrative	8,385,600	6,088,200
Total operating expenses	**34,458,600**	**31,541,500**
Operating loss	**(11,056,700)**	**(12,420,000)**
Other income (expense):		
Interest and other expense	(825,600)	(681,100)
Interest and other income	65,900	206,100
Total other income (expense)	**(759,700)**	**(475,000)**
Net loss	**$(11,816,400)**	**$(12,895,000)**
Basic and diluted net loss per common share	**$ (0.17)**	**$ (0.23)**
Weighted average common shares outstanding, basic and diluted	**69,464,751**	**56,397,524**

See accompanying notes to the consolidated financial statements.

MaxCyte, Inc.

Consolidated Statements of Changes in Stockholders' Equity
For the Years Ended December 31, 2020 and 2019

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance January 1, 2019	**51,332,764**	**$513,300**	**$82,279,300**	**$(70,510,900)**	**$ 12,281,700**
Issuance of stock in public offering	5,908,319	59,100	12,271,200	—	12,330,300
Stock-based compensation expense	—	—	1,752,100	—	1,752,100
Exercise of stock options	162,500	1,600	131,100	—	132,700
Net loss	—	—	—	(12,895,000)	(12,895,000)
Balance December 31, 2019	**57,403,583**	**$574,000**	**$96,433,700**	**$(83,405,900)**	**$ 13,601,800**

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance January 1, 2020	**57,403,583**	**$574,000**	**$ 96,433,700**	**$(83,405,900)**	**$ 13,601,800**
Issuance of stock in public offering	19,181,423	191,800	28,375,400	—	28,567,200
Stock-based compensation expense	—	—	2,471,800	—	2,471,800
Exercise of stock options	797,467	8,000	393,000	—	401,000
Net loss	—	—	—	(11,816,400)	(11,816,400)
Balance December 31, 2020	**77,382,473**	**$773,800**	**$127,673,900**	**$(95,222,300)**	**$ 33,225,400**

See accompanying notes to the consolidated financial statements.

MaxCyte, Inc.

Consolidated Statements of Cash Flows
For the Years Ended December 31, 2020 and 2019

	2020	2019
Cash flows from operating activities:		
Net loss	$(11,816,400)	$(12,895,000)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization on property and equipment, net	1,047,700	613,500
Net book value of consigned equipment sold	79,900	25,000
Loss on disposal of fixed assets	25,900	1,700
Fair value adjustment of liability classified warrant	366,500	14,000
Stock-based compensation	2,471,800	1,752,100
Bad debt (recovery) expense	(117,200)	54,200
Amortization of discounts on short-term investments	(3,800)	(32,600)
Noncash interest expense	21,700	51,900
Changes in operating assets and liabilities:		
Accounts receivable	(1,810,200)	1,592,000
Inventory	(890,600)	(1,890,200)
Other current assets	(205,900)	66,600
Right of use asset – operating leases	525,000	474,600
Right of use asset – finance lease	83,400	—
Other assets	(33,900)	—
Accounts payable, accrued expenses and other	391,000	1,160,200
Operating lease liability	(508,800)	68,600
Deferred revenue	1,649,800	795,900
Other liabilities	(58,000)	(655,000)
Net cash used in operating activities	(8,782,100)	(8,802,500)
Cash flows from investing activities:		
Purchases of short-term investments	(22,505,900)	(7,424,100)
Maturities of short-term investments	8,000,000	9,149,900
Purchases of property and equipment	(2,072,100)	(1,271,300)
Net cash (used in) provided by investing activities	(16,578,000)	454,500
Cash flows from financing activities:		
Net proceeds from sale of common stock	28,567,200	12,330,300
Borrowings under notes payable	1,440,000	4,953,300
Principal payments on notes payable	(1,440,000)	(5,105,500)
Proceed from exercise of stock options	401,000	132,700
Principal payments on finance leases	(63,700)	—
Net cash provided by financing activities	28,904,500	12,310,800
Net increase in cash and cash equivalents	3,544,400	3,962,800
Cash and cash equivalents, beginning of year	15,210,800	11,248,000
Cash and cash equivalents, end of year	$ 18,755,200	$ 15,210,800
Supplemental cash flow information:		
Cash paid for interest	$ 421,400	$ 669,600
Supplemental noncash information:		
Property and equipment purchases included in accounts payable	$ 70,900	$ 399,900
Issuance of warrant in conjunction with debt transaction	—	$ 60,700

See accompanying notes to the consolidated financial statements.

1. Organization and Description of Business

MaxCyte, Inc. (the “Company” or “MaxCyte”) was incorporated as a majority owned subsidiary of EntreMed, Inc. (“EntreMed”) on July 31, 1998, under the laws and provisions of the state of Delaware and commenced operations on July 1, 1999. In November 2002, MaxCyte was recapitalized and EntreMed was no longer deemed to control the Company.

MaxCyte is a global life sciences company focused on advancing the discovery, development and commercialization of next-generation cell therapies. MaxCyte leverages its proprietary cell engineering technology platform to enable the programs of its biotechnology and pharmaceutical company customers who are engaged in cell therapy, including gene editing and immuno-oncology, as well as in drug discovery and development and biomanufacturing. The Company licenses and sells its instruments and technology and sells its consumables to developers of cell therapies and to pharmaceutical and biotechnology companies for use in drug discovery and development and biomanufacturing. In early 2020, the Company established a wholly owned subsidiary, CARMA Cell Therapies, Inc. (“CCTI”), as part of its development of CARMA, MaxCyte’s proprietary, mRNA-based, clinical-stage, immuno-oncology cell therapy.

The COVID-19 pandemic has disrupted economic markets and the economic impact, duration and spread of related effects is uncertain at this time and difficult to predict. As a result, it is not possible to ascertain the overall future impact of COVID-19 on the Company’s business and, depending upon the extent and severity of such effects, including, but not limited to potential slowdowns in customer operations, extension of sales cycles, shrinkage in customer capital budgets or delays in customers’ clinical trials, the pandemic could have a material adverse effect on the Company’s business, results of operations, financial condition and cash flows. In 2020, the Company made adjustments to its operating, sales and marketing practices to mitigate the effects of COVID-19 restrictions which reduced planned spending, particularly on travel and marketing expenditures. In addition, COVID-19 restrictions may have delayed or slowed the research activities of some existing and prospective customers. It is not possible to quantify the impact of COVID-19 on the Company’s revenues and expenses in 2020 or its expected impact on future periods.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“US GAAP”).

Use of Estimates

The preparation of financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. In the accompanying consolidated financial statements, estimates are used for, but not limited to, revenue recognition, stock-based compensation, allowance for doubtful accounts, allowance for inventory obsolescence, accruals for contingent liabilities, accruals for clinical trials, deferred taxes and valuation allowance, and the depreciable lives of fixed assets. Actual results could differ from those estimates.

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiary, CCTI. All significant intercompany balances have been eliminated in consolidation.

Concentration

During the year ended December 31, 2020, one customer represented 15% of revenue, in part due to certain one-time milestone events. During the year ended December 31, 2019, one customer represented 10% of revenue.

During the year ended December 31, 2020, the Company purchased approximately 47% of its inventory from a single supplier. During the year ended December 31, 2019, the Company purchased approximately 56% of its inventory from a single supplier. At December 31, 2020, amounts payable to three suppliers totaled 62% of total accounts payable. At December 31, 2019, amounts payable to a single supplier totaled 25% of total accounts payable.

Foreign Currency

The Company's functional currency is the US dollar; transactions denominated in foreign currencies are transacted at the exchange rate in effect at the date of each transaction. Differences in exchange rates during the period between the date a transaction denominated in foreign currency is consummated and the date on which it is either settled or at the reporting date are recognized in the consolidated statements of operations as general and administrative expense. The Company recognized an $81,800 foreign currency transaction gain and a $24,700 foreign currency transaction loss for the years ended December 31, 2020 and 2019, respectively.

Fair Value

Fair value is the price that would be received from the sale of an asset or paid to transfer a liability assuming an orderly transaction in the most advantageous market at the measurement date. US GAAP establishes a hierarchical disclosure framework which prioritizes and ranks the level of observability of inputs used in measuring fair value. These tiers include:

- Level 1 — Quoted prices (unadjusted) in active markets that are accessible at the measurement date for identical assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.
- Level 2 — Observable market-based inputs other than quoted prices in active markets for identical assets or liabilities.
- Level 3 — Unobservable inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

See Note 6 for additional information regarding fair value.

Cash, Cash Equivalents and Short-term Investments

Cash and cash equivalents consist of financial instruments including money market funds and commercial paper with original maturities of less than 90 days. Short-term investments consist of commercial paper with original maturities greater than 90 days and less than one year. All money market funds, and commercial paper are recorded at amortized cost unless they are deemed to be impaired on an other-than-temporary basis, at which time they are recorded at fair value using Level 2 inputs.

The following table summarizes the Company's investments at December 31, 2020:

Description	Classification	Amortized cost	Gross unrecognized holding gains	Gross unrecognized holding losses	Aggregate fair value
Money market funds	Cash equivalents	$ 8,702,200	$ —	$ —	$ 8,702,200
Commercial Paper	Cash equivalents	6,523,500	—	—	6,523,500
Commercial Paper	Short-term investments	13,996,800	1,800	—	13,998,600
Corporate Debt	Short-term investments	2,010,700	—	(100)	2,010,600
Total Investments		$31,233,200	$ 1,800	$ (100)	$31,234,900

The following table summarizes the Company's investments at December 31, 2019:

Description	Classification	Amortized cost	Gross unrecognized holding gains	Gross unrecognized holding losses	Aggregate fair value
Money market funds	Cash equivalents	$10,037,000	$ —	$ —	$10,037,000
Commercial Paper	Cash equivalents	1,399,700	—	—	1,399,700
Commercial Paper	Short-term investments	1,497,800	400	—	1,498,200
Total Investments		$12,934,500	$ 400	$ —	$12,934,900

At times the Company's cash balances may exceed federally insured limits and cash may also be deposited in foreign bank accounts that are not covered by federal deposit insurance. The Company does not believe that this results in any significant credit risk.

Inventory

The Company sells or licenses products to customers. The Company uses the average cost method of accounting for its inventory and adjustments resulting from periodic physical inventory counts are reflected in costs of goods sold in the period of the adjustment. Inventory is carried at the lower of cost or net realizable value. Inventory consisted of the following at:

	December 31, 2020	December 31, 2019
Raw materials inventory	$ 1,771,300	$ 1,318,600
Finished goods inventory	2,544,500	2,383,200
Total Inventory	$ 4,315,800	$ 3,701,800

The Company determined no allowance for obsolescence was necessary at December 31, 2020 or 2019.

Accounts Receivable

Accounts receivable are reduced by an allowance for doubtful accounts, if needed. The allowance for doubtful accounts reflects the best estimate of probable losses determined principally on the basis of historical experience and specific allowances for known troubled accounts. All accounts or portions thereof that are deemed to be uncollectible or to require an excessive collection cost are written off to the allowance for doubtful accounts. The Company determined no allowance was necessary at December 31, 2020. The Company recorded an allowance of $117,200 at December 31, 2019. This amount was subsequently collected and the allowance was reversed in the year ended December 31, 2020.

Property and Equipment

Property and equipment are stated at cost. Depreciation is computed using the straight-line method. Office equipment (principally computers) is depreciated over an estimated useful life of three years. Laboratory equipment is depreciated over an estimated useful life of five years. Furniture is depreciated over a useful life of seven years. Leasehold improvements are amortized over the shorter of the estimated lease term or useful life. Instruments represent equipment held at a customer's site that is typically leased to customers on a short-term basis and is depreciated over an estimated useful life of five years.

Property and equipment include capitalized costs to develop internal-use software. Applicable costs are capitalized during the development stage of the project and include direct internal costs, third-party costs and allocated interest expenses as appropriate.

Property and equipment consist of the following:

	December 31, 2020	December 31, 2019
Furniture and equipment	$ 3,492,900	$ 2,311,800
Instruments	1,424,600	1,223,700
Leasehold improvements	641,400	635,100
Internal-use software under development	—	30,300
Internal-use software	1,963,000	1,277,300
Accumulated depreciation and amortization	(2,975,700)	(2,198,100)
Property and equipment, net	$ 4,546,200	$ 3,280,100

For the years ended December 31, 2020 and 2019, the Company transferred $276,600 and $571,000, respectively, of instruments previously classified as inventory to property and equipment leased to customers.

For the years ended December 31, 2020 and 2019, the Company incurred depreciation and amortization expense of $1,047,700 and $613,500, respectively. Maintenance and repairs are charged to expense as incurred.

In the years ended December 31, 2020 and 2019, the Company capitalized approximately $16,700 and $13,800 of interest expense related to capitalized software development projects.

Management reviews property and equipment for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of the long-lived asset is measured by a comparison of the carrying amount of the asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the estimated fair value of the assets. The Company recognized no impairment in either of the years ended December 31, 2020 or 2019.

Revenue Recognition

The Company analyzes contracts to determine the appropriate revenue recognition using the following steps: (i) identification of contracts with customers, (ii) identification of distinct performance obligations in the contract, (iii) determination of contract transaction price, (iv) allocation of contract transaction price to the performance obligations and (v) determination of revenue recognition based on timing of satisfaction of the performance obligations.

In some arrangements, product and services have been sold together representing distinct performance obligations. In such arrangements the Company allocates the sale price to the various performance obligations in the arrangement on a relative selling price basis. Under this basis, the Company determines the estimated selling price of each performance obligation in a manner that is consistent with that used to determine the price to sell the deliverable on a standalone basis.

The Company recognizes revenue upon the satisfaction of its performance obligation (generally upon transfer of control of promised goods or services to its customers) in an amount that reflects the consideration to which it expects to be entitled in exchange for those goods or services.

The Company defers incremental costs of obtaining a customer contract and amortizes the deferred costs over the period that the goods and services are transferred to the customer. The Company had no material incremental costs to obtain customer contracts in any period presented.

Deferred revenue results from amounts billed in advance to customers or cash received from customers in advance of services being provided.

Research and Development Costs

Research and development costs consist of independent proprietary research and development costs and the costs associated with work performed for fees from third parties. Research and

development costs are expensed as incurred. Research costs performed for fees paid by customers are included in cost of goods sold.

Stock-Based Compensation

The Company grants stock-based awards in exchange for employee, consultant and non-employee director services. The value of the award is recognized as expense on a straight-line basis over the requisite service period.

The Company utilizes the Black-Scholes option pricing model for estimating fair value of its stock options granted. Option valuation models, including the Black-Scholes model, require the input of highly subjective assumptions, and changes in the assumptions used can materially affect the grant-date fair value of an award. These assumptions include the expected volatility, expected dividend yield, risk-free rate of interest and the expected life of the award. A discussion of management's methodology for developing each of the assumptions used in the Black-Scholes model is as follows:

Expected volatility

Volatility is a measure of the amount by which a financial variable such as a share price has fluctuated (historical volatility) or is expected to fluctuate (expected volatility) during a period. The Company does not currently have sufficient history with its own common stock to determine its actual volatility. The Company has been able to identify several public entities of similar size, complexity and stage of development; accordingly, historical volatility has been calculated at between 49% and 55% for the year ended December 31, 2020 and between 48% and 50% for the year ended December 31, 2019 using the volatility of these companies.

Expected dividend yield

The Company has never declared or paid common stock dividends and has no plans to do so in the foreseeable future. Additionally, the Company's long-term debt agreement restricts the payment of cash dividends.

Risk-free interest rate

This approximates the US Treasury rate for the day of each option grant during the year, having a term that closely resembles the expected term of the option. The risk-free interest rate was between 0.4% and 1.7% for the year ended December 31, 2020 and 1.6% and 2.6% for the year ended December 31, 2019.

Expected term

This is the period that the options granted are expected to remain unexercised. Options granted have a maximum term of ten years. The Company estimates the expected term of the options to be approximately six years for options with a standard four-year vesting period, using the simplified method. Over time, management intends to track estimates of the expected term of the option term so that estimates will approximate actual behavior for similar options.

Expected forfeiture rate

The Company records forfeitures as they occur.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that such tax rate changes are enacted. The measurement of a deferred tax asset is reduced, if necessary, by a valuation allowance if it is more-likely-than-not that all or a portion of the deferred tax asset will not be realized.

Management uses a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return, as well as guidance on derecognition, classification, interest and penalties and financial statement reporting disclosures. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. The Company recognizes interest and penalties accrued on any unrecognized tax exposures as a component of income tax expense. The Company has not identified any uncertain income tax positions that could have a material impact to the consolidated financial statements.

The Company is subject to taxation in various jurisdictions in the United States and abroad and remains subject to examination by taxing jurisdictions for 2016 and all subsequent periods. The Company had a Federal Net Operating Loss ("NOL") carry forward of $57.8 million as of December 31, 2020, which was generally available as a deduction against future income for US federal corporate income tax purposes, subject to applicable carryforward limitations. As a result of the March 2016 public offering of common stock and listing on the AIM market of the London Stock Exchange, the Company's NOLs are limited on an annual basis, subject to certain carryforward provisions, pursuant to Section 382 of the Internal Revenue Code of 1986, as amended, as a result of a greater than 50% change in ownership that occurred in the three-year period ending at the time of the AIM listing and public offering. The Company has calculated that for the period ending December 31, 2022, the cumulative limitation amount exceeds the NOLs subject to the limitation. In addition, the Company's NOLs may also be limited as a result of ownership changes subsequent to the 2016 AIM listing. The Company has not yet calculated such subsequent limitations.

Leases

Right-of-use ("ROU") assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. In transactions where the Company is the lessee, at the inception of a contract, the Company determines if the arrangement is, or contains, a lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. Lease expense is recognized on a straight-line basis over the lease term.

The Company has made certain accounting policy elections for leases where it is the lessee whereby the Company (i) does not recognize ROU assets or lease liabilities for short-term leases (those with original terms of 12-months or less) and (ii) combines lease and non-lease elements of its operating leases. See Note 9 for additional details over leases where the Company is the lessee.

All transactions where the Company is the lessor are short-term (one year or less) and have been classified as operating leases. All leases require upfront payments covering the full period of the lease and thus, there are no future payments expected to be received from existing leases. See Note 3 for details over revenue recognition related to lease agreements.

Loss Per Share

Basic loss per share is computed by dividing net loss available to common shareholders by the weighted average number of shares of Common Stock outstanding during the period.

For periods of net income, and when the effects are not anti-dilutive, diluted earnings per share is computed by dividing net income available to common shareholders by the weighted-average number of shares outstanding plus the impact of all potential dilutive common shares, consisting primarily of common stock options and stock purchase warrants using the treasury stock method.

For periods of net loss, diluted loss per share is calculated similarly to basic loss per share because the impact of all dilutive potential common shares is anti-dilutive. The number of anti-dilutive shares, consisting of stock options and stock purchase warrants, which has been excluded from the computation of diluted loss per share, was 12.9 million and 10.4 million for the years ended December 31, 2020 and 2019, respectively.

Recent Accounting Pronouncements

Recently Adopted

On January 1, 2020, the Company adopted new guidance addressing the accounting for implementation, setup and other upfront costs paid by a customer in a cloud computing or hosting arrangement. The guidance aligns the accounting treatment of these costs incurred in a hosting arrangement treated as a service contract with the requirements for capitalization and amortization costs to develop or obtain internal-use software. The adoption did not have a material effect on the Company's consolidated financial statements.

Unadopted

In June 2016, the Financial Accounting Standards Board ("FASB") issued guidance with respect to measuring credit losses on financial instruments, including trade receivables. The guidance eliminates the probable initial recognition threshold that was previously required prior to recognizing a credit loss on financial instruments. The credit loss estimate can now reflect an entity's current estimate of all future expected credit losses. Under the previous guidance, an entity only considered past events and current conditions. The guidance is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. Early adoption is permitted for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. The adoption of certain amendments of this guidance must be applied on a modified retrospective basis and the adoption of the remaining amendments must be applied on a prospective basis. The Company is currently evaluating the impact, if any, that this new accounting pronouncement will have on its consolidated financial statements.

In August 2020, the FASB issued guidance with respect to (i) accounting for convertible instruments, (ii) accounting for contracts in an entity's own equity as derivatives and (iii) earnings per share calculations. The guidance attempts to simplify the accounting for convertible instruments by eliminating the requirement to separate embedded conversion options in certain circumstances. The guidance also provides for updated disclosure requirements for convertible instruments. The guidance further updates the criteria for determining whether a contract in an entity's own equity can be classified as equity. Lastly, the guidance specifically addresses how to account for the effect of convertible instruments and potential cash settled instruments in calculating diluted earnings per share. The guidance is effective for fiscal years beginning after December 15, 2021, including interim periods within those fiscal years. Early adoption is permitted for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. The adoption of this guidance may be applied on a modified retrospective basis or a full retrospective basis. The Company is currently evaluating the impact, if any, that this new accounting pronouncement will have on its consolidated financial statements.

The Company has evaluated all other issued and unadopted Accounting Standards Updates and believes the adoption of these standards will not have a material impact on its results of operations, financial position, or cash flows.

3. Revenue

Revenue is principally from the sale or lease of instruments and processing assemblies, as well as from extended warranties. In some arrangements, product and services have been sold together representing distinct performance obligations. In such arrangements the Company allocates the sale price to the various performance obligations in the arrangement on a relative selling price basis. Under this basis, the Company determines the estimated selling price of each performance obligation in a manner that is consistent with that used to determine the price to sell the deliverable on a standalone basis.

Revenue is recognized at the time control is transferred to the customer and the performance obligation is satisfied. Revenue from the sale of instruments and processing assemblies is generally recognized at the time of shipment to the customer, provided no significant vendor obligations remain and collectability is reasonably assured. Revenue from equipment leases are recognized ratably over the contractual term of the lease agreement and when specific milestones are achieved by a customer. Licensing fee revenue is recognized ratably over the license period. Revenue from fees for research services is recognized when services have been provided.

Disaggregated revenue for the year ended December 31, 2020 is as follows:

	Revenue from Contracts with Customers	Revenue from Lease Elements	Total Revenue
Product Sales	$14,850,200	$ —	$14,850,200
Leased Elements	—	10,717,400	10,717,400
Other	601,300	—	601,300
Total	$15,451,500	$10,717,400	$26,168,900

Disaggregated revenue for the year ended December 31, 2019 is as follows:

	Revenue from Contracts with Customers	Revenue from Lease Elements	Total Revenue
Product Sales	$12,917,800	$ —	$12,917,800
Leased Elements	—	8,363,500	8,363,500
Other	339,400	—	339,400
Total	$13,257,200	$8,363,500	$21,620,700

Additional disclosures relating to Revenue from Contracts with Customers

Changes in deferred revenue for the year ended December 31, 2020 were as follows:

Balance at January 1, 2020	$3,452,800
Revenue recognized in the current period from amounts included in the beginning balance	3,191,200
Current period deferrals, net of amounts recognized in the current period	4,752,700
Balance at December 31, 2020	$5,014,300

Changes in deferred revenue for the year ended December 31, 2019 were as follows:

Balance at January 1, 2019	$2,770,100
Revenue recognized in the current period from amounts included in the beginning balance	2,435,000
Current period deferrals, net of amounts recognized in the current period	3,117,700
Balance at December 31, 2019	$3,452,800

Remaining contract consideration for which revenue has not been recognized due to unsatisfied performance obligations with a duration greater than one year was approximately $227,500 at December 31, 2020, of which the Company expects to recognize approximately $56,200 in 2021, $56,200 in 2022, $41,900 in 2023, $22,000 in 2024 and $51,200 thereafter.

In the years ended December 31, 2020 and 2019, the Company did not incur, and therefore did not defer, any material incremental costs to obtain contracts or costs to fulfil contracts.

4. Debt

The Company originally entered into a credit facility with Midcap Financial SBIC, LP (“MidCap”) in March 2014. In February 2019, the Company paid off the MidCap credit facility in full in accordance with its terms and conditions.

In November 2019, the Company entered into a new credit facility with MidCap. The credit facility provided for a $5 million term loan maturing on November 1, 2024. The term loan provides for (i) an interest rate of one-month Libor plus 6.5% with a 1.5% Libor floor, (ii) monthly interest payments, (iii) 30 monthly principal payments of approximately $166,700 beginning June 2022 and (iv) a 3% final

payment fee. The Company used the proceeds from the credit facility for general operating purposes. The debt is collateralized by substantially all assets of the Company.

In conjunction with the credit facility the Company issued the lender a warrant to purchase 71,168 shares of common stock at a price of £1.09081 per share. The warrant is exercisable at any time through the tenth anniversary of issuance (see Note 5). In connection with the credit facility, the Company also incurred expenses of approximately $47,300. The warrant and expenses resulted in recording a debt discount which is amortized as interest expense over the term of the loan. At December 31, 2020, the term loan had an outstanding principal balance of $5 million and $83,000 of unamortized debt discount.

In April 2020, the Company received a loan from Silicon Valley Bank in the amount of $1,440,000 under the US Small Business Administration's Paycheck Protection Program ("PPP"). The PPP was established as part of the US Coronavirus Aid, Relief, and Economic Security ("CARES") Act and provides for potential forgiveness of the loan upon the Company meeting certain conditions as to the use of the proceeds. The loan provided for interest at 1% and a maturity date of April 2022. In May 2020, subsequent to the Company's 2020 equity raise (see Note 5), the Company repaid the loan in full.

5. Stockholders' Equity

Common Stock

In March 2019, the Company completed an equity capital raise issuing approximately 5.9 million shares of Common Stock at a price of £1.70 (or approximately $2.25) per share. The transaction generated gross proceeds of approximately £10 million (or approximately $13.3 million). In conjunction with the transaction, the Company incurred costs of approximately $1.0 million which resulted in the Company receiving net proceeds of approximately $12.3 million.

In May 2020, the Company completed an equity capital raise issuing 19,181,423 shares of its common stock at a price of £1.31 (or approximately $1.60) per share in an unregistered offering. The transaction generated gross proceeds of approximately £25.1 million (or $30.5 million). In conjunction with the transaction, the Company incurred costs of approximately $1.9 million which resulted in the Company receiving net proceeds of approximately $28.6 million.

During the year ended December 31, 2020, the Company issued 797,467 shares of Common Stock as a result of stock option exercises, receiving gross proceeds of $401,000. During the year ended December 31, 2019, the Company issued 162,500 shares of Common Stock as a result of stock option exercises, receiving gross proceeds of $132,700.

Warrant

In connection with the November 2019 credit facility the Company issued the lender a warrant to purchase 71,168 shares of Common Stock at an exercise price of £1.09081 per share. The warrant is exercisable at any time through the tenth anniversary of issuance. The warrant is classified as a liability as its strike price is in a currency other than the Company's functional currency. The warrant is recorded at fair value at the end of each reporting period with changes from the prior balance sheet date recorded on the consolidated statements of operations (see Note 6).

Stock Options

The Company adopted the MaxCyte, Inc. Long-Term Incentive Plan (the "Plan") in January 2016 to amend and restate the MaxCyte 2000 Long-Term Incentive Plan to provide for the awarding of (i) stock options, (ii) restricted stock, (iii) incentive shares, and (iv) performance awards to employees, officers, and Directors of the Company and to other individuals as determined by the Board of Directors. Under the Plan, as amended, the maximum number of shares of Common Stock of the Company that the Company may issue is increased by ten percent (10%) of the shares that are issued and outstanding at the time awards are made under the Plan. On December 10, 2019 and October 27, 2020, the Company's Board resolved to increase the number of stock options under the Plan by 3,000,000 and 1,500,000, respectively, to provide sufficient shares to allow competitive equity compensation in its primary markets for staff and consistent with practices of comparable companies.

At December 31, 2020 there were 4,175,737 awards available to be issued under the Plan.

The Company has not issued any restricted stock, incentive shares, or performance awards under the Plan. Stock options granted under the Plan may be either incentive stock options as defined by the Internal Revenue Code or non-qualified stock options. The Board of Directors determines who will receive options under the Plan and determines the vesting period. The options can have a maximum term of no more than ten years. The exercise price of options granted under the Plan is determined by the Board of Directors and must be at least equal to the fair market value of the Common Stock of the Company on the date of grant.

A summary of stock option activity for the years ended December 31, 2020 and 2019 is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2019	8,388,500	$1.49	7.4	$10,354,900
Granted	2,538,500	$2.17		
Exercised	(162,500)	$0.82		$ 217,600
Forfeited	(465,215)	$2.48		
Outstanding at December 31, 2019	10,299,285	$1.63	7.0	$ 6,471,500
Granted	3,849,448	$3.00		
Exercised	(797,467)	$0.52		$ 2,198,300
Forfeited	(487,036)	$2.59		
Outstanding at December 31, 2020	12,864,230	$2.11	7.1	$65,576,300
Exercisable at December 31, 2020	7,609,667	$1.53	5.9	$43,196,900

The weighted-average fair value of the options granted during the years ended December 31, 2020 and 2019 was estimated to be $1.39 and $1.08, respectively.

As of December 31, 2020, total unrecognized compensation expense was $7,130,900, which will be recognized over the next 2.9 years.

Stock-based compensation expense for the years ended December 31, 2020 and 2019 was classified as follows on the consolidated statements of operations:

	2020	2019
General and administrative	$1,230,700	$ 827,500
Sales and marketing	484,700	325,700
Research and development	756,400	598,900
Total	$2,471,800	$1,752,100

6. Fair Value

The Company's consolidated balance sheets include various financial instruments (primarily cash and cash equivalents, short-term investments, accounts receivable and accounts payable) that are carried at cost, which approximates fair value due to the short-term nature of the instruments. Notes payable are reflective of fair value based on market comparable instruments with similar terms.

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company has an outstanding warrant originally issued in connection with the November 2019 debt financing (see Note 4) that is accounted for as a liability whose fair value is determined using Level 3 inputs. The following table identifies the carrying amounts of this warrant at December 31, 2020:

	Level 1	Level 2	Level 3	Total
Liabilities				
Liability classified warrant	$ —	$ —	$441,200	$441,200
Total at December 31, 2020	$ —	$ —	$441,200	$441,200

The following table identifies the carrying amounts of this warrant at December 31, 2019:

	Level 1	Level 2	Level 3	Total
Liabilities				
Liability classified warrant	$ —	$ —	$74,700	$74,700
Total at December 31, 2019	$ —	$ —	$74,700	$74,700

The following table presents the activity for those items measured at fair value on a recurring basis using Level 3 inputs for the year ended December 31, 2020:

	Mark-to-market liabilities — warrant
Balance at December 31, 2019	$ 74,700
Change in fair value	366,500
Balance at December 31, 2020	$441,200

The following table presents the activity for those items measured at fair value on a recurring basis using Level 3 inputs for the year ended December 31, 2019:

	Mark-to-market liabilities — warrant
Balance at December 31, 2018	$ —
Issuance	60,700
Change in fair value	14,000
Balance at December 31, 2019	$74,700

The gains and losses resulting from the changes in the fair value of the liability classified warrant are classified as other income or expense in the accompanying consolidated statements of operations. The fair value of the Common Stock purchase warrants is determined based on the Black-Scholes option pricing model or other option pricing models as appropriate and includes the use of unobservable inputs such as the expected term, anticipated volatility and expected dividends. Changes in any of the assumptions related to such unobservable inputs identified above may change the embedded conversion options' fair value; increases in expected term, anticipated volatility and expected dividends generally result in increases in fair value, while decreases in these unobservable inputs generally result in decreases in fair value.

The Company has no other financial assets or liabilities measured at fair value on a recurring basis.

Financial Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

Money market funds and commercial paper classified as held-to-maturity are measured at fair value on a non-recurring basis when they are deemed to be impaired on an other-than-temporary basis. No such fair value impairment was recognized during the years ended December 31, 2020 or 2019.

Non-Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company has no non-financial assets and liabilities that are measured at fair value on a recurring basis.

Non-Financial Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

The Company measures its long-lived assets, including property and equipment, at fair value on a non-recurring basis. These assets are recognized at fair value when they are deemed to be impaired. No such fair value impairment was recognized during the years ended December 31, 2020 or 2019.

7. Retirement Plan

The Company sponsors a defined-contribution 401(k) retirement plan covering eligible employees. Participating employees may voluntarily contribute up to limits provided by the Internal Revenue Code. The Company matches employee contributions equal to 50% of the salary deferral contributions, with a maximum Company contribution of 3% of the employees' eligible compensation. In the years ended December 31, 2020 and 2019, Company matching contributions amounted to $351,500 and $277,700, respectively.

8. Income Taxes

The Company did not recognize a provision (benefit) for income taxes in 2020 or 2019. Based on the Company's historical operating performance, the Company has provided a full valuation allowance against its net deferred tax assets.

Net deferred tax assets as of December 31, 2020 and 2019 are presented in the table below:

	2020	2019
Deferred tax assets:		
Net operating loss carryforwards	$ 14,998,000	$ 12,842,100
Research and development credits	875,400	875,400
Stock-based compensation	1,662,600	1,146,200
Deferred revenue	1,387,200	965,800
Lease liability	566,900	647,800
Accruals and other	971,700	652,700
Deferred tax liabilities:		
ROU asset	(538,500)	(630,300)
Depreciation	—	(25,300)
	19,923,300	16,474,500
Valuation allowance	(19,923,300)	(16,474,500)
Net deferred tax assets	$ —	$ —

The Federal net operating loss ("NOL") carryforwards of approximately $57.8 million as of December 31, 2020 will begin to expire in various years beginning in 2025. The use of NOL carryforwards is limited on an annual basis under Internal Revenue Code Section 382 when there is a change in ownership (as defined by this code section). Based on changes in Company ownership in the past, the Company believes that the use of its NOL carryforwards generated prior to the date of the change is limited on an annual basis; NOL carryforwards generated subsequent to the date of change in ownership can be used without limitation. The use of the Company's NOL carryforwards may be restricted further if there are future changes in Company ownership. Additionally, despite the net operating loss carryforwards, the Company may have a future tax liability due to state tax requirements.

Income tax expense reconciled to the tax computed at statutory rates for the years ended December 31, 2020 and 2019 is as follows:

	2020	2019
Federal income taxes (benefit) at statutory rates	$(2,481,400)	$(2,707,900)
State income taxes (benefit), net of Federal benefit	(787,600)	(898,800)
Windfall tax benefits	(556,900)	(40,200)
Permanent differences, rate changes and other	377,100	(29,700)
Change in valuation allowance	3,448,800	3,676,600
Total Income Tax Expense	—	—

9. Commitments and Contingencies

Operating Leases

From 2009 through September 2019, the Company entered into various new and amended leases for office and laboratory space. A member of the Company's Board of Directors is the CEO and Board member of the lessor of certain of these leases for which the rent payments totaled $623,000 and $416,800 in 2020 and 2019, respectively.

All the Company's long-term office and laboratory leases expire in October 2023 and provide for annual increases to the base rent of between 3% and 5%. The current monthly base lease payment for all office and laboratory leases is approximately $56,100. In addition to base rent, the Company pays a pro-rated share of common area maintenance ("CAM") costs for the entire building, which is adjusted annually based on actual expenses incurred. None of the Company's current operating leases contain any renewal provisions.

All the Company's long-term office and laboratory leases are classified as operating leases. The Company used a discount rate of 8% in calculating its lease liability under its operating leases. The September 2019 lease agreements and modifications resulted in the Company establishing approximately $2,209,200 of ROU assets and $2,247,400 of lease liabilities.

At December 31, 2020, the Company had a $1,728,300 ROU asset, a $572,500 short-term lease liability and $1,234,600 long-term lease liability related to its operating leases.

In July 2020, the Company commenced a one-year office lease providing for monthly payments of $2,900. The Company applied the practical expedient and consequently, no ROU asset or lease liability was recognized for this short-term lease.

At December 31, 2020, the weighted average remaining lease term for the Company's operating leases was 2.8 years.

Finance Leases

In 2020, the Company entered into a three-year laboratory equipment lease that expires in April 2023. The lease provides for monthly payments of approximately $9,200 per month and includes an end of lease bargain purchase option. The lease is classified as a finance lease. The Company used a discount rate of 5.5% in calculating its lease liability under this finance lease resulting in the establishment of approximately a $301,700 ROU asset and offsetting lease liabilities.

At December 31, 2020, the Company had a $218,300 ROU asset, a $100,000 short-term lease liability included in "Accrued expenses and other" and $142,200 long-term lease liability included in 'Other liabilities' related to its finance lease.

All Leases

Lease costs for the years ended December 31, 2020 and 2019 are as follows:

	2020	2019
Finance lease cost		
Amortization of ROU asset	$ 83,400	$ —
Interest on expense	14,400	—
Operating lease cost	673,900	551,100
Short-term lease cost	19,100	—
Variable lease cost	289,500	217,700
Total lease cost	$1,080,300	$768,800

Maturities of lease liabilities as of December 31, 2020 were as follows:

	Operating Leases	Finance Leases
2021	$ 696,300	$110,800
2022	717,400	110,800
2023	614,800	36,900
Total lease payments	2,028,500	258,500
Discount factor	(221,400)	(16,300)
Present value of lease liabilities	$1,807,100	$242,200

10. Subsequent Events

In preparing these consolidated financial statements, the Company has evaluated events and transactions for potential recognition or disclosure through the date the consolidated financial statements were available to be issued.

In February 2021, the Company completed a private placement offering of 5,740,000 shares of its Common Stock. The shares were sold at a price of £7.00 (or approximately $9.64) per share generating approximately £40.2 million (or approximately $55.3 million) of gross proceeds.

In March 2021, the Company paid off, in full, all amounts due under its $5 million Midcap term loan in accordance with its terms.

In the first quarter of 2021, the Company elected to conclude all pre-clinical and clinical activities related to the CARMA platform which were substantially completed by March 2021.

MaxCyte, Inc.

Condensed Consolidated Interim Balance Sheets

	March 31, 2021 (unaudited)	December 31, 2020 (see Note 2)
Assets		
Current assets:		
Cash and cash equivalents	$ 78,703,700	$ 18,755,200
Short-term investments	—	16,007,500
Accounts receivable	4,294,300	5,171,900
Inventory	4,463,900	4,315,800
Other current assets	985,300	1,003,000
Total current assets	**88,447,200**	**45,253,400**
Property and equipment, net	4,692,100	4,546,200
Right of use asset – operating leases	1,591,000	1,728,300
Right of use asset – finance leases	194,500	218,300
Other assets	83,000	33,900
Total assets	**$ 95,007,800**	**$ 51,780,100**
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 417,900	$ 890,200
Accrued expenses and other	4,357,200	5,308,500
Operating lease liability, current	589,600	572,600
Deferred revenue	6,067,400	4,843,000
Total current liabilities	**11,432,100**	**11,614,300**
Note payable, net of discount, deferred fees	—	4,917,000
Operating lease liability, net of current portion	1,080,000	1,234,600
Other liabilities	1,210,100	788,800
Total liabilities	**13,722,200**	**18,554,700**
Commitments and contingencies (Note 8)		
Stockholders' equity		
Common stock, $0.01 par; 200,000,000 shares authorized, 84,689,559 and 77,382,473 shares issued and outstanding at March 31, 2021 and December 31, 2020, respectively	846,900	773,800
Additional paid in capital	182,766,600	127,673,900
Accumulated deficit	(102,327,900)	(95,222,300)
Total stockholders' equity	**81,285,600**	**33,225,400**
Total liabilities and stockholders' equity	**$ 95,007,800**	**$ 51,780,100**

See accompanying notes to unaudited condensed consolidated interim financial statements.

MaxCyte, Inc.

Condensed Consolidated Interim Statements of Operations (Unaudited)

	Three months ended March 31,	
	2021	2020
Revenue	**$ 6,494,900**	**$ 5,742,000**
Costs of good sold	693,100	659,000
Gross profit	**5,801,800**	**5,083,000**
Operating expenses:		
Research and development	6,077,700	4,244,700
Sales and marketing	2,789,100	2,050,100
General and administrative	3,308,100	1,776,500
Total operating expenses	**12,174,900**	**8,071,300**
Operating loss	**(6,373,100)**	**(2,988,300)**
Other income (expense):		
Interest and other expense	(742,300)	(116,300)
Interest income	9,800	42,700
Total other income (expense)	**(732,500)**	**(73,600)**
Net loss	**$ (7,105,600)**	**$ (3,061,900)**
Basic and diluted net loss per share	**$ (0.09)**	**$ (0.05)**
Weighted average shares outstanding, basic and diluted	**81,004,081**	**57,403,583**

See accompanying notes to unaudited condensed consolidated interim financial statements.

MaxCyte, Inc.

Condensed Consolidated Interim Statements of Changes in Stockholders' Equity (Unaudited)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance at January 1, 2020	**57,403,583**	**$574,000**	**$96,433,700**	**$(83,405,900)**	**$13,601,800**
Stock-based compensation expense	—	—	547,600	—	547,600
Net loss	—	—	—	(3,061,900)	(3,061,900)
Balance at March 31, 2020	**57,403,583**	**$574,000**	**$96,981,300**	**$(86,467,800)**	**$11,087,500**

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount			
Balance at January 1, 2021	**77,382,473**	**$773,800**	**$127,673,900**	**$ (95,222,300)**	**$33,225,400**
Issuance of common stock	5,740,000	57,400	51,751,500	—	51,808,900
Stock-based compensation expense	—	—	1,319,800	—	1,319,800
Exercise of stock options	1,567,086	15,700	2,021,400	—	2,037,100
Net loss	—	—	—	(7,105,600)	(7,105,600)
Balance at March 31, 2021	**84,689,559**	**$846,900**	**$182,766,600**	**$(102,327,900)**	**$81,285,600**

See accompanying notes to unaudited condensed consolidated interim financial statements.

MAXCYTE, INC.

Condensed Consolidated Interim Statements of Cash Flows (Unaudited)

	Three months ended March 31,	
	2021	2020
Cash flows from operating activities:		
Net loss	$ (7,105,600)	$ (3,061,900)
Adjustments to reconcile net loss to cash used in operating activities:		
Depreciation and amortization	315,900	221,700
Net book value of consigned equipment sold	1,600	12,000
Fair value adjustment for liability classified warrants	347,900	(200)
Loss on disposal of fixed assets	6,100	—
Stock-based compensation	1,319,800	547,600
Bad debt recovery	—	(20,000)
Amortization of discounts on investments	7,500	400
Non-cash interest expense	5,400	5,400
Changes in operating assets and liabilities:		
Accounts receivable	877,600	(697,100)
Inventory	(287,900)	(525,600)
Other current assets	17,700	128,100
Right of use asset – operating leases	137,300	128,600
Right of use asset – finance leases	23,800	11,900
Other assets	(49,100)	(140,900)
Accounts payable, accrued expenses and other	(1,420,300)	(2,667,200)
Operating lease liability	(137,600)	(36,600)
Deferred revenue	1,224,400	376,100
Other liabilities	73,400	219,700
Net cash used in operating activities	(4,642,100)	(5,498,000)
Cash flows from investing activities:		
Purchases of short-term investments	—	(1,001,900)
Maturities of short-term investments	16,000,000	1,499,900
Purchases of property and equipment	(308,500)	(706,000)
Net cash provided by (used in) investing activities	15,691,500	(208,000)
Cash flows from financing activities:		
Principal payments on notes payable	(4,922,400)	—
Proceeds from exercise of stock options	2,037,100	—
Principal payments on finance leases	(24,500)	—
Proceeds, net from issuance of common stock	51,808,900	—
Net cash provided by financing activities	48,899,100	—
Net increase (decrease) in cash and cash equivalents	59,948,500	(5,706,000)
Cash and cash equivalents, beginning of period	18,755,200	15,210,800
Cash and cash equivalents, end of period	$78,703,700	$ 9,504,800
Supplemental cash flow information:		
Cash paid for interest	$ 416,300	$ 104,200
Supplemental disclosure of non-cash investing and financing activities:		
Property and equipment purchases included in accounts payable	$ 21,200	$ 93,000

See accompanying notes to unaudited condensed consolidated interim financial statements.

MaxCyte. Inc.

Notes to Consolidated Condensed Interim Financial Statements (Unaudited)

1. Organization and Description of Business

MaxCyte, Inc. (the "Company" or "MaxCyte") was incorporated as a majority owned subsidiary of EntreMed, Inc. ("EntreMed") on 31 July 1998, under the laws and provisions of the state of Delaware and commenced operations on July 1, 1999. In November 2002, MaxCyte was recapitalised and EntreMed was no longer deemed to control the Company.

MaxCyte is a global life sciences company focused on advancing the discovery, development and commercialization of next-generation cell therapies. MaxCyte leverages its proprietary cell engineering technology platform to enable the programs of its biotechnology and pharmaceutical company customers who are engaged in cell therapy, including gene editing and immuno-oncology, as well as in drug discovery and development and biomanufacturing. The Company licenses and sells its instruments and technology and sells its consumables to developers of cell therapies and to pharmaceutical and biotechnology companies for use in drug discovery and development and biomanufacturing. In early 2020, the Company established a wholly owned subsidiary, CARMA Cell Therapies, Inc. ("CCTI"), as part of its development of CARMA, MaxCyte's proprietary, mRNA-based, clinical-stage, immuno-oncology cell therapy. In the first quarter of 2021, the Company elected to conclude all pre-clinical and clinical activities related to the CARMA platform which were substantially completed by March 2021. During the three months ended March 31, 2021, the Company incurred CARMA-related operating expenses of $3.9 million, which consisted of $2.2 million of on-going CARMA expenses primarily for preclinical research and clinical activities as well as $1.7 million of winddown expenses principally consisting of severance, legal and other costs associated with the cessation of CARMA activities.

The COVID-19 pandemic has disrupted economic markets and the economic impact, duration and spread of related effects is uncertain at this time and difficult to predict. As a result, it is not possible to ascertain the overall future impact of COVID-19 on the Company's business and, depending upon the extent and severity of such effects, including, but not limited to potential slowdowns in customer operations, extension of sales cycles, shrinkage in customer capital budgets or delays in customers' clinical trials, the pandemic could have a material adverse effect on the Company's business, results of operations, financial condition and cash flows. In 2020, the Company made adjustments to its operating, sales and marketing practices to mitigate the effects of COVID-19 restrictions which reduced planned spending, particularly on travel and marketing expenditures. In addition, COVID-19 restrictions may have delayed or slowed the research activities of some existing and prospective customers. It is not possible to quantify the impact of COVID-19 on the Company's revenues and expenses in the first quarter of 2021 or its expected impact on future periods.

2. Summary of Significant Accounting Policies

Basis of Presentation

The interim condensed consolidated balance sheet as of March 31, 2021, and the interim condensed consolidated statements of operations, changes in stockholders' equity and cash flows for the three months ended March 31, 2021 and 2020 are unaudited. The unaudited interim condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("US GAAP") and, in the opinion of management, reflect all adjustments, consisting of normal recurring adjustments necessary for the fair presentation of the Company's financial position as of March 31, 2021, and the results of its operations and its cash flows for the three months ended March 31, 2021 and 2020. The results of operations for the three months ended March 31, 2021 are not necessarily indicative of the results to be expected for the year ending December 31, 2021, any other interim periods, or any future year or period. Certain information and footnote disclosure normally included in annual financial statements prepared in accordance with U.S. GAAP have been condensed or omitted pursuant to instructions, rules, and regulations prescribed by the United States Securities and Exchange Commission. The Company believes that the disclosures provided herein are adequate to make the information presented not misleading when these unaudited

interim condensed consolidated financial statements are read in conjunction with the audited financial statements and notes included elsewhere in this prospectus.

Significant Accounting Policies

The Company's significant accounting policies are disclosed in its audited consolidated financial statements for the year ended December 31, 2020 included in this prospectus and have not materially changed during the three months ended March 31, 2021, except as noted below.

Concentration

During the three months ended March 31, 2021 and 2020, one customer represented 18% and 22% of revenue, respectively, in part due to a one-time milestone event in 2020. As of March 31, 2021 and 2020, one customer accounted for 16% and 22% of accounts receivable, respectively.

During the three months ended March 31, 2021, the Company purchased approximately 58% of its inventory from two suppliers. During the three months ended March 31, 2020, the Company purchased approximately 48% of its inventory from a single supplier. At March 31, 2020, amounts payable to a single supplier totaled 73% of total accounts payable.

Foreign Currency

The Company's functional currency is the US dollar; transactions denominated in foreign currencies are subject to currency risk. The Company recognized $19,700 and $24,300 foreign currency transaction gains for the three months ended March 31, 2021 and 2020, respectively.

Cash, Cash Equivalents and Short-term Investments

The following table summarizes the Company's cash equivalents and short-term investments at December 31, 2020:

Description	Classification	Amortized cost	Gross unrecognized holding gains	Gross unrecognized holding losses	Aggregate fair value
Money market funds	Cash equivalents	$ 8,702,200	—	—	$ 8,702,200
Commercial Paper	Cash equivalents	6,523,500	—	—	6,523,500
Commercial Paper	Short-term investments	13,996,800	1,800	—	13,998,600
Corporate Debt	Short-term investments	2,010,700	—	(100)	2,010,600
Total Investments		$31,233,200	$1,800	$(100)	$31,234,900

The following table summarizes the Company's cash equivalents and investments at March 31, 2021:

Description	Classification	Amortized cost	Gross unrecognized holding gains	Gross unrecognized holding losses	Aggregate fair value
Money market funds	Cash equivalents	$31,244,500	—	—	$31,244,500
Total Investments		$31,244,500	—	—	$31,244,500

At times the Company's cash balances may exceed federally insured limits and cash may also be deposited in foreign bank accounts that are not covered by federal deposit insurance. The Company does not believe that this results in any significant credit risk.

MaxCyte. Inc.

Notes to Consolidated Condensed Interim Financial Statements (Unaudited)

Inventory

Inventory is carried at the lower of cost or net realizable value. Inventory consisted of the following at:

	March 31, 2021	December 31, 2020
Raw materials inventory	$2,045,800	$1,771,300
Finished goods inventory	2,418,100	2,544,500
Total Inventory	$4,463,900	$4,315,800

The Company determined no allowance for obsolescence was necessary at March 31, 2021 or December 31, 2020.

Accounts Receivable

Accounts receivable are reduced by an allowance for doubtful accounts, if needed. The Company determined no allowance was necessary at December 31, 2020 and March 31, 2021.

Property and Equipment

Property and equipment are stated at cost. Depreciation is computed using the straight-line method. Leasehold improvements are amortized over the shorter of the estimated lease term or useful life.

Property and equipment consist of the following:

	March 31, 2021	December 31, 2020
Furniture and equipment	$ 3,549,300	$ 3,492,900
Instruments	1,574,400	1,424,600
Leasehold improvements	641,400	641,400
Internal-use software under development	229,200	—
Internal-use software	1,987,600	1,963,000
Accumulated depreciation and amortization	(3,289,800)	(2,975,700)
Property and equipment, net	$ 4,692,100	$ 4,546,200

For the year ended December 31, 2020, the Company transferred $276,600 of instruments previously classified as inventory to property and equipment leased to customers. For the three months ended March 31, 2021 and 2020, the Company transferred $139,800 and $87,500, respectively, of instruments previously classified as inventory to property and equipment leased to customers.

For the three months ended March 31, 2021 and 2020, the Company incurred depreciation and amortization expense of $315,900 and $221,700, respectively.

In the three months ended March 31, 2020, the Company capitalized approximately $2,500 of interest expense related to capitalized software development projects. No interest expense was capitalized in the three months ended March 31, 2021.

Deferred Offering Costs

The Company capitalizes certain legal, accounting and other third-party fees that are directly associated with in-process equity financings as deferred offering costs (non-current) until such financings are consummated. After consummation of the equity financing, these costs are recorded in stockholders' equity as a reduction of proceeds received as a result of the offering. Should the equity financing to which those costs relate no longer be considered probable of being consummated, all deferred offering costs will be charged to operating expenses in the consolidated statement of operations at such time.

As of December 31, 2020 and March 31, 2021, $0 and $38,000, respectively, of deferred offering costs are capitalized in other assets.

Stock-Based Compensation

The Company grants stock-based awards in exchange for employee, consultant and non-employee director services. The value of the award is recognized as expense on a straight-line basis over the requisite service period.

The estimated grant date fair value of employee stock options was calculated using the Black-Scholes option-pricing valuation model, based on the following assumptions:

	Three months ended March 31,	
	2021	2020
Volatility	55 - 57%	49%
Dividend yield	—	—
Risk-free interest rate	0.7 - 0.8%	1.2 - 1.7%
Expected return (in years)	6	6

The Company records forfeitures as they occur.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are determined based on differences between the financial reporting and tax basis of assets and liabilities and are measured using the enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the period that such tax rate changes are enacted. The measurement of a deferred tax asset is reduced, if necessary, by a valuation allowance if it is more-likely-than-not that all or a portion of the deferred tax asset will not be realized.

Management uses a recognition threshold and a measurement attribute for the financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return, as well as guidance on derecognition, classification, interest and penalties and financial statement reporting disclosures. For those benefits to be recognized, a tax position must be more-likely-than-not to be sustained upon examination by taxing authorities. The Company recognizes interest and penalties accrued on any unrecognized tax exposures as a component of income tax expense. The Company has not identified any uncertain income tax positions that could have a material impact to the consolidated financial statements.

The Company is subject to taxation in various jurisdictions in the United States and abroad and remains subject to examination by taxing jurisdictions for 2016 and all subsequent periods. The Company had a Federal Net Operating Loss (“NOL”) carry forward of $57.8 million as of December 31, 2020, which was generally available as a deduction against future income for US federal corporate income tax purposes, subject to applicable carryforward limitations. As a result of the March 2016 public offering of common stock and listing on the AIM market of the London Stock Exchange, the Company’s NOLs are limited on an annual basis, subject to certain carryforward provisions, pursuant to Section 382 of the Internal Revenue Code of 1986, as amended, as a result of a greater than 50% change in ownership that occurred in the three-year period ending at the time of the AIM listing and public offering. The Company has calculated that for the period ending December 31, 2022, the cumulative limitation amount exceeds the NOLs subject to the limitation. In addition, the Company’s NOLs may also be limited as a result of ownership changes subsequent to the 2016 AIM listing. The Company has not yet calculated such subsequent limitations.

The Company did not recognize a provision or benefit for income taxes during the three months ended March 31, 2021 and 2020.

Leases

In transactions where the Company is the lessee, at the inception of a contract, the Company determines if the arrangement is, or contains, a lease. See Note 8 for additional details over leases where the Company is the lessee.

All transactions where the Company is the lessor are short-term (one year or less) and have been classified as operating leases. All leases require upfront payments covering the full period of the lease and thus, there are no future payments expected to be received from existing leases. See Note 3 for details over revenue recognition related to lease agreements.

Loss Per Share

Basic loss per share is computed by dividing net loss available to common shareholders by the weighted average number of shares of Common Stock outstanding during the period.

For periods of net income, and when the effects are not anti-dilutive, diluted earnings per share is computed by dividing net income available to common shareholders by the weighted-average number of shares outstanding plus the impact of all potential dilutive common shares, consisting primarily of common stock options and stock purchase warrants using the treasury stock method.

For periods of net loss, diluted loss per share is calculated similarly to basic loss per share because the impact of all dilutive potential common shares is anti-dilutive. The number of anti-dilutive shares, consisting of stock options and stock purchase warrants, which has been excluded from the computation of diluted loss per share, was 12.1 million and 12.5 million for the three months ended March 31, 2021 and 2020, respectively.

Recent Accounting Pronouncements

Recently Adopted

In January 1, 2021, the Company adopted new guidance addressing income taxes, which is intended to simplify various aspects related to the accounting for income taxes. The guidance removes certain exceptions to the general principles in ASC 740 *Income Taxes*, and also clarifies and amends existing guidance to improve consistent application. The adoption did not have a material effect on the Company's condensed consolidated interim financial statements.

The Company has evaluated all other issued and unadopted Accounting Standards Updates and believes the adoption of these standards will not have a material impact on its results of operations, financial position, or cash flows.

3. Revenue

Revenue is principally from the sale or lease of instruments and processing assemblies, as well as from extended warranties. In some arrangements, product and services have been sold together representing distinct performance obligations. In such arrangements the Company allocates the sale price to the various performance obligations in the arrangement on a relative selling price basis. Under this basis, the Company determines the estimated selling price of each performance obligation in a manner that is consistent with that used to determine the price to sell the deliverable on a standalone basis.

Revenue is recognized at the time control is transferred to the customer and the performance obligation is satisfied. Revenue from the sale of instruments and processing assemblies is generally recognized at the time of shipment to the customer, provided no significant vendor obligations remain and collectability is reasonably assured. Revenue from equipment leases are recognized ratably over the

contractual term of the lease agreement and when specific milestones are achieved by a customer. Licensing fee revenue is recognized ratably over the license period. Revenue from fees for research services is recognized when services have been provided.

Disaggregated revenue for the three months ended March 31, 2021 is as follows:

	Revenue from Contracts with Customers	Revenue from Lease Elements	Total Revenue
Product Sales	$4,075,800	$ —	$4,075,800
Leased Elements	—	2,255,900	2,255,900
Other	163,200	—	163,200
Total	$4,239,000	$2,255,900	$6,494,900

Disaggregated revenue for three months ended March 31, 2020 is as follows:

	Revenue from Contracts with Customers	Revenue from Lease Elements	Total Revenue
Product Sales	$3,195,200	$ —	$3,195,200
Leased Elements	—	2,426,200	2,426,200
Other	120,600	—	120,600
Total	$3,315,800	$2,426,200	$5,742,000

Additional disclosures relating to Revenue from Contracts with Customers

Changes in deferred revenue for the three months ended March 31, 2021 were as follows:

Balance at January 1, 2021	$ 5,014,300
Revenue recognized in the current period from amounts included in the beginning balance	(2,032,300)
Current period deferrals, net of amounts recognized in the current period	3,390,200
Balance at March 31, 2021	$ 6,372,200

Changes in deferred revenue for the three months ended March 31, 2020 were as follows:

Balance at January 1, 2020	$ 3,452,800
Revenue recognized in the current period from amounts included in the beginning balance	(1,573,000)
Current period deferrals, net of amounts recognized in the current period	1,943,500
Balance at March 31, 2020	$ 3,823,300

Remaining contract consideration for which revenue has not been recognized due to unsatisfied performance obligations with a duration greater than one year at March 31, 2021 was approximately $379,800, of which the Company expects to recognize approximately $75,000 in one year or less, $75,800 in one to two years, $60,800 in two to three years, and $168,200 thereafter.

For the three months ended March 31, 2021 and March 31, 2020 and the year ended December 31, 2020, the Company did not incur, and therefore did not defer, any material incremental costs to obtain contracts or costs to fulfill contracts.

MaxCyte. Inc.

Notes to Consolidated Condensed Interim Financial Statements (Unaudited)

4. Debt

In November 2019, the Company entered into a new credit facility with MidCap Financial SBIC, LP ("MidCap"). The credit facility provided for a $5 million term loan maturing on November 1, 2024. The term loan provided for (i) an interest rate of one-month Libor plus 6.5% with a 1.5% Libor floor, (ii) monthly interest payments, (iii) 30 monthly principal payments of approximately $166,700 beginning June 2022 and (iv) a 3% final payment fee. The Company used the proceeds from the credit facility for general operating purposes. The debt was collateralized by substantially all assets of the Company.

In conjunction with the credit facility the Company issued the lender a warrant to purchase 71,168 shares of common stock at a price of £1.09081 per share. The warrant is exercisable at any time through the tenth anniversary of issuance (see Note 5). In connection with the credit facility, the Company also incurred expenses of approximately $47,300. The warrant and expenses resulted in recording a debt discount which is amortized as interest expense over the term of the loan. At December 31, 2020, the term loan had an outstanding principal balance of $5 million and $83,000 of unamortized debt discount.

In April 2020, the Company received a loan from Silicon Valley Bank in the amount of $1,440,000 under the US Small Business Administration's Paycheck Protection Program ("PPP"). The PPP was established as part of the US Coronavirus Aid, Relief, and Economic Security ("CARES") Act and provides for potential forgiveness of the loan upon the Company meeting certain conditions as to the use of the proceeds. The loan provided for interest at 1% and a maturity date of April 2022. In May 2020, subsequent to the Company's 2020 equity raise (see Note 5), the Company repaid the loan in full.

In March 2021, subsequent to the Company's 2021 equity raise (see Note 5), the Company repaid the MidCap loan in full. The Company incurred fees of approximately $260,000 associated with early repayment of the loan. The unamortized debt discounts and fees were expensed and recorded as interest expense.

5. Stockholders' Equity

Common Stock

During the three months ended March 31, 2021, the Company completed an equity capital raise issuing 5,740,000 shares of its common stock at a price of £7.00 (or approximately $9.64) per share. The transaction generated gross proceeds of approximately £40.2 million (or $55.3 million). In conjunction with the transaction, the Company incurred costs of approximately $3.5 million which resulted in the Company receiving net proceeds of approximately $51.8 million.

Warrant

In connection with the November 2019 credit facility the Company issued the lender a warrant to purchase 71,168 shares of Common Stock at an exercise price of £1.09081 per share. The warrant is exercisable at any time through the tenth anniversary of issuance. The warrant is classified as a liability as its strike price is in a currency other than the Company's functional currency. The warrant is recorded at fair value at the end of each reporting period with changes from the prior balance sheet date recorded on the consolidated condensed interim statements of operations (see Note 6).

Stock Options

The Company adopted the MaxCyte, Inc. Long-Term Incentive Plan (the "Plan") in January 2016 to amend and restate the MaxCyte 2000 Long-Term Incentive Plan to provide for the awarding of (i) stock options, (ii) restricted stock, (iii) incentive shares, and (iv) performance awards to employees, officers, and Directors of the Company and to other individuals as determined by the Board of Directors. Under the Plan, as amended, the maximum number of shares of Common Stock of the Company that the Company may issue is increased by ten percent (10%) of the shares that are issued and outstanding at the time awards are made under the Plan. On December 10, 2019 and October 27, 2020, the

MaxCyte. Inc.

Notes to Consolidated Condensed Interim Financial Statements (Unaudited)

Company's Board resolved to increase the number of stock options under the Plan by 3,000,000 and 1,500,000, respectively, to provide sufficient shares to allow competitive equity compensation in its primary markets for staff and consistent with practices of comparable companies.

At December 31, 2020 and March 31, 2021 there were 4,175,737 and 4,131,667 awards available to be issued under the Plan, respectively.

A summary of stock option activity for the three months ended March 31, 2021 is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2021	12,864,230	$ 2.11	7.1	$65,576,300
Granted	2,046,856	$14.33		
Exercised	(1,567,086)	$ 1.29		$15,046,300
Forfeited	(1,272,077)	$ 2.96		
Outstanding at March 31, 2021	12,071,923	$ 4.41	7.7	$97,631,700
Exercisable at March 31, 2021	5,732,382	$ 1.95	6.3	$58,324,200

A summary of stock option activity for the three months ended March 31, 2020 is as follows:

	Number of Options	Weighted Average Exercise Price	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value
Outstanding at January 1, 2020	10,299,285	$1.63	7.0	$6,471,500
Granted	2,193,449	$1.71		
Exercised	—	—		
Forfeited	(29,784)	$2.15		
Outstanding at March 31, 2020	12,462,950	$1.56	6.9	$6,402,900
Exercisable at March 31, 2020	7,147,842	$1.13	5.5	$6,320,800

The weighted-average fair value of the options granted during the three months ended March 31, 2021 and March 31, 2020 was estimated to be $7.47 and $0.86.

At March 31, 2021, total unrecognized compensation expense was $20,457,000 which will be recognized over the next 3.4 years.

Stock-based compensation expense for the three months ended March 31, 2021 and 2020 was classified as follows on the consolidated condensed interim statements of operations:

	Three months ended March 31,	
	2021	2020
General and administrative	$ 741,700	$254,000
Sales and marketing	269,200	106,000
Research and development	308,900	187,600
Total	$1,319,800	$547,600

6. Fair Value

The Company's consolidated balance sheets include various financial instruments (primarily cash and cash equivalents, short-term investments, accounts receivable and accounts payable) that are

carried at cost, which approximates fair value due to the short-term nature of the instruments. Notes payable are reflective of fair value based on market comparable instruments with similar terms.

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company has an outstanding warrant originally issued in connection with the November 2019 debt financing (see Note 4) that is accounted for as a liability whose fair value is determined using Level 3 inputs. The following table identifies the carrying amounts of this warrant at December 31, 2020:

	Level 1	Level 2	Level 3	Total
Liabilities				
Liability classified warrant	$—	$—	$441,200	$441,200
Total at December 31, 2020	$—	$—	$441,200	$441,200

The following table identifies the carrying amounts of this warrant at March 31, 2021:

	Level 1 (unaudited)	Level 2 (unaudited)	Level 3 (unaudited)	Total (unaudited)
Liabilities				
Liability classified warrant	$—	$—	$789,100	$789,100
Total at March 31, 2021	$—	$—	$789,100	$789,100

The following table presents the activity for those items measured at fair value on a recurring basis using Level 3 inputs for the year ended December 31, 2020:

	Mark-to-market liabilities — warrant
Balance at December 31, 2019	$ 74,700
Change in fair value	366,500
Balance at December 31, 2020	$441,200

The following table presents the activity for those items measured at fair value on a recurring basis using Level 3 inputs for the three months ended March 31, 2021 and March 31, 2020:

Mark-to-market liabilities — warrant

	March 31, 2021	March 31, 2020
Balance at prior years ended	$441,200	$74,700
Change in fair value	347,900	(200)
Balance at current periods ended	$789,100	$74,500

The gains and losses resulting from the changes in the fair value of the liability classified warrant are classified as other income or expense in the accompanying consolidated condensed interim statements of operations. The fair value of the Common Stock purchase warrants is determined based on the Black-Scholes option pricing model or other option pricing models as appropriate and includes the use of unobservable inputs such as the expected term, anticipated volatility and expected dividends. Changes in any of the assumptions related to such unobservable inputs identified above may change the embedded conversion options' fair value; increases in expected term, anticipated volatility and expected dividends generally result in increases in fair value, while decreases in these unobservable inputs generally result in decreases in fair value.

The Company has no other financial assets or liabilities measured at fair value on a recurring basis.

Financial Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

Money market funds and commercial paper classified as held-to-maturity are measured at fair value on a non-recurring basis when they are deemed to be impaired on an other-than-temporary basis. No such fair value impairment was recognized during the three months ended March 31, 2021 and 2020.

Non-Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company has no non-financial assets and liabilities that are measured at fair value on a recurring basis.

Non-Financial Assets and Liabilities Measured at Fair Value on a Non-Recurring Basis

The Company measures its long-lived assets, including property and equipment, at fair value on a non-recurring basis. These assets are recognized at fair value when they are deemed to be impaired. No such fair value impairment was recognized during the three months ended March 31, 2021 and 2020.

7. Retirement Plan

The Company sponsors a defined-contribution 401(k) retirement plan covering eligible employees. Participating employees may voluntarily contribute up to limits provided by the Internal Revenue Code. The Company matches employee contributions equal to 50% of the salary deferral contributions, with a maximum Company contribution of 3% of the employees' eligible compensation. In the three months ended March 31, 2021 and March 31, 2020, Company matching contributions amounted to $92,900 and $68,600, respectively.

8. Commitments and Contingencies

Operating Leases

From 2009 through September 2019, the Company entered into various new and amended leases for office and laboratory space. A member of the Company's Board of Directors is the CEO and Board member of the lessor of certain of these leases for which the rent payments totaled $158,700 and $154,800 in the three months ended March 31, 2021 and 2020, respectively.

At December 31, 2020, the Company had a $1,728,300 ROU asset, a $572,500 short-term lease liability and $1,234,600 long-term lease liability related to its operating leases. At March 31, 2021, the Company had a $1,591,000 ROU asset, a $589,600 short-term lease liability and $1,080,000 long-term lease liability related to its operating leases.

At December 31, 2020 and March 31, 2021, the weighted average remaining lease term for our operating leases was 2.8 years and 2.6 years, respectively.

Finance Leases

At December 31, 2020, the Company had a $218,300 ROU asset, a $100,000 short-term lease liability included in "Accrued expenses and other" and $142,200 long-term lease liability included in 'Other liabilities' related to its finance lease. At March 31, 2021, the Company had a $194,500 ROU asset, a $101,400 short-term lease liability included in "Accrued expenses and other" and $116,300 long-term lease liability included in 'Other liabilities' related to its finance lease.

MaxCyte. Inc.

Notes to Consolidated Condensed Interim Financial Statements (Unaudited)

All Leases

Lease costs for the three months ended March 31, 2021 and 2020 are as follows:

	Three months ended March 31,	
	2021	2020
Finance lease cost		
Amortization of ROU asset	$ 23,800	$ 11,900
Interest on expense	3,200	2,800
Operating lease cost	172,500	168,600
Short-term lease cost	8,900	—
Variable lease cost	75,600	74,400
Total lease cost	$284,000	$257,700

Maturities of lease liabilities as of March 31, 2021 were as follows:

	Operating Leases (unaudited)	Finance Leases (unaudited)
Remainder of 2021	$ 523,600	$ 83,100
2022	717,400	110,800
2023	614,800	36,900
Total lease payments	1,855,800	230,800
Discount factor	(186,200)	(13,100)
Present value of lease liabilities	$1,669,600	$217,700

9. Subsequent Events

The Company considers events or transactions that occur after the balance sheet date but before the financial statements are issued to provide additional evidence relative to certain estimates or to identify matters that require additional disclosure. Subsequent events were reviewed through the date the consolidated financial statements were available to be issued.

On May 27, 2021, the Company entered into an operating lease for up to 67,326 square feet of new office space. The lease for new office space consists of three phases with Phase 1 estimated to commence in September 2021, and the lease of all phases is estimated to expire on June 30, 2035. The Company and the landlord both have a one-time right to terminate phase 3 of the lease associated with 13,543 square feet during a defined time window. The Company will design and construct the leasehold improvements with the approval of the landlord. The landlord will reimburse the Company for costs of property improvements up to amounts specified in the lease. The total incremental non-cancellable lease payments under the new lease agreements are approximately $24.5 million through the lease terms.

13,500,000 Shares

Common Stock

Joint Book-Running Managers

Cowen **Stifel** **William Blair**

Co-Managers

BTIG **Stephens Inc.**

Through and including August 23, 2021 (the 25th day after the date of this prospectus), all dealers effecting transactions in our common stock, whether or not participating in our initial public offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.