PROSPECTUS

Filed Pursuant to Rule 424(b)(3)
Registration Statement No. 333-278393

1,297,411 Shares of Common Stock

This prospectus relates to the resale by certain of the selling securityholders named in this prospectus (each a "selling securityholder" and, collectively, the "selling securityholders") of 1,297,411 shares of common stock, par value $0.00001 per share (the "Common Stock") issued in the PIPE Financing. This prospectus also covers any additional securities that may become issuable by reason of stock splits, stock dividends or other similar transactions.

We are registering the offer and sale of these securities to satisfy certain registration rights we have granted. We will not receive any of the proceeds from the sale of the securities by the selling securityholders. We will pay the expenses associated with registering the sales by the selling securityholders, as described in more detail in the section titled "*Use of Proceeds*" appearing elsewhere in this prospectus.

The selling securityholders may sell the securities described in this prospectus in a number of different ways and at varying prices. We provide more information about how the selling securityholders may sell their securities in the section titled "*Plan of Distribution*" appearing elsewhere in this prospectus.

The selling securityholders may sell any, all or none of the securities and we do not know when or in what amount the selling securityholders may sell their securities hereunder following the effective date of this registration statement.

Our Common Stock is listed on The Nasdaq Global Select Market ("Nasdaq") under the symbol "LENZ." On April 10, 2024, the last quoted sale price for our Common Stock as reported on Nasdaq was $21.03.

We are an "emerging growth company," as defined under the federal securities laws, and, as such, may elect to comply with certain reduced public company reporting requirements for future filings.

Investing in our securities involves a high degree of risk. Before buying any securities, you should carefully read the discussion of the risks of investing in our securities in the section titled "Risk Factors" beginning on page 6 of this prospectus.

You should rely only on the information contained in this prospectus or any prospectus supplement or amendment hereto. We have not authorized anyone to provide you with different information.

Neither the Securities Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is April 10, 2024.

TABLE OF CONTENTS

You should rely only on the information contained in this prospectus or in any free writing prospectus prepared by us or on our behalf. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus is accurate only as of the date on the front cover of this prospectus. Our business, financial condition, results of operations and prospects may have changed since that date.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-1 that we filed with the Securities and Exchange Commission (the "SEC") using the "shelf" registration process. Under this shelf registration process, the selling securityholders hereunder may, from time to time, sell the securities offered by them described in this prospectus. We will not receive any proceeds from the sale by such selling securityholders of the securities offered by them described in this prospectus.

Neither we nor the selling securityholders have authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus or any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. Neither we nor the selling securityholders take responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. Neither we nor the selling securityholders will make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted.

We may also provide a prospectus supplement or post-effective amendment to the registration statement to add information to, or update or change information contained in, this prospectus. You should read both this prospectus and any applicable prospectus supplement or post-effective amendment to the registration statement together with the additional information to which we refer you in the section of this prospectus titled "*Where You Can Find Additional Information.*"

MARKET AND INDUSTRY DATA

We obtained the industry and market data used throughout this prospectus from our own internal estimates and research, as well as from independent market research, industry and general publications and surveys, governmental agencies, publicly available information and research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, our internal research and our industry experience, and are based on assumptions made by us based on such data and our knowledge of our industry and market, which we believe to be reasonable. In some cases, we do not expressly refer to the sources from which this data is derived. In addition, while we believe the industry and market data included in this prospectus is reliable and based on reasonable assumptions, such data involve material risks and other uncertainties and are subject to change based on various factors, including those discussed in the section entitled "*Risk Factors*." These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties or by us.

TRADEMARKS

This document contains references to trademarks and service marks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus may appear without the ® or TM symbols, but such references are not intended to indicate, in any way, that the applicable licensor will not assert, to the fullest extent under applicable law, its rights to these trademarks and trade names. We do not intend our use or display of other companies' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of it by, any other companies.

PROSPECTUS SUMMARY

This summary highlights information contained in greater detail elsewhere in this prospectus. This summary is not complete and does not contain all of the information you should consider in making your investment decision. You should read the entire prospectus carefully before making an investment in our Common Stock. You should carefully consider, among other things, our consolidated financial statements and the related notes and the sections titled "Risk Factors," "Business," and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this prospectus.

Overview

We are a late-stage biopharmaceutical company focused on developing and commercializing innovative therapies to improve vision. Our initial focus is the treatment of presbyopia, the inevitable loss of near vision that impacts the daily lives of nearly all people over 45. In the United States, the estimated addressable population who suffer from this condition, known as presbyopes, is 128 million, almost four times the number of individuals suffering from dry eye disease and three times the number of individuals suffering from childhood myopia, macular degeneration, diabetic retinopathy and glaucoma combined. We believe that a once-daily pharmacological eye drop that can effectively and safely improve near vision throughout the full workday, without the need for reading glasses, will be a highly attractive commercial product with an estimated U.S. market opportunity in excess of $3 billion. It is our goal to develop and commercialize such a product, and we have assembled an executive team with extensive clinical and commercial experience to execute this goal and become the category leader.

Our lead product candidate LNZ100 is a preservative-free, single-use, once-daily eye drop containing aceclidine. We believe our product candidate is differentiated based on rapid onset, degree and duration of near vision improvement, as well as its ability to be used across the full age range of presbyopes, from their mid-40s to well into their mid-70s, as well as the broadest refractive range. Aceclidine's pupil-selective mechanism of action was demonstrated in our clinical trials where near vision improved while avoiding blurry distance vision. Our product candidate was well-tolerated in clinical trials, and its active ingredient aceclidine has a favorable tolerability profile that have been well-established empirically. LNZ100 has patent protection until 2039 in the United States, at a minimum, due to a robust intellectual property portfolio underpinned by issued patents.

In the safety and efficacy trials ("CLARITY 1 and 2") of our Phase 3 study, LNZ100 achieved the primary endpoints and key secondary endpoints, with statistically significant three-lines or greater improvement in Best Corrected Distance Visual Acuity ("BCDVA") at near, without losing one or more lines in distance visual acuity. In the vehicle-controlled CLARITY 2 trial, the day 1 results showed (all $p<0.0001$):

- **Rapid onset**: 71% achieved three-lines or greater improvement at 30 minutes.
- **Primary endpoint**: 71% achieved three-lines or greater improvement at 3 hours.
- **Long duration**: 40% achieved three-lines or greater improvement at 10 hours.

Near vision improvement was reproducible and consistent across both CLARITY 1 and 2 throughout the four-week study periods.

LNZ100 was well-tolerated with no serious treatment-related adverse events observed in the over 30,000 treatment days including the six-week safety study period in CLARITY 1 and 2 and the six-month period in the CLARITY 3 Phase 3 long-term safety trial (collectively, the "CLARITY study"). For more details, see the section entitled "CLARITY Phase 3 Clinical Trials (the "CLARITY Study")" in this prospectus in the section titled "Business" beginning on page 89.

Our other product candidate LNZ101, a preservative-free eye drop containing aceclidine and brimonidine, showed similar results, including achieving primary and secondary endpoints in both CLARITY 1 and 2, but did not show superiority to LNZ100. Based on these results, we selected LNZ100 as our lead product candidate, for which we plan to submit a New Drug Application ("NDA") to the U.S. Food and Drug Administration ("FDA") in mid-2024 with a launch target date in the second half of 2025. We believe that LNZ100, if approved, could be the

first aceclidine-based product approved by the FDA and would then be eligible for five years of new chemical entity ("NCE") exclusivity in the United States.

It is estimated that there are 1.8 billion presbyopes globally and 128 million presbyopes in the United States. As people age, the crystalline lens in their eyes gradually hardens, resulting in a loss of lens elasticity that reduces the ability of the lens to increase its curvature and refractive power to focus incoming light for near vision onto the retina, known as accommodation. Although the progression of presbyopia is gradual, presbyopes often experience an abrupt change in their daily life as the symptoms become more pronounced starting in their mid-40s, when reading glasses or other corrective aids are suddenly necessary to read text or conduct close-up work. Presbyopia is typically self-diagnosed and self-managed with over-the-counter reading glasses, or managed, after evaluation by an eye care professional (ECP), with prescription reading or bifocal glasses or multifocal contact lenses. Currently, the only approved and marketed pharmaceutical treatment for presbyopia is marketed by AbbVie under the brand Vuity.

Based on data collected in a third-party study commissioned by us in early 2023 that is further described in the section "Market Opportunity" in this prospectus in the section titled "Business" beginning on page 89, we found that presbyopes have high willingness to use a daily prescription eye drop that improves their near vision throughout the full workday. We expect that there will be a wide range of presbyopes that will be interested in using the eye drops at least four times a week. The large initial demand seen for Vuity during its launch in late 2021 and early 2022 corroborates the market demand for a pharmaceutical option for the treatment of presbyopia. However, despite a promising initial launch, Vuity's user uptake has been limited by reportedly lower-than-expected efficacy and duration of effect across users. Additionally, Vuity use is associated with some side effects, including retinal tears and detachments, induced by the stimulation of the ciliary muscle. These limitations on efficacy and safety subsequently resulted in lower than anticipated prescription refill rates and a label amendment reflecting the risk of retinal tears and detachment specifically associated with Vuity. We believe that our once-daily eye drop, if approved, could become the leading brand for presbyopes, by improving near vision throughout the full workday.

Our product candidate LNZ100 is formulated with aceclidine, a miotic, and designed to achieve optimal pupil diameter without impacting distance vision, a key limitation of other miotics. Miotics are compounds that cause pupil constriction, or miosis, creating a pinhole effect that enables better focus of incoming light from near objects onto the retina. Research has shown that a pupil diameter below two millimeters (2 mm) is optimal for presbyopia treatment and results in clinically meaningful improvement in near vision. Unlike other miotics such as pilocarpine and carbachol, aceclidine's mechanism of action is pupil-selective, meaning it can activate the iris sphincter muscle and cause miosis of the pupil to a diameter below 2 mm without overstimulating the ciliary muscles that can cause a myopic shift and impair distance vision. As a result, aceclidine does not require any remaining accommodation to improve near vision, broadening its benefits to older presbyopes whose lens has lost this capacity. Therefore, we expect that users may be able to benefit from treatment even as they age from mid-40s to well into their mid-70s and across a broader range of refractive errors, as demonstrated in clinical testing to date.

While aceclidine is new to the United States, it has a long-established history outside the United States having been approved in Europe since the 1970s for the treatment of glaucoma, and marketed by Merck under the brand Glaucostat, at higher concentrations than in LENZ's product candidates and up to four times a day. Given the known favorable tolerability profile of the active ingredient, which has been used for decades, and the unique mechanism of action of aceclidine, we believe LNZ100 has the potential to treat the broadest population of presbyopes and become the category leader. Based on the positive Phase 3 topline results, we selected LNZ100 as our lead product candidate, for which we plans to submit a New Drug Application (NDA) in mid-2024, with a launch target date in the second half of 2025. If approved, we believe that LNZ100 could be the first aceclidine-based product approved by the U.S. Food and Drug Administration (FDA) and would then be eligible for five years of new chemical entity (NCE) exclusivity in the United States.Given our goal to develop and commercialize the leading, once-daily eye drop for presbyopia that can effectively and safely improve near vision throughout the full workday, we continue to build a robust commercial strategy in the United States to be launch-ready upon expected timing of FDA approval. We retain the flexibility to not only seek commercialization of LNZ100, but to also remain opportunistic in developing, in-licensing or partnering other products or product candidates to further leverage our commercial infrastructure to drive growth and operating leverage. LNZ100 has patent protection until 2039, at a minimum, in the United States due to a robust intellectual property portfolio underpinned by issued patents. As of March 21, 2024, we had at least 18 issued U.S. patents, at least 25 issued patents outside the United States and at least 74 pending

applications globally. If approved, we believe that LNZ100 could be the first FDA-approved aceclidine-based product and would then be eligible for five years of NCE exclusivity in the United States.

To execute our vision, we have assembled a team with extensive experience building successful life science and consumer product companies. Our team has helped launch and commercialize over a dozen ophthalmic products and therapies, including Acuvue, Alphagan P, Combigan, Dailies AquaComfort Plus, Durysta, Latisse, Lumigan, Pred Forte, Refresh, Restasis, Truetear, and Vuity, as well as major consumer-focused brands such as Botox, Herbalife and Ray-Ban. Members of our management team have held senior positions at Alcon, Allergan, Alvotech, Avanir, Bausch + Lomb, Herbalife, Hospira, Johnson & Johnson, Pfenex, Pfizer, VISX and others. We have also engaged a strong team of medical advisors across the ophthalmology and optometry fields. Our team is further supported by a strong group of investors that share our commitment to helping the millions of people experiencing symptoms of presbyopia in the United States and globally.

Our investor relations website is located at https://ir.lenz-tx.com/. We use our investor relations website to post important information for investors, including news releases, analyst presentations, and supplemental financial information, and as a means of disclosing material non-public information and for complying with its disclosure obligations under Regulation FD. Accordingly, investors should monitor our investor relations website, in addition to following press releases, SEC filings and public conference calls and webcasts. We also make available, free of charge, on our investor relations website under "SEC Filings," our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports as soon as reasonably practicable after electronically filing or furnishing those reports to the SEC.

CORPORATE INFORMATION

On March 21, 2024 (the "Closing Date"), LENZ Therapeutics, Inc., a Delaware corporation (previously named Graphite Bio, Inc., a Delaware corporation and our predecessor company ("Graphite")), consummated the previously announced merger pursuant to the terms of the Agreement and Plan of Merger, dated as of November 14, 2023 (the "Merger Agreement"), by and among Graphite, Generate Merger Sub, Inc., a Delaware corporation and wholly-owned subsidiary of Graphite ("Generate Merger Sub") and LENZ Therapeutics Operations, Inc. (previously named Lenz Therapeutics, Inc.), a Delaware corporation ("LENZ OpCo").

Pursuant to the Merger Agreement, on the Closing Date, (i) Graphite effected a reverse stock split of Graphite's issued common stock at a ratio of 1:7, (ii) Graphite changed its name to "LENZ Therapeutics, Inc.", and (iii) Generate Merger Sub merged with and into LENZ OpCo (the "Merger"), with LENZ OpCo as the surviving company in the Merger and, after giving effect to such Merger, LENZ OpCo becoming a wholly-owned subsidiary of LENZ Therapeutics, Inc. (together with its consolidated subsidiary, "New LENZ" or "LENZ"). As of the open of trading on March 22, 2024, the Common Stock of the Company, formerly those of Graphite, began trading on The Nasdaq Global Select Market ("Nasdaq") under the symbol "LENZ."

Our principal executive offices are located at 445 Marine View Ave., Ste. #320, Del Mar, California 92014, and our telephone number is (858) 925-7000.

Our website address is https://lenz-tx.com/. The information on, or that can be accessed through, our website is not part of this prospectus, and you should not consider information contained on our website in deciding whether to purchase shares of our Common Stock. We have included our website address in this prospectus solely as an inactive textual reference.

We use the LENZ logo and other marks as trademarks in the United States and other countries. This prospectus contains references to our trademarks and service marks and to those belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without a trademark symbol, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other entities' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

We are an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). We will remain an emerging growth company until the earliest to occur of: the last day of the fiscal year in which we have more than $1.235 billion in annual revenues; the date we qualify as a "large accelerated filer," with at least $700 million of equity securities held by non-affiliates; the issuance, in any three-year period, by us of more than $1.0 billion in non-convertible debt securities; and the last day of the fiscal year ending after the fifth anniversary of Graphite's initial public offering (i.e., December 31, 2026).

Section 107 of the JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended (the "Securities Act"), for complying with new or revised accounting standards. In other words, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected not to opt out of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of our financial statements with certain other public companies difficult or impossible because of the potential differences in accounting standards used.

Additionally, we are a "smaller reporting company" as defined in Item 10(f)(1) of Regulation S-K. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements. We may continue to be a smaller reporting company in any given year if either (i) the market value of our stock held by non-affiliates is less than $250 million as of June 30th in the most recently completed fiscal year, or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million as of June 30th in the most recently completed fiscal year.

Unless expressly indicated or the context requires otherwise, the terms "LENZ," "New LENZ," the "Company," the "Registrant," "we," "us" and "our" in this prospectus refer to LENZ Therapeutics, Inc., the parent entity formerly named Graphite Bio, Inc., after giving effect to the Merger, and as renamed LENZ Therapeutics, Inc., and where appropriate, our wholly-owned subsidiaries (including LENZ OpCo).

The Offering

Shares of Common Stock Offered Hereunder	We are registering the resale by the selling securityholders named in this prospectus, or their permitted transferees, of an aggregate of 1,297,411 shares of Common Stock issued in the PIPE Financing.
Use of Proceeds	We will not receive any proceeds from the sale of our shares of common stock offered by the selling securityholders under this prospectus (the "Securities"). See the section titled "*Use of Proceeds*" appearing elsewhere in this prospectus for more information.
Common Stock Outstanding	25,534,458 shares of Common Stock as of March 21, 2024.
Risk Factors	See the section titled "*Risk Factors*" and other information included in this prospectus for a discussion of factors that you should consider carefully before deciding to invest in our Common Stock.
Nasdaq symbol	"LENZ" for our Common Stock.

The number of shares of Common Stock outstanding is based on 25,534,458 shares of Common Stock as of March 21, 2024 and excludes the following, in each case as of March 21, 2024:

- 164,676 shares of our Common Stock issuable upon the exercise of warrants to purchase shares of our Common Stock outstanding as of March 21, 2024, with an exercise price of $10.64 per share;
- 1,590,018 shares of our Common Stock issuable upon the exercise of outstanding options under the LENZ OpCo 2020 Equity Incentive Plan (the "2020 Plan"), which were assumed by the Company in connection with the Merger, with a weighted average exercise price of $4.24 per share;
- 15,791 shares of our Common Stock issuable upon the exercise of outstanding options under the LENZ Therapeutics, Inc. (f/k/a Graphite Bio, Inc.) 2020 Stock Option and Grant Plan, with a weighted average exercise price of $1.42 per share;
- 343,068 shares of our Common Stock issuable upon the exercise of outstanding options under the LENZ Therapeutics, Inc. (f/k/a Graphite Bio, Inc.) 2021 Stock Option and Incentive Plan, with a weighted average exercise price of $10.84 per share;
- 1,325,800 shares of our Common Stock issuable upon the exercise of outstanding options under the LENZ Therapeutics, Inc. 2024 Equity Incentive Plan (the "2024 Plan"), with an exercise price of $15.05 per share;
- 1,686,148 shares of our Common Stock reserved for future issuance under our 2024 Plan, as well as any automatic increases in the number of shares of Common Stock reserved for future issuance under this plan; and
- 250,995 shares of our Common Stock reserved for future issuance under our 2024 Employee Stock Purchase Plan (the "2024 ESPP"), as well as any automatic increases in the number of shares of Common Stock reserved for future issuance under this plan.

RISK FACTORS

An investment in our Common Stock involves a high degree of risk. In addition to the risk and uncertainties described under the section titled "Cautionary Note Regarding Forward-Looking Statements," you should consider carefully the risks and uncertainties described below, together with all of the other information contained in this prospectus, including our consolidated financial statements and related notes, before deciding to invest in our Common Stock. If any of the following events occur, our business, financial condition and operating results may be materially adversely affected. In that event, the trading price of our Common Stock could decline, and you could lose all or part of your investment. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business or results of operations.

Summary Risk Factors

Our business is subject to numerous risks and uncertainties that you should consider before investing in our company, as more fully described below. The principal factors and uncertainties that make investing in our company risky include, among others:

- We are a late-stage biopharmaceutical company with limited operating history. We have incurred significant losses and negative cash flows from operations since our formation, and we anticipate that we will continue to incur losses for the foreseeable future. We have no products approved for commercial sale, which may make it difficult for you to evaluate our current business and predict our future success and viability.
- Our business depends entirely on the development and commercialization of LNZ100, and we do not have additional product candidates in our current development pipeline. If we are unable to successfully complete our clinical development program for LNZ100 and obtain the marketing approvals necessary to commercialize LNZ100, or experience significant delays in doing so, or if after obtaining marketing approvals, we fail to commercialize LNZ100, our business will be materially harmed. We currently generate no revenues from sales of any products and may never generate revenue or be profitable.
- Clinical trials are expensive, time-consuming, difficult to design and implement and involve an uncertain outcome. The outcome of preclinical testing and earlier clinical trials may not be predictive of the success of later clinical trials. The results of our clinical trials may not satisfy the requirements of the FDA, EMA or other comparable foreign regulatory authorities, and we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of such product candidate.
- Even if LNZ100 or any other product candidate receives marketing approval, they may fail to achieve market acceptance by ECPs and patients, and the market opportunity for these products, if approved, may be smaller than we estimate.
- If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market our product candidates on acceptable terms, we may be unable to successfully commercialize our product candidates that obtain regulatory approval.
- If we are unable to obtain and maintain sufficient intellectual property protection for our technology and products and product candidates we may develop, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors or other third parties could develop and commercialize products similar or identical to ours, and our ability to successfully develop and, if approved, commercialize our product candidates may be adversely affected.
- We face significant competition, and if our competitors develop and market technologies or products more rapidly than we do or that are more effective, safer or less expensive than the product candidates we develop, our commercial opportunities will be negatively impacted. Our product candidates may, if approved, also face competition from existing branded, generic and off-label products.

- We contract with third parties for the manufacture of our product candidates for our ongoing clinical trials, and expect to continue to do so for additional clinical trials and ultimately for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or drugs or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.
- We have relied, and expect to continue to rely on third parties, including independent clinical investigators and CROs, to conduct, supervise and monitor certain aspects of our clinical trials and any future preclinical studies. If these third parties do not successfully carry out their contractual duties, comply with applicable regulatory requirements or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates, or such approval or commercialization may be delayed, and our business could be substantially harmed.
- Our success is highly dependent on our ability to attract and retain highly skilled executive officers and employees.
- An active trading market for our common stock may never develop or be sustained.
- The market price of our common stock is expected to be volatile, and the market price of the common stock may drop following the Merger.

Risks Related to Our Limited Operating History, Development and Commercialization of Our Product Candidates

We are a late-stage biopharmaceutical company with limited operating history. We have incurred significant losses and negative cash flows from operations since our formation, and we anticipate that we will continue to incur losses for the foreseeable future. We have no products approved for commercial sale, which may make it difficult for you to evaluate our current business and predict our future success and viability.

We are a late-stage biopharmaceutical company with limited operating history. Our operations to date have been limited to organizing the company, raising capital, developing our product candidates and beginning to prepare for commercialization, including building our commercial strategy, supply chain and distribution network. Consequently, any predictions you make about our future success or viability may not be as accurate as they could be if we had a longer operating history. In addition, as a new business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. If LNZ100 is approved by the FDA, we will need to further expand our commercialization infrastructure to successfully launch such product. We have not yet demonstrated our ability to successfully obtain marketing approvals, complete arrangements for third parties to manufacture the commercial-scale product on our behalf, or conduct sales and marketing activities necessary for successful product commercialization, and we may not be successful in such a transition.

We do not have any products approved for sale, we have not generated any revenue from the sale of products, we have incurred significant net losses since the company's formation and have funded our operations primarily from the sale and issuance of redeemable convertible preferred stock, and recently the Merger and PIPE Financing. Our net losses were $10.8 million and $70.0 million for the years ended December 31, 2022 and 2023, respectively. As of December 31, 2023, we had an accumulated deficit of $95.2 million. Additionally, the net losses we incur may fluctuate significantly from quarter to quarter such that a period-to-period comparison of our results of operations may not be a good indicator of our future performance. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue.

We expect to continue incurring significant expenses and increasing operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if and as we:

- initiate additional clinical and other studies for our product candidates;
- change or add additional manufacturers or suppliers, some of which may require additional permits or other governmental approvals;

- create additional infrastructure to support our operations as a public company and our product development and planned future commercialization efforts;
- seek marketing approvals for our product candidates;
- establish a sales, marketing, and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- seek to identify, acquire, and develop additional product candidates;
- acquire or in-license other product candidates and technologies;
- make milestone or other payments in connection with the development or approval of our product candidates;
- maintain, protect, and expand our intellectual property portfolio; and
- experience any delays or encounter issues with any of the above.

Our prior losses and expected future losses have had and will continue to have an adverse effect on our working capital and ability to achieve and maintain profitability.

Our business depends entirely on the development and commercialization of LNZ100, and we do not have additional product candidates in our current development pipeline. If we are unable to successfully complete our clinical development program for LNZ100 and obtain the marketing approvals necessary to commercialize LNZ100, or experience significant delays in doing so, or if after obtaining marketing approvals, we fail to commercialize LNZ100, our business will be materially harmed. We currently generate no revenues from sales of any products and may never generate revenue or be profitable.

We have devoted a significant portion of our financial resources and business efforts to the development of LNZ100 and LNZ101, both of which include aceclidine as an active ingredient, for the treatment of presbyopia. Based on the results of our Phase 3 CLARITY trials, we selected LNZ100 as our lead product candidate, for which we plan to submit a New Drug Application ("NDA") in mid-2024. We do not currently have other product candidates in our development pipeline, and our success depends entirely on LNZ100. We have no products approved for commercial sale and do not anticipate generating any revenue unless LNZ100 receives the regulatory approval necessary for commercialization. Our ability to generate revenues from product sales will depend on us obtaining marketing approval for and commercializing LNZ100, and we cannot accurately predict when or if LNZ100 will be determined by the Food and Drug Administration ("FDA") to be effective in humans for the proposed indication or whether it will receive marketing approval. Our ability to generate revenue and achieve profitability also depends significantly on our ability, or any future collaborator's ability, to achieve a number of objectives, including:

- successful and timely completion of clinical development of LNZ100 and any other future product candidates;
- effective investigational new drug applications ("INDs") from the FDA or comparable foreign applications that allow the commencement of our clinical trials or future clinical trials for such product candidates;
- completion of clinical studies in compliance with the FDA's current Good Clinical Practices ("GCPs") with positive results;
- the prevalence and severity of adverse events experienced with any of our product candidates;
- establishing and maintaining relationships with contract research organizations ("CROs") and clinical sites for the clinical development, both in the United States and internationally, of our product candidates, including LNZ100 and any other future product candidates;

- timely receipt of marketing approvals from applicable regulatory authorities for any product candidates for which we successfully complete clinical development for their intended uses;
- making any required post-marketing approval commitments to applicable regulatory authorities;
- establishing and maintaining commercially viable supply and manufacturing relationships with third parties that can provide adequate products and services, in both amount and quality, to support clinical development and meet the market demand for product candidates that we develop, if approved;
- successful commercial launch following any marketing approval, including the development of a commercial infrastructure, whether in-house or with one or more collaborators;
- maintaining compliance with regulatory requirements, including the FDA's current Good Manufacturing Practice ("cGMP") requirements;
- a continued acceptable safety profile both prior to and following any marketing approval of our product candidates;
- commercial acceptance of our product candidates by patients and the medical community;
- identifying, assessing and developing new product candidates;
- obtaining, maintaining and expanding patent protection, trade secret protection and regulatory exclusivity, both in the United States and internationally;
- protecting our rights in our intellectual property portfolio;
- defending against third-party interference or infringement claims, if any;
- obtaining favorable terms in any collaboration, licensing or other arrangements that may be necessary or desirable to develop, manufacture or commercialize our existing or acquired product candidates;
- addressing any competing therapies and technological and market developments; and
- attracting, hiring and retaining qualified personnel.

We may never be successful in achieving our objectives and, even if we are successful, we may never generate revenue that is significant or large enough to achieve profitability. If we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. If we fail to become and remain profitable, the value of our company could decrease. This could impair our ability to maintain or expand our research and development efforts, raise necessary additional capital, grow our business, and continue our operations.

Our current product candidate, LNZ100, is based on an active pharmaceutical ingredient ("API") that has been previously approved and marketed outside of the United States, which exposes us to additional risks.

The API in LNZ100, aceclidine, was previously approved by the European Medicines Agency ("EMA") as a therapeutic for glaucoma by decreasing interocular pressure and had been marketed in more than 12 countries throughout Europe. Although we expect to obtain new chemical entity ("NCE") exclusivity in the United States if we are the first to obtain FDA approval of a product candidate containing aceclidine as an API, such determination is only made at the time of approval. Accordingly, no regulatory authority, including the FDA, has established or provided any confirmation that our product candidate will in fact be regarded as an NCE, and there can be no assurance that LNZ100 will be the first product containing aceclidine to be approved by the FDA.

Additionally, we anticipate that manufacturers in Europe could make and sell aceclidine in generic form in the future, which could compete with our ability to commercialize in Europe. Previously, aceclidine was used as a treatment for glaucoma at concentrations higher than the concentrations used in LNZ100. It is possible that if aceclidine is used again in Europe, it could be used at the wrong dosage and increase the possibility that patients experience adverse side effects related to aceclidine. Any adverse side effects that arise from the use of any form of

aceclidine could prevent or inhibit the commercialization of LNZ100 and seriously harm our business. Furthermore, if manufacturer demand for aceclidine increases in the future, particularly as a result of generic forms of aceclidine becoming available, we may not be able to continue to obtain aceclidine on commercially reasonable terms, which would seriously harm our business.

In addition, any approved or commercial drug product having the same API, including off-label use of such approved drug products, such as Glaucostat and other generic forms of the API, could reduce the profitability of LNZ100 even if we obtain marketing approval from FDA or regulatory authorities outside of the United States. Any commercially available drug product having the same API could prevent us from or limit our ability to commercialize or to establish market share in the same jurisdiction even if we were to obtain marketing authorization in such jurisdiction.

Clinical trials are expensive, time-consuming, difficult to design and implement and involve an uncertain outcome. The outcome of preclinical testing and earlier clinical trials may not be predictive of the success of later clinical trials. The results of our clinical trials may not satisfy the requirements of the FDA, EMA or other comparable foreign regulatory authorities, and we may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of such product candidate.

Research and development of pharmaceutical products is inherently risky. We cannot give any assurance that any of our product candidates will receive regulatory, including marketing, approval, which is necessary before they can be commercialized. The clinical trials and manufacturing of our product candidates are, and the manufacturing and marketing of our products, if approved, will be, subject to extensive and rigorous review and regulation by numerous government authorities in the United States and in other countries where we intend to test and market our product candidates. Before obtaining regulatory approvals for the commercial sale of any of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical studies and clinical trials that our product candidates are both safe and effective for use in each target indication. Product candidates in later stages of clinical trials may fail to show the desired safety, efficacy and durability profile despite having progressed through preclinical studies and initial clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or unacceptable safety issues, notwithstanding promising results in earlier trials. Most product candidates that begin clinical trials are never approved by regulatory authorities for commercialization.

Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. Failure can occur at any time during the clinical trial process. Even if our ongoing and any future clinical trials are completed as planned, we cannot be certain that our results will support the safety and effectiveness of our product candidates for their targeted indications or support continued clinical development of such product candidates. Product candidates in later stages of clinical studies may fail to show the desired safety and efficacy data or meet endpoints despite having progressed through preclinical and clinical studies.

The results of our preclinical and clinical studies of product candidates may not be predictive of the results of early-stage or later-stage clinical trials, and results of early clinical trials of our product candidates may not be predictive of the results of later-stage clinical trials. The results of clinical trials in one set of subjects may not be predictive of those obtained in another. In some instances, there can be significant variability in safety, efficacy or durability results between different clinical trials of the same product candidate due to numerous factors, including changes in trial procedures set forth in protocols, differences in the size and type of the patient populations, changes in and adherence to the dosing regimen and other clinical trial protocols and the rate of dropout among clinical trial participants.

In addition, even if such clinical trials are successfully completed, we cannot guarantee that the FDA or foreign regulatory authorities will interpret the results as we do, and more trials could be required before we submit our product candidates for approval. For example, although we have sought and received feedback from FDA on the designs of our clinical trials, FDA may ultimately disagree that our Phase 3 trials support approval for LNZ100. Moreover, results acceptable to support approval in one jurisdiction may be deemed inadequate by another regulatory authority to support regulatory approval in that other jurisdiction. To the extent that the results of the

trials are not satisfactory to the FDA or foreign regulatory authorities for support of a marketing application, we may be required to expend significant resources, which may not be available, to conduct additional trials in support of potential approval of LNZ100 or any future product candidates. Even if we secure regulatory approval for any of our product candidates, the terms of such approval may limit the scope and use of the product candidate, which may also limit its commercial potential.

We may also experience issues in conducting our clinical trials that would delay or prevent us from satisfying the applicable requirements of the FDA and other regulatory authorities, including:

- inability to generate sufficient preclinical, toxicology, or other in vivo or in vitro data to support the initiation of clinical trials for any future product candidates;
- delays in sufficiently developing, characterizing or controlling a manufacturing process suitable for advanced clinical trials;
- delays in reaching agreement with the FDA or other regulatory authorities as to the design or implementation of our clinical trials;
- obtaining regulatory authorization to commence a clinical trial;
- delays in reaching, or failure to reach, agreement on acceptable terms with clinical trial sites or prospective CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different clinical trial sites;
- obtaining institutional review board ("IRB") approval at each trial site;
- recruiting suitable patients to participate in a clinical trial;
- having patients complete a clinical trial or return for post-treatment follow-up;
- inspections of clinical trial sites or operations by applicable regulatory authorities, or the imposition of a clinical hold;
- clinical sites, CROs or other third parties deviating from trial protocol or dropping out of a trial;
- failure to perform in accordance with applicable regulatory requirements, including the FDA's GCP requirements, or applicable regulatory requirements in other countries;
- addressing patient safety concerns that arise during the course of a trial, including occurrence of adverse events associated with the product candidate that are viewed to outweigh its potential benefits;
- adding a sufficient number of clinical trial sites;
- manufacturing sufficient quantities of product candidate for use in clinical trials; or
- suspensions or terminations by IRBs of the institutions at which such trials are being conducted, by the Data Safety Monitoring Board ("DSMB"), for such trial or by the FDA or other regulatory authorities due to a number of factors, including those described above.

While we have completed our Phase 3 CLARITY trials, we may experience numerous unforeseen events during, or as a result of, any future clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates or significantly increase the cost of such trials, including:

- changes in regulatory requirements or guidance, or receiving feedback from regulatory authorities, that requires us to modify the design of our clinical trials;
- clinical trials of our product candidates may produce negative or inconclusive results, and we may decide, or regulators may require us, to conduct additional clinical trials or abandon development programs;

- the number of patients required for clinical trials of our product candidates may be larger than we anticipate, enrollment in these clinical trials may be slower than we anticipate or participants may drop out of these clinical trials at a higher rate than we anticipate;
- third-party contractors may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we or our investigators might have to suspend or terminate clinical trials of our product candidates for various reasons, including non-compliance with regulatory requirements, a finding that our product candidates have undesirable side effects or other unexpected characteristics, or a finding that the participants are being exposed to unacceptable health risks;
- the cost of clinical trials of our product candidates may be greater than we anticipate and we may not have funds to cover the costs;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate;
- regulators may revise the requirements for approving our product candidates, or such requirements may not be as we anticipate; and
- any future collaborators that conduct clinical trials may face any of the above issues, and may conduct clinical trials in ways they view as advantageous to them but that are suboptimal for us.

If we are required to conduct additional clinical trials or other testing of LNZ100 beyond our Phase 3 CLARITY trials, if we are unable to successfully complete clinical trials of any future product candidates or other testing, if the results of these trials or tests are not positive or are only modestly positive or if there are safety concerns, we may:

- incur unplanned costs;
- be delayed in obtaining marketing approval for LNZ100 or any future product candidates or not obtain marketing approval at all;
- obtain marketing approval in some countries and not in others;
- obtain marketing approval for indications or patient populations that are not as broad as intended or desired;
- obtain marketing approval with labeling that includes significant use or distribution restrictions or safety warnings, including boxed warnings or a Risk Evaluation Mitigation Strategy (“REMS”);
- be subject to additional post-marketing testing requirements;
- be subject to changes in the way the product is administered; or
- have regulatory authorities withdraw or suspend their approval of the product.

We cannot be certain that any future clinical trials will be successful. For example, use of LNZ100 requires the patient to follow a prescribed technique to administer the eye drops. In our Phase 2 clinical trial, patients were dosed by clinical staff in the office while in our Phase 3 clinical trials the product was self-administered by patients on the vast majority of days. While under our current trial design patients are only measured for efficacy on days they are in the office during the trial, during which they will be dosed by clinical staff, failure to properly administer the eye drops by the patient or inappropriate technique demonstration by the eye care professional (“ECP”), may adversely affect the outcome of LNZ100 in demonstrating safety or efficacy in one or more clinical trials. Additionally, any safety concerns observed in any one of our clinical trials in our targeted indications could limit the prospects for regulatory approval of our product candidates in those and other indications, which could have a material adverse effect on our business, financial condition and results of operations.

Even if LNZ100 or any other product candidate receives marketing approval, they may fail to achieve market acceptance by ECPs and patients, and the market opportunity for these products, if approved, may be smaller than we estimate.

If LNZ100 or any other product candidate we develop receives marketing approval, they may nonetheless fail to gain sufficient market acceptance by ECPs, patients, and others in the medical community. Presbyopia is typically self-diagnosed and self-managed with over-the-counter reading glasses, or managed, after evaluation by an ECP, with prescription reading or bifocal glasses or multifocal contact lenses. LNZ100, if approved, would require a prescription by an ECP, which would require a visit to an ECP, which can be perceived to be more burdensome to an individual who has never previously visited an ECP and limit the number of prescriptions that are written. Some ECPs may also be deterred by the potential loss of revenue from the sale of contact lenses and glasses or feel uncomfortable prescribing a new product.

Currently, there is only one pharmacologic option for presbyopia marketed by AbbVie under the brand Vuity. Despite an initial strong commercial launch with over 120,000 prescriptions filled in 2022, the refill rate for Vuity has lagged due to a variety of reasons. Based on a survey of 40 ECPs in a study we commissioned, the majority of ECPs reported that the barrier to Vuity adoption was that the product either did not work or did not work long enough.

An additional survey of 18 optometrists indicated that 66% of their patients did not see duration past four hours despite one of the Vuity clinical trial results showing some effectiveness to the sixth hour. While the reported patient experience at three hours post-treatment aligns with the primary endpoint of Vuity efficacy at three hours in both Phase 3 trials, the limited functional benefit of Vuity at and beyond three hours was reportedly not sufficient to drive continued usage by patients. In fact, the ECPs and their patients identified both the low rate of effectiveness and the short duration of effectiveness as the key factors for discontinuing use. Because Vuity's clinical success did not translate to commercial success, it is possible that prior users of Vuity may be reluctant to try another miotic as a result of their negative experiences with Vuity. Similarly, even if we believe that the clinical data supporting LNZ100 may offer advantages over Vuity, the products have not been evaluated head-to-head, and LNZ100 may not, in fact, provide meaningful advantages resulting in greater adoption or acceptance by ECPs and patients, even if LNZ100 obtains marketing authorization.

Additionally, Vuity is marketed by AbbVie, a much larger pharmaceutical company with established brand recognition. As a result, even if LNZ100 demonstrates promising or superior clinical results, including the treatment of presbyopia, it is possible that ECPs may continue to rely on these treatments rather than LNZ100 or any other product candidate we develop, even if approved for marketing by the FDA. In addition, if generic versions of any products that compete with any of our product candidates are approved for marketing by the FDA, they would likely be offered at a substantially lower price than we expect to offer for our product candidates, if approved. As a result, ECPs, patients and others may choose to rely on such products rather than our product candidates.

If LNZ100 or any other product candidate does not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of LNZ100 or any other product candidate that we develop, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and potential advantages of our product candidates compared to alternative treatments, including the existing standard of care;
- our ability to offer products for sale at competitive prices, particularly in light of the lower cost of alternative treatments;
- the clinical indications for which the product is approved;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of ECPs to prescribe these therapies;

- the strength of our marketing and distribution support;
- the timing of market introduction of competitive products;
- the potential for our competitors to limit our access to the market through anti-competitive contracts or other arrangements;
- the prevalence and severity of any side effects; and
- any restrictions on the use of our products together with other medications.

Our assessment of the potential market opportunity for LNZ100 and other product candidates is based on industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties, some of which we commissioned. Industry publications and third-party research, surveys and studies generally indicate that our information has been obtained from sources believed to be reliable, although we do not guarantee the accuracy or completeness of such information. Our estimates of the potential market opportunities for our product candidates include several key assumptions based on our industry knowledge, industry publications, third-party research and other surveys, which may be based on a small sample size and fail to accurately reflect market opportunities. Further, we have commissioned a number of market studies that are specific to us and to our product candidates and used the results of these studies to help assess our market opportunity. If any of our assumptions or estimates, or these publications, research, surveys or studies prove to be inaccurate, then the actual market for LNZ100 or any other product candidates we may develop may be smaller than we expect, and as a result our product revenue may be limited and we may be more difficult for us to achieve or maintain profitability.

Interim, initial, "top-line" and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publicly disclose interim, preliminary or top-line data from our preclinical studies and clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available or as patients from our clinical trials continue other treatments for their condition. Preliminary or top-line data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim, preliminary and top-line data should be viewed with caution until the final data are available. We also make assumptions, estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. As a result, the top-line or preliminary results that we report may differ from future results of the same studies or trials, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular product candidate or product and could have a material adverse effect on the success of our business. In addition, the information we choose to publicly disclose regarding a particular study or clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is material or otherwise appropriate information to include in our disclosure. If the interim, top-line or preliminary data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, our product candidates may be harmed, which could harm our business, results of operations, prospects or financial condition. Further, disclosure of interim, top-line or preliminary data by us or by our competitors could result in volatility in the price of our common stock.

If we experience delays or difficulties in the enrollment and/or retention of subjects in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

Trials may be subject to delays as a result of patient enrollment taking longer than anticipated or patient withdrawal. While we have completed our three Phase 3 clinical trials for LNZ100, if we are required to conduct additional trials, we may not be able to initiate or continue such clinical trials if we are unable to locate and enroll a sufficient number of subjects to participate in these trials to such trial's conclusion as required by the FDA, EMA or other comparable foreign regulatory authorities. Patient enrollment is a significant factor in the timing of clinical trials.

Patient enrollment may be affected if our competitors have ongoing clinical trials for product candidates that are under development for the same indications as our product candidates, and subjects who would otherwise be eligible for our clinical trials instead enroll in clinical trials of our competitors' product candidates. Patient enrollment for any of our future clinical trials may be affected by other factors, including:

- size and nature of the patient population, and process for identifying patients;
- severity and difficulty of diagnosing the condition under investigation;
- availability and efficacy of approved drugs and other competing therapeutic candidates for the condition under investigation;
- the eligibility and exclusion criteria for the trial in question as defined in the protocol;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- the design of the clinical trial;
- perceived risks and benefits of the product candidate under study;
- ECPs' and participants' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new products that may be approved for the indications we are investigating;
- efforts to facilitate timely enrollment in clinical trials;
- participant referral practices of ECPs;
- our ability to monitor participants adequately during and after treatment;
- proximity and availability of clinical trial sites for prospective trial subjects;
- continued enrollment of prospective subjects by clinical trial sites; and
- the risk that subjects enrolled in clinical trials will drop out of the trials before completion.

Our inability to enroll a sufficient number of subjects for our clinical trials would result in significant delays or may require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidates and jeopardize our ability to obtain marketing approval for the sale of our product candidates. Furthermore, we expect to rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and we will have limited influence over their performance. Even if we are able to enroll a sufficient number of subjects for our clinical trials, we may have difficulty maintaining enrollment of such subjects in our clinical trials.

Changes in methods of product candidate manufacturing or formulation may result in additional costs or delay.

As product candidates progress through preclinical and clinical trials to marketing approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods

and formulation, are altered along the way in an effort to optimize yield and manufacturing batch size, minimize costs and achieve consistent quality and results. Such changes carry the risk that they will not achieve these intended objectives. Any of these changes could cause our product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials conducted with the altered materials. This could delay completion of clinical trials, require the conduct of bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay approval of product candidates and jeopardize our ability to commercialize our product candidates, if approved, and generate revenue.

We face significant competition, and if our competitors develop and market technologies or products more rapidly than we do or that are more effective, safer or less expensive than the product candidates we develop, our commercial opportunities will be negatively impacted. Our product candidates may, if approved, also face competition from existing branded, generic and off-label products.

The development and commercialization of new drug products is highly competitive. We face competition with respect to LNZ100 and will face competition with respect to any other product candidates that we may seek to develop or commercialize in the future from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. As LNZ100 is for the treatment of presbyopia, we may face competition from a variety of companies developing or marketing other pharmaceutical presbyopia therapies, including AbbVie (formerly Allergan), Bausch & Lomb, Eyenovia, Glaukos, Johnson & Johnson, Orasis, OSRX Pharmaceuticals (an affiliate of Ocular Science), Viatris (through licensing of Ocuphire's presbyopia products), Visus Therapeutics and Vyluma. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

Presbyopia is typically self-diagnosed and self-managed with over-the-counter reading glasses, or managed, after evaluation by an ECP, with prescription reading or bifocal glasses or multifocal contact lenses. LNZ100, if approved, would require a prescription by an ECP, which would require a visit to an ECP, which can be perceived to be more burdensome to an individual who has never previously visited an ECP and limit the number of prescriptions that are written. Some ECPs may also be deterred by the potential loss of revenue from the sale of contact lenses and glasses or feel uncomfortable prescribing a new product.

LNZ100 may not demonstrate sufficient additional clinical benefits to ECPs, patients or payors to justify a higher price compared to using glasses, which are potentially just a one-time purchase.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than LNZ100, if approved, or any other products we develop that are approved. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for LNZ100 or any other products, which could result in our competitors establishing a strong market position before we are able to enter the market.

Many of the companies against which we are competing or against which we may compete in the future have substantially greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

If we are unable to establish sales and marketing capabilities or enter into agreements with third parties to sell and market our product candidates on acceptable terms, we may be unable to successfully commercialize our product candidates that obtain regulatory approval.

We plan to use the proceeds of the Merger and the PIPE Financing, in part, to continue to build the sales and marketing infrastructure required to successfully commercialize LNZ100, subject to FDA approval. As of March 21, 2024, we have substantially completed hiring of all senior leadership roles in the commercial team, including adding industry veterans with extensive experience in the pharmaceutical space. We plan to launch with our own sales organization in the United States, which we envision expanding to a substantially larger number of individuals, focused on partnering with ECPs, while also deploying, in parallel, a highly targeted consumer strategy. In order to achieve these commercialization goals for LNZ100, if approved, we must build marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services for each of the territories in which we may have approval to sell and market LNZ100. We may not be successful in accomplishing these required tasks.

Establishing and building out an internal sales and marketing team with technical expertise and supporting distribution capabilities to commercialize LNZ100, if approved, will be expensive and time-consuming and will require significant attention of our executive officers to manage. Any failure or delay in the development of our internal sales, marketing and distribution capabilities could adversely impact the commercialization of LNZ100 or any other product candidates that we obtain approval to market, if we do not have arrangements in place with third parties to provide such services on our behalf. Alternatively, if we choose to collaborate, either globally or on a territory-by-territory basis, with third parties that have direct sales forces and established distribution systems, either to augment our own sales force and distribution systems or in lieu of our own sales force and distribution systems, we will be required to negotiate and enter into arrangements with such third parties relating to the proposed collaboration. If we are unable to enter into such arrangements when needed, on acceptable terms, or at all, we may not be able to successfully commercialize LNZ100 or any other product candidates that receive regulatory approval, or any such commercialization may experience delays or limitations. If we are unable to successfully commercialize our approved product candidates, either on our own or through collaborations with one or more third parties, our future product revenue will suffer, and we may incur significant additional losses.

Our commercial strategy is focused on targeting and partnering with the estimated 15,000 ECPs that prescribed over 85% of the pharmaceutical presbyopia prescriptions in the United States in 2022. If we are unable to obtain access to these ECPs or successfully demonstrate the clinical benefits of our products to adequate numbers of ECPs, if approved, our efforts to commercialize such products will be severely inhibited, which would have a material adverse effect on our business.

Additionally, a direct-to-consumer ("DTC") strategy can potentially be extremely costly. We intend to deploy a targeted, cost-effective, digitally focused DTC strategy, but if we are unable to be sufficiently effective with a limited budget and are required to spend more than anticipated, we may need to raise more capital, divert resources from other strategies or just fail to reach the intended market. As a result, a DTC strategy that is not sufficiently cost-effective can have a material adverse effect on our business.

We may need to raise additional financing in the future to fund our operations, which may not be available to us on favorable terms or at all.

We may require additional funds to pursue regulatory approval of LNZ100 and any future product candidates and to continue the development of LNZ100 and any future product candidates. Our future capital requirements will depend upon a number of factors, including: the number and timing of future product candidates in the pipeline; progress with and results from preclinical testing and clinical trials; the ability to manufacture sufficient drug supplies to complete preclinical and clinical trials; the costs involved in preparing, filing, acquiring, prosecuting, maintaining and enforcing patent and other intellectual property claims; and the time and costs involved in obtaining regulatory approvals and favorable reimbursement or formulary acceptance. Raising additional capital may be costly or difficult to obtain and could, for example, through the sale of common stock or securities convertible or exchangeable into common stock, significantly dilute our stockholders' ownership interests or inhibit our ability to achieve our business objectives. If we raise additional funds through public or private equity offerings, the terms of

these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. In addition, any debt financing may subject us to fixed payment obligations and covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional capital through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish certain valuable intellectual property or other rights to our product candidates, technologies, future revenue streams or research programs, or grant licenses on terms that may not be favorable to us. Even if we were to obtain funding, there can be no assurance that it will be available on terms acceptable to us or our stockholders.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our products, if approved.

Our business exposes us to significant product liability risks inherent in the development, testing, manufacturing and marketing of therapeutic treatments. Product liability claims could delay or prevent completion of our development programs. If LNZ100 or any future product candidates are approved for marketing, such claims could still result in an FDA, EMA or other regulatory authority investigation of the safety and effectiveness of such products, our manufacturing processes and facilities or our marketing programs. These investigations could potentially lead to a recall of our products or more serious enforcement action, limitations on the approved indications for which they may be used or suspension or withdrawal of approvals. Regardless of the merits or eventual outcome, liability claims may also result in injury to our reputation, withdrawal of clinical trial participants, costs to defend the related litigation, a diversion of management's time and our resources, initiation of investigations by regulators, substantial monetary awards to patients or other claimants, the inability to commercialize our product candidates and decreased demand for our product candidates, if approved for commercial sale. We currently have product liability insurance that we believe is appropriate for our stage of development and may need to obtain higher levels prior to marketing LNZ100, if approved. Any insurance we have or may obtain may not provide sufficient coverage against potential liabilities and, if judgments exceed our insurance coverage, could adversely affect our results of operations and business and cause our stock price to decline. Furthermore, clinical trial and product liability insurance is becoming increasingly expensive. As a result, we may be unable to maintain or obtain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses, including those caused by product liability claims.

A variety of risks associated with marketing our product candidates internationally could materially adversely affect our business.

We are developing regulatory strategies for LNZ100 outside the United States and, accordingly, we expect that we or our partners would seek regulatory approval of our product candidates outside of the United States. As such, we expect that we will be subject to additional risks related to operating in foreign countries if we or such partners obtain the necessary approvals, including:

- differing regulatory requirements and drug pricing regimes in foreign countries;
- potential issues due to aceclidine having been previously marketed and sold in Europe as a treatment for glaucoma, including, but not limited to potential competition from or for manufacturers and suppliers, and potential assumptions, concerns or biases resulting from the limited efficacy of the prior marketed products;
- unexpected changes in tariffs, trade barriers, price and exchange controls and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;

- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential liability under the U.S. Foreign Corrupt Practices Act ("FCPA") or comparable foreign regulations;
- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geopolitical actions, including war and terrorism.

These and other risks associated with our international operations or those of any applicable international partners may materially adversely affect our ability to attain or maintain profitable operations.

In particular, there is currently significant uncertainty about the future relationship between the United States and various other countries, most significantly China, with respect to trade policies, treaties, tariffs, taxes, and other limitations on cross-border operations. The U.S. government has made and continues to make significant additional changes in U.S. trade policy and may continue to take future actions that could negatively impact U.S. trade. For example, legislation has been introduced in Congress to limit certain U.S. biotechnology companies from using equipment or services produced or provided by select Chinese biotechnology companies, and others in Congress have advocated for the use of existing executive branch authorities to limit those Chinese service providers' ability to engage in business in the U.S. We cannot predict what actions may ultimately be taken with respect to trade relations between the United States and China or other countries, what products and services may be subject to such actions or what actions may be taken by the other countries in retaliation. If we are unable to obtain or use services from existing service providers or become unable to export or sell our products to any of our customers or service providers, our business, liquidity, financial condition, and/or results of operations would be materially and adversely affected.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain sufficient intellectual property protection for our technology and products and product candidates we may develop, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors or other third parties could develop and commercialize products similar or identical to ours, and our ability to successfully develop and, if approved, commercialize our product candidates may be adversely affected.

We rely upon a combination of patents, trademarks, trade secret protection, and confidentiality agreements to protect the intellectual property related to our development programs and product candidates. Our success depends in part on our ability to obtain and maintain patent protection in the United States and other countries with respect to LNZ100 or any future product candidates. If we are unable to obtain or maintain patent protection with respect to LNZ100 or any future product candidates, and their uses, our business, financial condition, resultant operations and prospects could be materially harmed.

We generally seek to protect our proprietary position by filing patent applications in the United States and abroad related to LNZ100, any of our future product candidates, our development programs, product candidates and novel discoveries that are important to our business, as appropriate. Our pending and future patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless, and until, patents issue from such applications, and then only to the extent the issued claims cover the technology. There can be no assurance that our patent applications will result in patents being issued or that issued patents will afford sufficient protection against competitors with similar technology, nor can there be any assurance that the patents issued will not be infringed, designed around or invalidated by third parties, including generics. The patent

prosecution process is expensive and time-consuming, and we may not be able to file, prosecute, enforce or license all necessary or desirable patent applications at a reasonable cost or in a timely manner.

The patents and patent applications that we own may fail to result in issued patents with claims that protect LNZ100 or any future product candidate in the United States or in other foreign countries. There is no assurance that all of the potentially relevant prior art relating to our patents and patent applications has been found, which can prevent a patent from issuing from a pending patent application, or be used to invalidate a patent. Even if patents do successfully issue and even if such patents cover LNZ100 or any future product candidate, third parties may challenge their validity, enforceability or scope, which may result in such patents being narrowed, invalidated or held unenforceable. Any successful opposition to these patents or any other patents owned by or licensed to us could deprive us of rights necessary for the successful commercialization of any product candidates that we may develop. Further, the scope and coverage of such patents may be so narrow that a third party could successfully design around our patents without materially impacting the therapeutic effectiveness of the resulting drug product. Further, if we encounter delays in regulatory approvals, the period of time during which we could market a product candidate under patent protection could be reduced.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or any of our potential future collaborators will be successful in protecting our product candidates by obtaining and defending patents. These risks and uncertainties include the following:

- the USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process, the noncompliance with which can result in abandonment or lapse of a patent or patent application, and partial or complete loss of patent rights in the relevant jurisdiction;
- the USPTO requires us to disclose all material references to the Patent Examiner during prosecution of our patent applications at the USPTO, and failure to do so could result in a third party successfully challenging our ability to enforce a patent against an infringer;
- patent applications may not result in any patents being issued;
- granted patents may not have a claim scope that covers LNZ100 or any future product candidates;
- patents may be challenged, invalidated, modified, revoked, circumvented, found to be unenforceable or otherwise may not provide any competitive advantage;
- our competitors, many of whom have substantially greater resources than we do and many of whom have made significant investments in competing technologies, may seek or may have already obtained patents that will limit, interfere with or block our ability to make, use and sell our product candidates;
- there may be significant pressure on the U.S. government and international governmental bodies to limit the scope of patent protection both inside and outside the United States for treatments of diseases or conditions that prove successful, as a matter of public policy regarding worldwide health concerns; and
- countries other than the United States may have patent laws less favorable to patentees than those upheld by U.S. courts, allowing foreign competitors a better opportunity to create, develop and market competing products.

The patent prosecution process is also expensive and time-consuming, and we may not be able to file, prosecute, maintain, enforce or license all necessary or desirable patent applications or maintain and/or enforce patents that may issue based on our patent applications, at a reasonable cost or in a timely manner or in all jurisdictions where protection may be commercially advantageous. We may not be able to obtain or maintain patent applications and patents due to the subject matter claimed in such patent applications and patents being in disclosures in the public domain. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, if we choose to license certain patent rights in the future from third parties, we may not have the right to control the preparation, filing, and prosecution of

such patent applications, or to maintain the patents, directed to technology that we license from those third parties. We may also require the cooperation of our future licensor, if any, in order to enforce the licensed patent rights, and such cooperation may not be provided. Therefore, any licensed patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. We cannot be certain that patent prosecution and maintenance activities by any of our future licensors have been or will be conducted in compliance with applicable laws and regulations, which may affect the validity and enforceability of such patents or any patents that may issue from such applications. If they fail to do so, this could cause us to lose rights in any applicable intellectual property that we in-license, and as a result our ability to develop and commercialize products or product candidates may be adversely affected and we may be unable to prevent competitors from making, using and selling competing products.

If the patent applications we hold or may in-license in the future with respect to our development programs and product candidates fail to issue, if their breadth or strength of protection is threatened, or if they fail to provide meaningful exclusivity for LNZ100 or any future product candidate, it could dissuade other companies from collaborating with us to develop product candidates, and threaten our ability to commercialize LNZ100 or future product candidates. Any such outcome could have a materially adverse effect on our business.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions, and has been and will continue to be the subject of litigation and new legislation, resulting in court decisions, including Supreme Court decisions, which have increased uncertainties as to the ability to enforce patent rights in the future. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. For example, many countries restrict the patentability of methods of treatment of the human body. Publications in scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot know with certainty whether we were the first to make the inventions claimed in our own patents or pending patent applications, or that we were the first to file for patent protection of such inventions. As a result of these and other factors, the issuance, scope, validity, enforceability, and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products.

Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection. For example, the America Invents Act created new administrative post-grant proceedings, including post-grant review, inter partes review, and derivation proceedings that allow third parties to challenge the validity of issued patents. This applies to all of our U.S. patents, even those issued before March 16, 2013. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in U.S. federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

Moreover, we may be subject to a third-party pre-issuance submission of prior art to the USPTO or become involved in opposition, derivation, reexamination, inter partes review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. The costs of defending patents or enforcing proprietary rights in post-issuance administrative proceedings and litigation can be substantial and the outcome can be uncertain. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and our owned and licensed patents and patent applications may be challenged in the courts or patent offices in the United States and abroad. Even issued patents may later be found invalid or unenforceable or may be modified or revoked in proceedings instituted by third parties before various patent offices or in courts. An adverse decision in any such challenges may result in loss of exclusivity or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. Generally, issued patents are granted a term of 20 years from the earliest claimed non-provisional filing date. In certain instances, patent term can be adjusted to recapture a portion of delay incurred by the USPTO in examining the patent application (patent term adjustment). The scope of patent protection may also be limited.

Without patent protection for our current or future product candidates, we may be open to competition from generic versions of such products. Given the amount of time required for the development, testing, and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

We cannot be certain that the claims in patents or our pending patent applications directed to LNZ100 or any of our future product candidates will be considered patentable by the USPTO, by patent offices in foreign countries, by the courts, or by other relevant authority. One aspect of the determination of patentability of our inventions depends on the scope and content of the "prior art," information that was or is deemed available to a person of skill in the relevant art prior to the priority date of the claimed invention. There may be prior art of which we are not aware that may affect the patentability of our patent claims or, if issued, affect the validity or enforceability of a patent claim relevant to our business. There is no assurance that there is not prior art of which we are aware, but which we do not believe is relevant to our business, which may, nonetheless, ultimately be found to limit our ability to make, use, sell, offer for sale or import our products that may be approved in the future, or impair our competitive position. Even if the patents do issue based on the patent applications we own, co-own or exclusively license, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, patents in our portfolio may not adequately exclude third parties from practicing relevant technology or prevent others from designing around our claims. If the breadth or strength of our intellectual property position with respect to our product candidates is threatened, it could dissuade companies from collaborating with us to develop, and threaten our ability to commercialize, our product candidates. In the event of litigation or administrative proceedings, we cannot be certain that the claims in any of our issued patents will be considered valid by courts in the United States or foreign countries.

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

We rely on patent, trademark, trade secret and other intellectual property protection in the discovery, development, manufacturing and sale of LNZ100 and any future product candidates. In particular, patent protection is important in the development and eventual commercialization of LNZ100 or any of our future product candidates. Patents covering LNZ100 or any of our future product candidates normally provide market exclusivity, which is important in order for LNZ100 or any of our future product candidates to become profitable.

Patent rights are of limited duration. In the United States, if all maintenance fees are paid timely, the natural expiration of a patent is generally 20 years after its first effective filing date. Various extensions may be available, but the life of a patent, and the protection it affords is limited. Given the amount of time required for the development, testing, and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such product candidates are commercialized. Even if patents covering our product candidates are obtained, once the patent life has expired for a product, we may be open to competition from generic products. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing product candidates similar or identical to ours. Upon issuance in the United States, the term of a patent can be increased by patent term adjustment, which is based on certain delays caused by the USPTO, but this increase can be reduced or eliminated based on certain delays caused by the patent applicant during patent

prosecution. The term of a U.S. patent may also be shortened if the patent is terminally disclaimed over an earlier-filed patent.

Depending upon the timing, duration and specifics of FDA marketing approval of LNZ100 and future product candidates, one or more of our U.S. patents may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Amendments. The Hatch-Waxman Amendments permit a patent restoration term of up to five years beyond the normal expiration of the patent as compensation for patent term lost during drug development and the FDA regulatory review process, which is limited to the approved indication (or any additional indications approved during the period of extension). This extension is based on the first approved use of a product and is limited to only one patent that covers the approved product, the approved use of the product, or a method of manufacturing the product. Such patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. However, the applicable authorities, including the FDA and the USPTO in the United States, and any equivalent regulatory authority in other countries, may not agree with our assessment of whether such extensions are available, and may refuse to grant extensions to our patents, or may grant more limited extensions than we request. We may not be granted an extension because of, for example, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time-period or the scope of patent protection afforded could be less than we request. If we are unable to extend the expiration date of our existing patents or obtain new patents with longer expiry dates, our competitors may be able to take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data to obtain approval of competing products following our patent expiration and launch their product earlier than might otherwise be the case.

In addition, upon approval of a drug, each of the patents listed in the application for the drug is then published in the FDA's Approved Drug Products with Therapeutic Equivalence Evaluations, commonly known as the Orange Book. Upon submission of an ANDA or a 505(b)(2) NDA, an applicant must certify to the FDA that (1) no patent information on the drug product that is the subject of the application has been submitted to the FDA; (2) such patent has expired; (3) the date on which such patent expires; or (4) such patent is invalid or will not be infringed upon by the manufacture, use or sale of the drug product for which the application is submitted. Generally, the ANDA or 505(b)(2) NDA cannot be approved until all listed patents have expired, except where the ANDA or 505(b)(2) NDA applicant challenges a listed patent through the last type of certification, also known as a paragraph IV certification. We cannot guarantee that a patent that may cover LNZ100 or a future product candidate can or will be appropriately listed in the Orange Book.

Laws governing analogous patent term extension ("PTE") in foreign jurisdictions vary widely, as do laws governing the ability to obtain multiple patents from a single patent family. Additionally, we may not receive an extension if we fail to exercise due diligence during the testing phase or regulatory review process, apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. If we are unable to obtain PTE or restoration, or the term of any such extension is less than we request, the period during which we will have the right to exclusively market our product will be shortened and our competitors may obtain approval of competing products following our patent expiration and may take advantage of our investment in development and clinical trials by referencing our clinical and preclinical data to launch their product earlier than might otherwise be the case, and our revenue could be reduced, possibly materially.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment, and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for noncompliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other government fees on patents and/or patent applications will be due to be paid to the USPTO and other foreign patent agencies in several stages over the lifetime of our patents and patent applications. The USPTO and various foreign national or international patent agencies require compliance with a number of procedural, documentary, fee payment, and other similar provisions during the patent application process. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in

the relevant jurisdiction. Noncompliance events that could result in abandonment or lapse of patent rights include, but are not limited to, failure to timely file national and regional stage patent applications based on our international patent application, failure to respond to official actions within prescribed time limits, non-payment of fees, and failure to properly legalize and submit formal documents. We employ reputable law firms and other professionals to help us comply with these provisions. In many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which noncompliance can result in abandonment or lapse of a patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. If such an event were to occur, it could have a material adverse effect on our business. If we or any of our licensors fail to maintain the patents and patent applications covering LNZ100 or any future product candidate, our competitors may be able to enter the market, which would have an adverse effect on our business, financial conditions, results of operations and growth prospects. We do not have granted patents in certain major markets, including Europe, and cannot guarantee that we will obtain patent coverage in such markets that cover LNZ100 or any future product candidate.

We may not identify relevant third-party patents or may incorrectly interpret the relevance, scope or expiration of a third-party patent, which might adversely affect our ability to develop and market our products.

As the biopharmaceutical industry expands and more patents are issued, the risk increases that LNZ100 or any of our future product candidates may be subject to claims of infringement of the patent rights of third parties. There can be no assurance that our operations do not, or will not in the future, infringe, misappropriate or otherwise violate existing or future third-party patents or other intellectual property rights. Identification of third-party patent rights that may be relevant to our operations is difficult because patent searching is imperfect due to differences in terminology among patents, incomplete databases and the difficulty in assessing the meaning of patent claims. We cannot provide any assurances that third-party patents do not exist which might be enforced against our existing products or current technology, including our research programs, LNZ100, any of our future product candidates, their respective methods of use, and manufacture thereof, and could result in either an injunction prohibiting our manufacture or future sales, or, with respect to our future sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties, which could be significant. We cannot guarantee that any of our patent searches or analyses, including the identification of relevant patents, the scope of patent claims or the expiration of relevant patents, are complete or thorough, nor can we be certain that we have identified each and every third-party patent and pending application in the United States and abroad that is relevant to or necessary for the commercialization of our current and future product candidates in any jurisdiction.

Numerous U.S. and foreign patents and pending patent applications exist in our market that are owned by third parties. Our competitors in both the United States and abroad, many of which have substantially greater resources and have made substantial investments in patent portfolios and competing technologies, may have applied for or obtained or may in the future apply for and obtain, patents that will prevent, limit or otherwise interfere with our ability to make, use and sell our product candidates. We do not always conduct independent reviews of pending patent applications and patents issued to third parties. Patent applications in the United States and elsewhere are typically published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Certain U.S. applications that will not be filed outside the United States can remain confidential until patents issue. In addition, patent applications in the United States and elsewhere can be pending for many years before issuance, or unintentionally abandoned patents or applications can be revived. Furthermore, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our product candidates or the use of our product candidates. As such, there may be applications of others now pending or recently revived patents of which we are unaware. These patent applications may later result in issued patents, or the revival of previously abandoned patents, that may be infringed by the manufacture, use or sale of our product candidates or will prevent, limit or otherwise interfere with our ability to make, use or sell our product candidates.

The scope of a patent claim is determined by an interpretation of the law, the written disclosure in a patent and the patent's prosecution history. Our interpretation of the relevance or the scope of a patent or a pending application may be incorrect, which may negatively impact our ability to market our products. For example, we may incorrectly determine that our product candidates are not covered by a third-party patent or may incorrectly predict whether a third party's pending application will issue with claims of relevant scope. Our determination of the expiration date of

any patent in the United States or abroad that we consider relevant may be incorrect, and our failure to identify and correctly interpret relevant patents may negatively impact our ability to develop and market our products.

We may become involved in third-party claims of intellectual property infringement, which may delay or prevent the development and commercialization of LNZ100 and any future product candidate.

Our commercial success depends in part on our ability to develop, manufacture, market and sell LNZ100 and any future product candidates, while avoiding infringement and other violations of the patents and proprietary rights of third parties. There is a substantial amount of litigation, both within and outside the United States, involving patent and other intellectual property rights in the biotechnology and pharmaceutical industries, including patent infringement lawsuits, interferences, derivation, and administrative law proceedings, inter partes review, and post-grant review before the USPTO, as well as oppositions and similar processes in foreign jurisdictions. We may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights who allege that our product candidates, uses and/or other proprietary technologies infringe their intellectual property rights. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we and our collaborators are developing product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, and as we gain greater visibility and market exposure as a public company, the risk increases that our product candidates or other business activities may be subject to claims of infringement of the patent and other proprietary rights of third parties. Third parties may assert that we are infringing their patents or employing their proprietary technology without authorization.

Litigation or other legal proceedings relating to intellectual property claims, with or without merit, is unpredictable and generally expensive and time consuming and, even if resolved in our favor, is likely to divert significant resources from our core business, including distracting our technical and management personnel from their normal responsibilities. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to adequately conduct such litigation or proceedings. Some of our competitors may be able to sustain costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

Also, there may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our current and future product candidates. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that our current or future product candidates may infringe.

In addition, third parties may obtain patent rights in the future and claim that use of our technologies infringes upon their rights. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of any of our product candidates, any molecules formed during the manufacturing process, methods of treating certain diseases or conditions that we are pursuing with our product candidates, our formulations including combination therapies, or any final product itself, the holders of any such patents may be able to block our ability to commercialize such product candidate unless we obtained a license under the applicable patents, or until such patents expire. Such a license may not be available on commercially reasonable terms or at all. In addition, we may be subject to claims that we are infringing other intellectual property rights, such as trademarks or copyrights, or misappropriating the trade secrets of others, and to the extent that our employees, consultants or contractors use intellectual property or proprietary information owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our current and future product candidates. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful infringement or other intellectual property claim against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our affected products,

which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any such license would be available at all or whether it would be available on commercially reasonable terms. Furthermore, even in the absence of litigation, we may need to obtain licenses from third parties to advance our research or allow commercialization of our product candidates, and we have done so from time to time. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize one or more of our product candidates, which could harm our business significantly. We cannot provide any assurances that third-party patents do not exist which might be enforced against our product candidates, resulting in either an injunction prohibiting our sales, or, with respect to our sales, an obligation on our part to pay royalties or other forms of compensation to third parties.

During the course of any intellectual property litigation, there could be public announcements of the initiation of the litigation as well as results of hearings, rulings on motions, and other interim proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of our existing products, programs or intellectual property could be diminished. Accordingly, the market price of shares of our common stock may decline. Such announcements could also harm our reputation or the market for our future products, which could have a material adverse effect on our business.

We may become involved in lawsuits to protect or enforce our patents or other intellectual property rights, or the patents or other intellectual property rights of any licensors, which could be expensive, time consuming, and unsuccessful, and could result in a court or administrative body finding our patents to be invalid or unenforceable.

Competitors may challenge, infringe or otherwise violate our patents, the patents of our licensors or our other intellectual property rights. To counter challenges, infringement or unauthorized use or misappropriations, we or any future licensors may be required to file or defend legal claims, which can be expensive and time-consuming. In addition, in such a proceeding, a court may decide that one or more patent of ours or any of our current or future licensors is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing. The initiation of a claim against a third party may also cause the third party to bring counter claims against us such as claims asserting that our patents are invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness (inventive step), non-enablement, insufficient written description, or failure to claim patent-eligible subject matter. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant material information from the USPTO, or made a materially misleading statement, during prosecution. Third parties may also raise similar validity claims before the USPTO in post-grant proceedings such as ex parte reexaminations, inter partes review, or post-grant review, or oppositions or similar proceedings outside the United States, in parallel with litigation or even outside the context of litigation. The outcome following legal assertions of invalidity and unenforceability is unpredictable. In any patent infringement proceeding, there is a risk that a court will decide that a patent of ours or any future licensors is invalid or unenforceable, in whole or in part, and that we do not have the right to stop the other party from using the invention at issue. There is also a risk that, even if the validity of such patents is upheld, the court will construe the patent's claims narrowly or decide that we do not have the right to stop the other party from using the invention at issue on the grounds that it or any future licensors' patent claims do not cover the invention, or decide that the other party's use of our or any future licensors' patented technology falls under the safe harbor to patent infringement under 35 U.S.C. §271(e)(1). An adverse outcome in a litigation or proceeding involving our or any future licensors' patents could limit our ability to assert our own or any future licensors' patents against those parties or other competitors and may curtail or preclude our ability to exclude third parties from making and selling similar or competitive products. Any of these occurrences could adversely affect our competitive position, and our business, financial condition, results of operations and prospects. Similarly, if we assert trademark infringement claims, a court may determine that the marks we have asserted are invalid or unenforceable, or that the party against whom we have asserted trademark infringement has superior rights to the marks in question. In this case, we could ultimately be forced to cease use of such trademarks.

We cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. For any patents and patent applications that we may license from third parties in the future, we may have limited or no right to participate in the defense of such licensed patents against challenge by a third party. If a defendant were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our current or future product candidates. Such a loss of patent protection could harm our business.

We may not be able to prevent, alone or with our licensees, misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States. Our business could be harmed if in litigation the prevailing party does not offer us a license on commercially reasonable terms. Any litigation or other proceedings to enforce our intellectual property rights may fail, and even if successful, may result in substantial costs and distract our management and other employees.

Even if we establish infringement, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have an adverse effect on the price of our common stock. Moreover, we cannot assure you that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. Even if we ultimately prevail in such claims, the monetary cost of such litigation and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of the proceedings.

Because of the expense and uncertainty of litigation, we may not be in a position to enforce our intellectual property rights against third parties.

Because of the expense and uncertainty of litigation, we may conclude that even if a third party is infringing our patents, any patents that may be issued as a result of our future patent applications, or other intellectual property rights, the risk-adjusted cost of bringing and enforcing such a claim or action may be too high or not in the best interest of our company or our stockholders. In such cases, we may decide that the more prudent course of action is to simply monitor the situation or initiate or seek some other non-litigious action or solution.

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

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents relating to LNZ100 and any future product candidates. Obtaining, defending, maintaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity and is therefore costly, time consuming and inherently uncertain. Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents, and may diminish our ability to protect our inventions, obtain, maintain, enforce and protect our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our future owned and licensed patents. The United States has enacted and implemented wide-ranging patent reform legislation. The U.S. Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on actions by Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce patents that we have licensed or that we might obtain in the future. Similarly, changes in patent law and regulations in other countries or jurisdictions or changes in the governmental bodies that enforce them or changes in how the relevant governmental authority enforces patent laws or regulations may weaken our ability to obtain new patents or to enforce patents that we have licensed or that we may obtain in the future. For example, the complexity and uncertainty of European patent laws have also increased in recent years.

In Europe, a new unitary patent system took effect June 1, 2023, which will significantly impact European patents, including those granted before the introduction of such a system. Under the unitary patent system, European applications have the option, upon grant of a patent, of becoming a Unitary Patent which will be subject to the jurisdiction of the Unitary Patent Court (the "UPC"). As the UPC is a new court system, there is no precedent for the court, increasing the uncertainty of any litigation. Patents granted before the implementation of the UPC have the option of opting out of the jurisdiction of the UPC over the first seven years of the court's existence and remaining as national patents in the UPC countries. Patents that remain under the jurisdiction of the UPC will be potentially vulnerable to a single UPC-based revocation challenge that, if successful, could invalidate the patent in all countries who are signatories to the UPC. We cannot predict with certainty the long-term effects of any potential changes. We may decide to opt out our future European patents from the UPC, but doing so may preclude us from realizing the benefits of the UPC. Moreover, if we do not meet all of the formalities and requirements for opt-out under the UPC, our future European patents could remain under the jurisdiction of the UPC. The UPC will provide our competitors with a new forum to centrally revoke our European patents and allow for the possibility of a competitor to obtain pan-European injunction. Such a loss of patent protection could have a material adverse impact on our business and our ability to commercialize our technology and product candidates due to increased competition and, resultantly, on our business, financial condition, prospects and results of operations.

We may not be able to protect our intellectual property rights throughout the world, which could impair our business.

Patents are of national or regional effect, and filing, prosecuting, and defending patents covering LNZ100 and any future product candidate throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States, even in jurisdictions where we do pursue patent protection. Consequently, we may not be able to prevent third parties from practicing our or any future licensors' inventions in all countries outside the United States, even in jurisdictions where we or any future licensors do pursue patent protection, or from selling or importing products made using our or any future licensors' inventions in and into the United States or other jurisdictions. Competitors may use our or any future licensors' technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we may have or obtain patent protection, but where patent enforcement is not as strong as that in the United States. These competitors' products may compete with our products in such jurisdictions and take away our market share where we do not have any issued or licensed patents and any future patent claims or other intellectual property rights may not be effective or sufficient to prevent them from so competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. In addition, certain jurisdictions do not protect to the same extent or at all inventions that constitute new methods of treatment. Proceedings to enforce our patent rights in foreign jurisdictions, whether or not successful, could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license. Furthermore, while we intend to protect our intellectual property rights in our expected significant markets, we cannot ensure that we will be able to initiate or maintain similar efforts in all jurisdictions in which we may wish to market our product candidates. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate, which may have an adverse effect on our ability to successfully commercialize LNZ100 or any of our future product candidates in all of our expected significant foreign markets.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. As a result, the patent owner may have limited remedies in certain circumstances, which could materially diminish the value of such patent. If we or any of our licensors are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected. Accordingly, our efforts to protect or enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license. Furthermore, while we intend to protect our intellectual property rights in our expected significant markets, we cannot ensure that we will be able to initiate or maintain similar efforts in all jurisdictions in which we may wish to market our product candidates. Accordingly, our efforts to protect our intellectual property rights in such countries may be inadequate, which may have an adverse effect on our ability to successfully commercialize LNZ100 or any of our future product candidates in all of our expected significant foreign markets.

Further, the standards applied by the USPTO and foreign patent offices in granting patents are not always applied uniformly or predictably. As such, we do not know the degree of future protection that we will have on our technologies, products and product candidates. While we will endeavor to try to protect our technologies, products and product candidates with intellectual property rights such as patents, as appropriate, the process of obtaining patents is time-consuming, expensive and unpredictable.

Further, geo-political actions in the United States and in foreign countries (such as the Russia and Ukraine conflict) could increase the uncertainties and costs surrounding the prosecution or maintenance of our patent applications or those of any current or future licensors and the maintenance, enforcement or defense of our issued patents or those of any current or future licensors. Accordingly, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws within the United States. We may need to share our trade secrets and proprietary know-how with current or future partners, collaborators, contractors and others located in countries at heightened risk of theft of trade secrets, including through direct intrusion by private parties or foreign actors, and those affiliated with or controlled by state actors. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. In addition, some courts inside and outside the United States are sometimes less willing or unwilling to protect trade secrets. If we choose to go to court to stop a third party from using any of our trade secrets, we may incur substantial costs. Even if we are successful, these types of lawsuits may consume our time and other resources. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to the protection afforded by patents, we may seek to rely on trade secret protection to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our product discovery and development processes that involve proprietary know-how, information, or technology that is not covered by our patents. We may not be able to meaningfully protect our trade secrets. Although we require all of our employees to assign their inventions to us, and require all of our employees, consultants, advisors and any third parties who have access to our proprietary know-how, information, or technology to enter into confidentiality agreements, we cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed to our competitors or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws within the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, operating results, and financial condition.

Because we expect to rely on third parties to manufacture LNZ100 and any future product candidates, and we expect to collaborate with third parties on the continuing development of LNZ100 and any future product candidates, we must, at times, share trade secrets with them. We also expect to conduct R&D programs that may require us to share trade secrets under the terms of our partnerships or agreements with CROs. We seek to protect our proprietary technology in part by entering into agreements containing confidentiality and use restrictions and obligations, including material transfer agreements, consulting agreements, manufacturing and supply agreements, confidentiality agreements or other similar agreements with our advisors, employees, contractors, CMOs, CROs, other service providers and consultants prior to disclosing proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information, including our trade secrets. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors, are inadvertently incorporated into the technology of others, or are disclosed or used in violation of these agreements. Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's discovery of our trade secrets or other unauthorized use or disclosure would impair our competitive position and may have an adverse effect on our business and results of operations.

In addition, these agreements typically restrict the ability of our advisors, employees, third-party contractors CMOs, CROs, other service providers and consultants to publish data potentially relating to our trade secrets, although such agreements may contain certain limited publication rights. Despite our efforts to protect our trade secrets, our competitors may discover such trade secrets, either through breach of our agreements with third parties, independent development or publication of information by any of our third-party collaborators. A competitor's discovery of our trade secrets would impair our competitive position and have an adverse impact on our business.

Monitoring unauthorized disclosure and detection of unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time-consuming, and the outcome would be unpredictable. In addition, courts outside the United States are sometimes less willing to protect trade secrets. If we choose to go to court to stop a third party from using any of our trade secrets, we may incur substantial costs. These lawsuits may consume our time and other resources even if we are successful. For example, significant elements of our products, including confidential aspects of sample preparation, methods of manufacturing, and related processes and software, are based on unpatented trade secrets. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of their former employers or other third parties or claims asserting ownership of what we regard as our own intellectual property.

We employ individuals who were previously employed at other biotechnology or pharmaceutical companies, or at research institutions, including our competitors or potential competitors. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that these individuals have or we have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. Further, although we seek to protect our ownership of intellectual property rights by ensuring that our agreements with our employees, collaborators, and other third parties with whom we do business include provisions requiring such parties to assign rights in inventions to us, we may be subject to claims that we or our employees, consultants or independent contractors have inadvertently or otherwise used or disclosed confidential information of our employees' former employers or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights. An inability to incorporate such technologies or features would harm our business and may prevent us from successfully commercializing our technologies or product candidates. In addition, we may lose personnel as a result of such claims and any such litigation, or the threat thereof, may adversely affect our ability to hire employees or contract with independent contractors. A loss of key personnel or their work product could hamper or prevent our ability to commercialize our technologies or product candidates, which could adversely affect our

business, financial condition, results of operations and prospects. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management.

In addition, we may also be subject to claims that former employers, consultants or other third parties have an ownership interest in our patents or patent applications as an inventor or co-inventor. The failure to name the proper inventors on a patent application can result in the patents issuing thereon being unenforceable. Inventorship disputes may arise from conflicting views regarding the contributions of different individuals named as inventors, the effects of foreign laws where foreign nationals are involved in the development of the subject matter of the patent, conflicting obligations of third parties involved in developing our product candidates or as a result of questions regarding co-ownership of potential joint inventions. Litigation may be necessary to resolve these and other claims challenging inventorship and/or ownership. Alternatively, or additionally, we may enter into agreements to clarify the scope of our rights in such intellectual property. There is no guarantee of success in defending these claims, and if we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such challenges may also result in our inability to develop, manufacture or commercialize our technologies and product candidates without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future technologies and product candidates. Even if we are successful, litigation could result in substantial cost and be a distraction to our management and other employees. Any of the foregoing could adversely affect our business, financial condition, results of operations and prospects.

If our future trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

We intend to use registered or unregistered trademarks or trade names to brand and market ourselves and our products. Our trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. During trademark registration proceedings, we may receive rejections of our applications by the USPTO or in other foreign jurisdictions. Although we are given an opportunity to respond to such rejections, we may be unable to overcome them. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, which may not survive such proceedings.

We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. We may license our trademarks and trade names to third parties, such as distributors. Though these license agreements may provide guidelines for how our trademarks and trade names may be used, a breach of these agreements or misuse of our trademarks and trade names by our licensees may jeopardize our rights in or diminish the goodwill associated with our trademarks and trade names. Our efforts to enforce or protect our proprietary rights related to trademarks, trade names, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our financial condition or results of operations.

In addition, any proprietary name we propose to use with our current or future product candidates in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of the potential for confusion with other product names. If the FDA objects to any of our proposed proprietary product names, we may be required to expend significant additional resources in an effort to identify a suitable proprietary product name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. Furthermore, in many countries, owning and maintaining a trademark registration may

not provide an adequate defense against a subsequent infringement claim asserted by the owner of a senior trademark.

Intellectual property rights do not necessarily address all potential threats to our competitive advantage.

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

- others may be able to make formulations or compositions that are the same as or similar to our current and future product candidates, but that are not covered by the pending patent applications or patents that we own or any pending patent applications or patents that we may in-license in the future;
- others may be able to make product that is similar to our current and future product candidates that we intend to commercialize and that is not covered by the patents that we exclusively licensed and have the right to enforce;
- we, any of our future licensors or collaborators might not have been the first to make the inventions covered by the issued patents or pending patent applications that we own or may in-license in the future;
- we or any of our future licensors might not have been the first to file patent applications covering certain of its or those licensors' inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing or otherwise violating our owned intellectual property rights or any patent applications that we may license in the future;
- it is possible that our pending patent applications or those that we may own or license in the future will not lead to issued patents;
- issued patents that we either own or that we may license in the future may be revoked, modified or held valid or unenforceable, as a result of legal challenges by our competitors;
- issued patents that we either own or that we may license in the future may not provide us with any competitive advantages;
- others may have access to the same intellectual property rights licensed to us in the future on a non-exclusive basis;
- our competitors might conduct research and development activities in the United States and other countries that provide a safe harbor from patent infringement claims for certain research and development activities, as well as in countries where we do not have patent rights, and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- we cannot predict the scope of protection of any patent issuing based on our or any future licensors' patent applications, including whether the patent applications that we own, or, in the future, in-licenses will result in issued patents with claims directed to our product candidates or uses thereof in the United States or in other foreign countries;
- the claims of any patent issuing based on our patent applications may not provide protection against competitors or any competitive advantages, or may be challenged by third parties;
- if enforced, a court may not hold that our patents are valid, enforceable or infringed;
- we may need to initiate litigation or administrative proceedings to enforce and/or defend our patent rights which will be costly whether we win or lose;

- we may choose not to file a patent application in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent application covering such intellectual property;
- we may fail to adequately protect and police our trademarks and trade secrets; and
- the patents of others may have an adverse effect on our business, including if others obtain patents claiming subject matter similar to or improving that covered by our patent applications.

Any collaboration or partnership arrangements that we may enter into in the future may not be successful, which could adversely affect our ability to develop and commercialize our products.

Any future collaborations that we enter into may not be successful. The success of our collaboration arrangements will depend heavily on the efforts and activities of our collaborators. Collaborations are subject to numerous risks, which may include that:

- collaborators have significant discretion in determining the efforts and resources that they will apply to collaborations;
- collaborators may not pursue development and commercialization of our products or may elect not to continue or renew development or commercialization programs based on trial or test results, changes in our strategic focus due to the acquisition of competitive products, availability of funding or other external factors, such as a business combination that diverts resources or creates competing priorities;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with our current and future product candidates;
- a collaborator with marketing, manufacturing and distribution rights to one or more products may not commit sufficient resources to or otherwise not perform satisfactorily in carrying out these activities;
- we could grant exclusive rights to our collaborators that would prevent us from collaborating with others;
- collaborators 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 liability;
- disputes may arise between us and a collaborator that causes the delay or termination of the research, development or commercialization of our current or future product candidates or that results in costly litigation or arbitration that diverts management attention and resources;
- collaborations may be terminated, and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable current or future product candidates;
- collaborators may own or co-own intellectual property covering our products that results from our collaborating with them, and in such cases, we would not have the exclusive right to develop or commercialize such intellectual property; and
- a collaborator's sales and marketing activities or other operations may not be in compliance with applicable laws resulting in civil or criminal proceedings.

If we fail to comply with our obligations under any license, collaboration or other agreements, such agreements may be terminated, we may be required to pay damages and could lose intellectual property rights that are necessary for developing and protecting our product candidates.

We may in the future license or otherwise acquire development or commercialization rights to current and future product candidates or data from third parties. If any future licensors fail to prosecute, maintain, enforce, and defend such patents, or lose rights to those patents, the rights we have licensed may be reduced or eliminated, and our right to develop and commercialize future product candidates that may be subject of such licensed rights could

be adversely affected. In spite of our efforts, any future licensors might conclude that we are in material breach of obligations under our license agreements. If we breach any material obligations, or use the intellectual property licensed to us in an unauthorized manner, we may be required to pay damages and the licensor may have the right to terminate the license, which could result in us being unable to develop, manufacture, and sell products that are covered by the licensed technology or enable a competitor to gain access to the licensed technology. If such in-licenses are terminated, or if the underlying patents fail to provide the intended exclusivity, our competitors will have the freedom to seek regulatory approval of, and to market, products identical to our product candidates and the licensors to such in-licenses could prevent us from developing or commercializing product candidates that rely upon the patents or other intellectual property rights which were the subject matter of such terminated agreements. Any of these events could adversely affect our business, financial condition, results of operations, and prospects.

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

- the scope of rights granted under the license agreement and other interpretation-related issues;
- either party's financial or other obligations under the license agreement;
- whether and the extent to which our technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our right to sublicense patents and other rights under our collaborative development relationships to third parties;
- our diligence obligations with respect to the use of the licensed technology in relation to our development and commercialization of our product candidates, and what activities satisfy those diligence obligations;
- our right to transfer or assign the license;
- the inventorship or ownership of inventions and know-how resulting from the joint creation or use of intellectual property by any of our licensors and us and our partners; and
- the priority of invention of patented technology.

If disputes over intellectual property that we license prevent or impair our ability to maintain our licensing arrangements on acceptable terms, we may not be able to successfully develop and commercialize the affected product candidates, which would have a material adverse effect on our business.

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

Further, we or our current or future licensors, if any, may fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection on them. Therefore, we may miss potential opportunities to strengthen our patent position. It is possible that defects of form in the preparation or filing of our patents or patent applications may exist, or may arise in the future, for example with respect to proper priority claims, inventorship, ownership, claim scope, or requests for patent term adjustments. If such defects are identified in a granted patent, we may reissue the granted patent, which would require us to relinquish the patent, and subject the patent to subsequent reissue patent examination. During reissue examination, there is no guarantee that a similar scope of claim would again be granted or that any claim would be granted at all. In addition, if defects in ownership or assignment of rights are identified, there is no guarantee that we would be able to perfect such ownership or assignment of rights. If our current or future licensors are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised. If there are material defects in the form, preparation, prosecution, or enforcement of our patents or patent applications, such patents may be invalid and/or unenforceable, and such applications may never result in valid, enforceable patents. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

In addition, even where we have the right to control patent prosecution of patents and patent applications under a license from third parties, we may still be adversely affected or prejudiced by actions or inactions of our predecessors or licensors and their counsel that took place prior to us assuming control over patent prosecution.

Our acquired technologies and current or future licensed technology may be subject to retained rights. Our predecessors or licensors may retain certain rights under their agreements with us, including the right to use the underlying technology for noncommercial academic and research use, to publish general scientific findings from research related to the technology, and to make customary scientific and scholarly disclosures of information relating to the technology. It is difficult to monitor whether our predecessors or future licensors limit their use of the technology to these uses, and we could incur substantial expenses to enforce our rights to our licensed technology in the event of misuse.

If we are limited in our ability to utilize acquired technologies or current or future licensed technologies, or if we lose our rights to critical acquired or in-licensed technology, we may be unable to successfully develop, out-license, market and sell our products, which could prevent or delay new product introductions. Our business strategy depends on the successful development of acquired technologies, and current or future licensed technology, into commercial products. Therefore, any limitations on our ability to utilize these technologies may impair our ability to develop, out-license or market and sell our product candidate.

We may not be able to license or acquire new or necessary intellectual property rights or technology from third parties.

Because our development programs may in the future require the use of proprietary rights held by third parties, the growth of our business may depend in part on our ability to acquire, in-license, or use these third-party proprietary rights. Further, other parties, including our competitors, may have patents and have filed and are likely filing patent applications potentially relevant to our business. In order to avoid infringing these patents, we may find it necessary or prudent to obtain licenses to such patents from such parties. The licensing or acquisition of intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. No assurance can be given that we will be successful in licensing any additional rights or technologies from third parties. Our inability to license the rights and technologies that we have identified, or that we may in the future identify, could have a material adverse impact on our ability to complete the development of our product candidates or to develop additional product candidates. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and it could require us to make substantial licensing and royalty payments. Failure to obtain any necessary rights or licenses may detrimentally affect our planned development of our current or future product candidates could be impacted and costs could increase, extending timelines associated with the development of such other product candidates if we fail to acquire necessary rights or licenses. We may even have to abandon the development of the relevant program or product candidate. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may enter into license agreements in the future with others to advance our existing or future research or allow commercialization of our existing or future product candidates. These licenses may not provide exclusive rights to use such intellectual property and technology in all relevant fields of use and in all territories in which we may wish to develop or commercialize our technology and product candidates in the future. In that event, we may be required to expend significant time and resources to redesign our product candidates, or the methods for manufacturing them, all of which may not be feasible on a technical or commercial basis. If we are unable to do so, we may be unable to develop or commercialize the affected product candidates, which could harm our business, financial condition, results of operations, and prospects significantly. We cannot provide any assurances that third-party patents do not exist which might be enforced against our current manufacturing methods, product candidates, or future methods or product candidates resulting in either an injunction prohibiting their manufacture or future

sales, or, with respect to their future sales, an obligation on our part to pay royalties and/or other forms of compensation to third parties, which could be significant.

Risks Related to Our Regulatory Approval and Other Legal Compliance Matters

The regulatory approval processes of the FDA and other comparable foreign regulatory authorities are lengthy, time consuming and inherently unpredictable. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals for our product candidates, we will not be able to commercialize, or will be delayed in commercializing, our product candidates, and our ability to generate revenue will be materially impaired.

Our product candidates, including LNZ100 and any future product candidates we may seek to develop, and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale, distribution, import and export are subject to comprehensive regulation by the FDA and other regulatory agencies in the United States and by comparable foreign regulatory authorities. Before we can commercialize any of our product candidates, we must obtain marketing approval.

Obtaining approval by the FDA and other comparable foreign regulatory authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the type, complexity and novelty of the product candidates involved. In addition, approval policies, regulations or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. Further, securing regulatory approval also requires the submission of information about the drug manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority.

Prior to obtaining approval to commercialize any drug product candidate in the United States or abroad, we must demonstrate with substantial evidence from well-controlled clinical trials, and to the satisfaction of the FDA or foreign regulatory agencies, that such product candidates are safe and effective for their intended uses. Results from preclinical studies and clinical trials can be interpreted in different ways. Even if we believe the preclinical or clinical data for our product candidates are promising, such data may not be sufficient to support approval by the FDA and other regulatory authorities. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional nonclinical, clinical or other data. Even if we eventually complete clinical testing and receive approval for our product candidates, the FDA and other comparable foreign regulatory authorities may approve our product candidates for a more limited indication or a narrower patient population than we originally requested or may impose other prescribing limitations or warnings that limit the product's commercial potential. The FDA may also require us to conduct additional preclinical studies or clinical trials for our product candidates either prior to or after approval, or may object to elements of our clinical development programs. We have not submitted for, or obtained, regulatory approval for any product candidate, and it is possible that none of our product candidates will ever obtain regulatory approval. Further, development of our product candidates or regulatory approval may be delayed for reasons beyond our control.

Applications for LNZ100 or any future product candidates could fail to receive regulatory approval for many reasons, including the following:

- the FDA or other comparable foreign regulatory authorities may disagree with the design, implementation or results of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA or other comparable foreign regulatory authorities that a product candidate is safe and effective for its proposed indication;
- the results of clinical trials may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- the population studied in the clinical trials may not be sufficiently broad or representative to assure efficacy and safety in the full population for which we seek approval;

- the FDA or other comparable foreign regulatory authorities may disagree with our interpretation of data from nonclinical studies or clinical trials;
- we may be unable to demonstrate to the FDA or other comparable foreign regulatory authorities that our product candidate's risk-benefit ratio for its proposed indication is acceptable;
- the FDA or other comparable foreign regulatory authorities may fail to approve the manufacturing processes, test procedures and specifications or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA or other comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval or resulting in delays in their regulatory approval.

Of the large number of drugs in development, only a small percentage successfully complete the FDA or comparable foreign regulatory approval processes and are commercialized. The lengthy approval processes as well as the unpredictability of future clinical trial results may result in us failing to obtain regulatory approval to market our product candidates, which would significantly harm our business, results of operations and prospects.

This lengthy approval process, as well as the unpredictability of the results of clinical trials, may result in us failing to obtain regulatory approval to market LNZ100 or any future product candidates, which would significantly harm our business, results of operations and prospects. In addition, even if we obtain approval of LNZ100 or any future product candidates, regulatory authorities may approve any of such product candidates for fewer or more limited indications than we request, may impose significant limitations in the form of narrow indications, warnings, or a risk evaluation and mitigation strategy ("REMS"). In addition, the FDA or comparable foreign regulatory authorities may change its policies, issue additional regulations or revise existing regulations, or take other actions, which may prevent or delay approval of LNZ100 or any future product candidates on a timely basis. Such policy or regulatory changes could impose additional requirements upon us that could delay our ability to obtain approvals, increase the costs of compliance or restrict our ability to maintain any marketing authorizations we may have obtained.

Our current or future product candidates may fail to demonstrate substantial evidence of their safety and efficacy or cause significant adverse events or other undesirable side effects may be identified during the development of our product candidates, which could prevent, delay or limit the scope of regulatory approval of our product candidates, prevent market acceptance, limit our commercial potential or result in significant negative consequences.

To obtain the requisite regulatory approvals for the commercial sale of our product candidates, we must demonstrate through lengthy, complex and expensive preclinical testing and clinical trials that our product candidates are safe and effective for use in each target indication. Preclinical studies and clinical trials are expensive and time-consuming, and their outcomes are inherently uncertain. Failures can occur at any time during the development process. Product candidates often fail to demonstrate safety or efficacy of the product candidate studied for the target indication, and most product candidates that begin clinical trials are never approved.

While we believe our Phase 3 CLARITY trials were completed successfully, we may fail to demonstrate with substantial evidence from adequate and well-controlled trials, and to the satisfaction of the FDA or comparable foreign regulatory authorities, that LNZ1000 or any future product candidates are safe and effective for their intended uses.

If our product candidates are associated with undesirable side effects or have unexpected characteristics in nonclinical studies or clinical trials when used alone or in combination with other approved products or investigational new drugs, we may decide or be required to perform additional clinical studies or to interrupt, delay or abandon our development or limit development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. Treatment-related side effects could also affect patient recruitment or the ability of enrolled subjects to complete the clinical trial, or result in potential product liability claims. Any of these occurrences may prevent us from achieving

or maintaining market acceptance of the affected product candidate and may harm our business, financial condition, and prospects significantly. Moreover, if we elect, or are required, to not initiate, delay, suspend or terminate any future clinical trial of any of our product candidates, the commercial prospects of such product candidates may be harmed and our ability to generate product revenues from any of these product candidates may be delayed or eliminated. Any of these occurrences may harm our ability to develop other product candidates, and may harm our business, financial condition, and prospects significantly.

Patients in our clinical trials may in the future suffer significant adverse events or other side effects not observed in our nonclinical studies or previous clinical trials. Some of our product candidates may be used as chronic therapies or be used in populations for which safety concerns may be particularly scrutinized by regulatory agencies. In addition, if our product candidates are used in combination with other therapies, our product candidates may exacerbate adverse events associated with the therapy. Patients treated with our product candidates may also be undergoing separate treatments which can cause side effects or adverse events that are unrelated to our product candidates, but may still impact the success of our clinical trials, including, for example, by interfering with the effects of our product candidates.

If significant adverse events or other side effects are observed in any of our future clinical trials, we may have difficulty recruiting patients to the clinical trials, patients may drop out of our clinical trials, or we may be required to abandon the clinical trials or our development efforts of that product candidate altogether. We, the FDA or other comparable regulatory authorities, or an IRE may suspend clinical trials of a product candidate at any time for various reasons, including a belief that subjects in such clinical trials are being exposed to unacceptable health risks or adverse side effects. Some potential therapeutics developed in the biotechnology industry that initially showed therapeutic promise in early-stage clinical trials have later been found to cause side effects that prevented their further development. Even if the side effects do not preclude the product candidate from obtaining or maintaining marketing approval, undesirable side effects may inhibit market acceptance due to its tolerability versus other therapies. Any of these developments could materially harm our business, financial condition, and prospects.

Further, if any of our product candidates obtains marketing approval, and we or others later identify adverse events or other side effects associated with such products, a number of potentially negative consequences could result, including:

- regulatory authorities may suspend, withdraw or limit approvals of that product, or seek an injunction against its manufacture or distribution;
- regulatory authorities may require additional warnings on the label;
- we may decide to remove the product from the market;
- we may be required to conduct post-marketing studies or change the way the product is administered;
- we may be sued and held liable for harm caused to subjects or patients;
- we may be subject to fines, injunctions or the imposition of criminal penalties; and
- our reputation and physician or patient acceptance of our products may suffer.

There can be no assurance that we will resolve any issues related to any product-related adverse events to the satisfaction of the FDA or any foreign regulatory agency in a timely manner or at all. Moreover, any of these events could diminish the usage or otherwise limit the commercial success of our product candidates and prevent us from achieving or maintaining market acceptance of the affected product, if approved by applicable regulatory authorities.

Additional time may be required to develop and obtain regulatory approval for LNZ100 because we expect they will be regulated as a drug-device combination product.

We expect LNZ100 to be regulated as a drug-device combination product that will require coordination within the FDA and comparable foreign regulatory authorities and notified bodies for review of its drug and device components. Although the FDA and comparable foreign regulatory authorities and notified bodies have systems in

place for the review and approval of drug-device combination products such as LNZ100, we may experience delays in the development, approval and commercialization of LNZ100 due to regulatory timing constraints and uncertainties in the product development and approval process.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval of our product candidates in other jurisdictions.

Obtaining and maintaining regulatory approval of our product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction. For example, even if the FDA grants marketing approval of a product candidate, comparable regulatory authorities in foreign jurisdictions must also approve the manufacturing, marketing and promotion and pricing of the product candidate in those countries. However, a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from those in the United States, including additional nonclinical studies or clinical trials as clinical trials conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, the pricing of a prescription drug candidate is subject to regulatory approval before it can be approved for sale in that jurisdiction. In some cases, the price that we intend to charge for our products is also subject to approval.

We may also submit marketing applications in other countries. Regulatory authorities in jurisdictions outside of the United States have requirements for approval of product candidates with which we must comply prior to marketing in those jurisdictions. Obtaining foreign regulatory approvals and establishing and maintaining compliance with foreign regulatory requirements could result in significant delays, difficulties, and costs for us and could delay or prevent the introduction of our products in certain countries. If we or any future collaborator fail to comply with the regulatory requirements in international markets or fail to receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of our potential product candidates will be harmed.

Even if we receive regulatory approval of LNZ100 or any future product candidates, we will be subject to ongoing regulatory obligations and continued regulatory oversight, which may result in significant additional expense and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our product candidates.

Even if we obtain any regulatory approval for LNZ100 or any future product candidates, such product candidates will be subject to ongoing regulatory requirements applicable to manufacturing, labeling, packaging, storage, advertising, promoting, sampling, record-keeping and submission of safety or other post-market information, among other things. Any regulatory approvals that we receive for our product candidates will require surveillance to monitor the safety and efficacy of the product candidate. The FDA may also require a REMS, limitations on the approved indicated uses for which the drug may be marketed or to the conditions of approval, or requirements that we conduct potentially costly post-market testing and surveillance studies, including Phase 4 trials and surveillance to monitor the quality, safety and efficacy of the drug. An unsuccessful post-marketing study or failure to complete such a study could result in order to approve our product candidates, which could entail requirements for a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools.

Any new legislation addressing drug safety issues could result in delays in our product development or commercialization, or increased costs to assure compliance. We will also have to comply with requirements concerning advertising and promotion for our products. Promotional communications with respect to prescription drug products are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product’s approved label. As such, we will not be allowed to promote our products for indications or uses for which they do not have approval, commonly known as off-label promotion. The holder of an approved NDA must submit new or supplemental applications and obtain prior approval for certain changes to the approved product, product labeling, or manufacturing process. A company that is found to have improperly promoted off-label uses of its products may be subject to significant civil, criminal and administrative penalties.

In addition, drug manufacturers are subject to payment of user fees and continual review and periodic inspections by the FDA and other regulatory authorities for compliance with cGMP requirements and adherence to commitments made in the NDA or foreign marketing application. If we, the FDA or a comparable foreign regulatory authority, discover previously unknown problems with our product candidates, such as adverse events of unanticipated severity or frequency, or problems with the facility where the drug is manufactured or if a regulatory authority disagrees with the promotion, marketing or labeling of that drug, a regulatory authority may impose restrictions relative to that drug, the manufacturing facility or us including requesting a recall or requiring withdrawal of the drug from the market or suspension of manufacturing.

Failure by us to comply with applicable regulatory requirements following approval of any product candidates, may result in, among other things:

- restrictions on the marketing or manufacturing of our product candidates, withdrawal of the product from the market or voluntary or mandatory product recalls;
- manufacturing delays and supply disruptions where regulatory inspections identify observations of noncompliance requiring remediation;
- revisions to the labeling, including limitation on approved uses or the addition of additional warnings, contraindications or other safety information, including boxed warnings;
- imposition of a REMS, which may include distribution or use restrictions;
- requirements to conduct additional post-market clinical trials to assess the safety of the product;
- suspension or withdrawal of regulatory approvals;
- issuance of fines, untitled letters, warning letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or suspension or revocation of approvals;
- product seizure or detention, or refusal to permit the import or export of our product candidates; and
- injunctions or the imposition of civil or criminal penalties.

The FDA's and other regulatory authorities' policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, and we may not achieve or sustain profitability. We also cannot predict the likelihood, nature, or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. It is difficult to predict how current and future legislation, executive actions, and litigation, including the executive orders, will be implemented, and the extent to which they will impact our business, our clinical development, and the FDA's and other agencies' ability to exercise their regulatory authority, including FDA's pre-approval inspections and timely review of any regulatory filings or applications we submit to the FDA. To the extent any executive actions impose constraints on FDA's ability to engage in oversight and implementation activities in the normal course, our business may be negatively impacted.

Moreover, the FDA strictly regulates the promotional claims that may be made about drug products. In particular, a product may not be promoted for uses that are not approved by the FDA as reflected in the product's approved labeling. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant civil, criminal and administrative penalties. The occurrence of any event or penalty described above may inhibit our ability to commercialize our product candidates and generate revenue and could require us to expend significant time and resources in response and could generate negative publicity.

Disruptions at the FDA, the Securities and Exchange Commission, and other government agencies caused by funding shortages or global health concerns could hinder their ability to hire and retain key leadership and other personnel, or otherwise prevent new or modified products from being developed, approved or commercialized in a timely manner or at all, or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes, and other events that may otherwise affect the FDA's ability to perform routine functions. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of the Securities and Exchange Commission (the "SEC") and other government agencies on which our operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed or approved by necessary government agencies, which would adversely affect our business. If a prolonged government shutdown or other disruption occurs, or if global health or other concerns prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities in a timely manner, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Further, future government shutdowns or delays could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

Separately, in response to the COVID-19 pandemic, the FDA announced its intention to postpone most inspections of foreign and domestic manufacturing facilities at various points. Even though the FDA has since resumed standard inspection operations of domestic facilities, if a prolonged government shutdown occurs, either for global health related reasons or other reasons, preventing the FDA or other regulatory authorities from conducting business as usual or conducting inspections, reviews or other regulatory activities, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material effect on our business.

We may face difficulties from changes to current regulations and future legislation. Healthcare legislative measures aimed at reducing healthcare costs may have a material adverse effect on our business and results of operations.

The United States and many foreign jurisdictions have enacted or proposed legislative and regulatory changes affecting the healthcare system that could prevent or delay marketing approval of our product candidates or any future product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell a product for which we obtain marketing approval. Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example:

- changes to our manufacturing arrangements;
- additions or modifications to product labeling;
- the recall or discontinuation of our products; or
- additional record-keeping requirements, if any such changes were to be imposed on us, could adversely affect the operation of our business.

LNZ100, if approved, will be directed to the out-of-pocket, cash-pay market in the United States, which we believe makes the market less sensitive to changes in insurance coverage and reimbursement. That said, changes in healthcare legislation and healthcare cost containment measures could impact the pricing of other products and procedures that compete with LNZ100, which can indirectly impact our pricing strategy and profitability. If a competitor treatment is covered by health plans or has more favorable pricing for consumers, the pricing of LNZ100 may be negatively impacted, which could have a material adverse effect on our ability to generate revenue and to

attain profitability. Additionally, the out-of-pocket, cash-pay market for our patient population may be negatively impacted by other price increases and market conditions, including rising costs of other consumer goods, which patients may prioritize over any product candidates we may commercialize.

In the United States, there have been and continue to be a number of legislative initiatives to contain healthcare costs. For example, in 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (collectively, the "ACA"), was passed, which substantially changed the way healthcare is financed by both governmental and private insurers, and significantly impacted the U.S. pharmaceutical industry. The ACA contained provisions that may reduce the profitability of drug products through, among other things, increased rebates for drugs reimbursed by Medicaid programs, extension of Medicaid rebates to Medicaid managed care plans, mandatory discounts for certain Medicare Part D beneficiaries and annual fees based on pharmaceutical companies' share of sales to federal health care programs.

There has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. In August 2022, Congress passed the Inflation Reduction Act of 2022 (the "IRA"), which includes prescription drug provisions that have significant implications for the pharmaceutical industry and Medicare beneficiaries, including allowing the federal government to negotiate a maximum fair price for certain high-priced single source Medicare drugs, imposing penalties and excise tax for manufacturers that fail to comply with the drug price negotiation requirements, requiring inflation rebates for all Medicare Part B and Part D drugs, with limited exceptions, if their drug prices increase faster than inflation, and redesigning Medicare Part D to reduce out-of-pocket prescription drug costs for beneficiaries, among other changes. HHS has and will continue to issue and update guidance as these programs are implemented. On August 29, 2023, CMS announced the list of the first ten drugs that will be subject to price negotiations. However, various industry stakeholders, including pharmaceutical companies, the U.S. Chamber of Commerce, and the Pharmaceutical Research and Manufacturers of America, have initiated lawsuits against the federal government asserting that the price negotiation provisions of the IRA are unconstitutional. The impact of these judicial challenges as well as future legislative, executive, and administrative actions and any future healthcare measures and agency rules implemented by the government on our company and the pharmaceutical industry as a whole is unclear. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our product candidates if approved.

In addition, President Biden has issued multiple executive orders that have sought to reduce prescription drug costs. In February 2023, HHS also issued a proposal in response to an October 2022 executive order from President Biden that includes a proposed prescription drug pricing model that will test whether targeted Medicare payment adjustments will sufficiently incentivize manufacturers to complete confirmatory trials for drugs approved through FDA's accelerated approval pathway. Further, in response to the Biden administration's October 2022 executive order, on February 14, 2023, HHS released a report outlining three new models for testing by the CMS Innovation Center which will be evaluated on their ability to lower the cost of drugs, promote accessibility, and improve quality of care. It is unclear whether the models will be utilized in any health reform measures in the future. Although a number of these and other proposed measures may require authorization through additional legislation to become effective, and the Biden administration may reverse or otherwise change these measures, both the Biden administration and Congress have indicated that they will continue to seek new legislative measures to control drug costs.

At the state level, individual states are increasingly aggressive in passing legislation and implementing regulations designed to control prescription drug pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. A number of states are considering or have recently enacted state drug price transparency and reporting laws that could substantially increase our compliance burdens and expose us to greater liability under such state laws once we begin commercialization after obtaining regulatory approval for any of our products. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

Our revenue prospects could be affected by changes in healthcare spending and policy in the United States and abroad. We operate in a highly regulated industry and new laws, regulations or judicial decisions, or new interpretations of existing laws, regulations or decisions, related to healthcare availability, the method of delivery or payment for healthcare products and services could negatively impact our business, operations and financial condition.

There have been, and likely will continue to be, legislative and regulatory proposals at the foreign, federal, and state levels directed at broadening the availability of healthcare and containing or lowering the cost of healthcare. We cannot predict the initiatives that may be adopted in the future. The continuing efforts of the government, insurance companies, managed care organizations, and other payors of healthcare services to contain or reduce costs of healthcare or impose price controls may adversely affect:

- the demand for our product candidates, if we obtain regulatory approval;
- our ability to set a competitive price that we believe is fair for our products;
- our ability to generate revenue and achieve or maintain profitability;
- the level of taxes that we are required to pay; and
- the availability of capital.

The implementation of cost containment measures or other healthcare reforms may lower the pricing of competitor products or procedures, which in turn may constrain the pricing of our product candidates, if approved, and prevent us from being able to generate revenue, attain profitability or commercialize our product candidates.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for biotechnology products. We cannot be sure to what extent the trajectory of these legislative and regulatory proposals will be implemented by the federal and state governments, whether additional legislative changes will be enacted, whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

We may be subject to federal and state healthcare fraud and abuse laws, false claims laws, transparency laws, and health information privacy and security laws, which could expose us to, among other things, criminal sanctions, civil penalties, contractual damages, reputational harm, administrative burdens, and diminished profits and future earnings.

Although we expect that LNZ100, if approved, will be directed to the out-of-pocket, cash-pay market in the United States, our current and future arrangements with healthcare professionals, clinical investigators, CROs, and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our products for which we obtain marketing approval.

The laws that may affect our ability to operate include, but are not limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe, or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, either the referral of an individual, or the purchase, lease, order or recommendation of any good, facility, item or service for which payment may be made, in whole or in part, under a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. There are a number of statutory exceptions and regulatory safe harbors protecting some common activities from prosecution, but the exceptions and safe harbors are drawn narrowly and require strict compliance in order to offer protection.

Violations are subject to civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment, and exclusion from government healthcare programs.

- federal civil and criminal false claims laws, including the False Claims Act ("FCA"), which can be enforced through civil "qui tam" or "whistleblower" actions, and civil monetary penalty laws, impose criminal and civil penalties against individuals or entities for, among other things, knowingly presenting, or causing to be presented, claims for payment or approval from Medicare, Medicaid, or other federal health care programs that are false or fraudulent; knowingly making or causing a false statement material to a false or fraudulent claim or an obligation to pay money to the federal government; or knowingly concealing or knowingly and improperly avoiding or decreasing such an obligation. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the FCA. The FCA also permits a private individual acting as a "whistleblower" to bring actions on behalf of the federal government alleging violations of the FCA and to share in any monetary recovery. When an entity is determined to have violated the federal civil FCA, the government may impose civil fines and penalties for each false claim, plus treble damages, and exclude the entity from participation in Medicare, Medicaid and other federal healthcare programs.

- the federal Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations, or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false statements in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity can be found guilty of violating HIPAA without actual knowledge of the statute or specific intent to violate it.

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 ("HITECH"), and their respective implementing regulations, which impose requirements on certain covered healthcare providers, health plans, and healthcare clearinghouses as well as their respective business associates and their subcontractors that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information without appropriate authorization. HITECH also created new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys' fees and costs associated with pursuing federal civil actions.

- the federal Physician Payments Sunshine Act, created under the ACA and its implementing regulations, which require manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report annually to CMS information related to payments or other transfers of value made to covered recipients, including physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), certain non-physician healthcare professionals (such as physician assistants and nurse practitioners, among others), and teaching hospitals, as well as information regarding ownership and investment interests held by physicians and their immediate family members.

- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers.

- analogous state and foreign laws and regulations, such as state and foreign anti-kickback, false claims, consumer protection, and unfair competition laws which may apply to pharmaceutical business practices, including but not limited to, research, distribution, sales and marketing arrangements as well as submitting

claims involving healthcare items or services reimbursed by any third-party payor, including commercial insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government that otherwise restricts payments that may be made to healthcare providers and other potential referral sources; state laws that require drug manufacturers to file reports with states regarding pricing and marketing information, such as the tracking and reporting of gifts, compensations and other remuneration and items of value provided to healthcare professionals and entities; state and local laws requiring the registration of pharmaceutical sales representatives; and state and foreign laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Because of the breadth of these laws and the narrowness of available statutory exceptions and regulatory safe harbors, it is possible that some of our business activities, including our advisory board arrangements with physicians, some of whom receive stock or stock options as compensation for services provided, and any sales and marketing activities after a product candidate has been approved for marketing in the United States, could be subject to legal challenge and enforcement actions. If our operations are found to be in violation of any of the federal and state laws described above or any other governmental regulations that apply to us, we may be subject to significant civil, criminal, and administrative penalties, including, without limitation, damages, fines, disgorgement, imprisonment, additional reporting obligations and oversight if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Our employees, independent contractors, consultants, commercial collaborators, principal investigators, CROs, suppliers and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk that our employees, independent contractors, consultants, commercial collaborators, principal investigators, CROs, suppliers, and vendors may engage in misconduct or other improper activities. Misconduct by these parties could include failures to comply with FDA regulations, provide accurate information to the FDA, comply with federal and state health care fraud and abuse laws and regulations, accurately report financial information or data, or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the health care industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing, and other abusive practices. 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 information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. It is not always possible to identify and deter misconduct by these parties, 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 comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant penalties, including civil, criminal and administrative penalties, damages, fines, disgorgement, imprisonment, integrity oversight and reporting obligations, contractual damages, reputational harm, diminished profits and future earnings, and the curtailment or restructuring of our operations.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment, and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological and radioactive materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any

resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties. Although we maintain workers' compensation insurance to cover our company for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or commercialization efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

We are subject to certain U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations and can face serious consequences for violations.

Among other matters, U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations, which are collectively referred to as Trade Laws, prohibit companies and their employees, agents, clinical research organizations, legal counsel, accountants, consultants, contractors, and other partners from authorizing, promising, offering, providing, soliciting, or receiving directly or indirectly, corrupt or improper payments or anything else of value to or from recipients in the public or private sector. Violations of trade laws can result in substantial criminal fines and civil penalties, imprisonment, the loss of trade privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. We also expect our non-U.S. activities to increase over time. We plan to engage third parties for clinical trials or to obtain necessary permits, licenses, patent registrations, and other regulatory approvals and we can be held liable for the corrupt or other illegal activities of our personnel, agents, or partners, even if we do not explicitly authorize or have prior knowledge of such activities.

Risks Related to our Reliance on Third Parties

We contracted with third parties for the manufacture of our product candidates for our clinical trials for LNZ100, and expect to continue to do so for any additional clinical trials and ultimately for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of LNZ100 or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not currently have the infrastructure or internal capability to manufacture supplies of LNZ100 for use in development and commercialization. We relied on third-party manufacturers for the production of our product candidates for our clinical trials under the guidance of members of our organization, and would expect to continue to do so for any additional clinical trials. Furthermore, the raw materials for our product candidates are sourced, in some cases, from a single-source supplier. For any future clinical trials, if we were to experience an unexpected loss of supply of LNZ100 or any of our future product candidates for any reason, whether as a result of manufacturing, supply or storage issues or otherwise, we could experience delays, disruptions, suspensions or terminations of, or be required to restart or repeat, any such clinical trials.

We also expect to continue to rely on third-party manufacturers for the commercial supply of LNZ100 if we obtain marketing approval. We may be unable to maintain or establish required agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- the failure of the third party to manufacture LNZ100 according to our schedule, or at all, including if our third-party contractors give greater priority to the supply of other products over the supply of LNZ100 or otherwise do not satisfactorily perform according to the terms of the agreements between us and them;
- the reduction or termination of production or deliveries by suppliers, or the raising of prices or renegotiation of terms;

- the termination or nonrenewal of arrangements or agreements by our third-party contractors at a time that is costly or inconvenient for us;
- the breach by the third-party contractors of their agreements with us;
- the failure of third-party contractors to comply with applicable regulatory requirements;
- the failure of the third party to manufacture LNZ100 according to our specifications;
- the mislabeling of clinical supplies for any future clinical trials we conduct, potentially resulting in the wrong dose amounts being supplied or active drug or placebo not being properly identified;
- clinical supplies not being delivered to clinical sites on time for any future clinical trials we conduct,, leading to clinical trial interruptions, or drug supplies not being distributed to commercial vendors in a timely manner, resulting in lost sales; and
- the misappropriation of our proprietary information, including our trade secrets and know-how.

We do not have complete control over all aspects of the manufacturing process of, and are dependent on, our contract manufacturing partners for compliance with cGMP regulations for manufacturing both active drug substances and finished drug products. Third-party manufacturers may not be able to comply with cGMP regulations or similar regulatory requirements outside of the United States. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA, EMA or others, we will not be able to secure and/or maintain marketing approval for our manufacturing facilities. In addition, we do not have control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA, EMA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of LNZ100 or any future product candidates we may seek to develop, or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain marketing approval for, or market LNZ100 or any such product candidates, if approved. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or drugs, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our product candidates or drugs and harm our business and results of operations. Our current and anticipated future dependence upon others for the manufacture of LNZ100 may adversely affect our future profit margins and our ability to commercialize LNZ100, if approved, on a timely and competitive basis.

The manufacture of drugs is complex and our third-party manufacturers may encounter difficulties in production. If any of our third-party manufacturers encounter such difficulties, our ability to provide adequate supply of LNZ100 for patients, if approved, could be delayed or prevented.

Manufacturing drugs, especially in large quantities, is complex and may require the use of innovative technologies. Each lot of an approved drug product must undergo thorough testing for identity, strength, quality, purity, potency, and stability. Manufacturing drugs requires facilities specifically designed for and validated for this purpose, and sophisticated quality assurance and quality control procedures are necessary. Slight deviations anywhere in the manufacturing process, including filling, labeling, packaging, storage and shipping and quality control and testing, may result in lot failures, product recalls or spoilage. When changes are made to the manufacturing process, we may be required to provide preclinical and clinical data showing the comparable identity, strength, quality, purity or potency of the products before and after such changes. If microbial, viral or other contaminations are discovered at the facilities of our manufacturer, such facilities may need to be closed for an extended period of time to investigate and remedy the contamination, which could adversely harm our business. If our manufacturers are unable to produce sufficient quantities for any future clinical trials or for commercialization as a result of these challenges, or otherwise, our development and commercialization efforts would be impaired, which would have an adverse effect on our business, financial condition, results of operations and growth prospects.

We have relied, and expect to continue to rely on third parties, including independent clinical investigators and CROs, to conduct, supervise and monitor certain aspects of our clinical trials and any future preclinical studies. If these third parties do not successfully carry out their contractual duties, comply with applicable regulatory requirements or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our product candidates, or such approval or commercialization may be delayed, and our business could be substantially harmed.

We have relied upon and plan to continue to rely upon third parties, including independent clinical investigators and third-party CROs, to conduct certain aspects of our prior preclinical studies and clinical trials and to monitor and manage data for our ongoing clinical programs and any future preclinical studies or clinical trials.

We rely on these parties for execution of our trials, and generally do not control their activities. Nevertheless, we are responsible for ensuring that each of our studies and trials is conducted in accordance with the applicable clinical investigation plan and protocol, legal, regulatory and scientific standards, and our reliance on these third parties does not relieve us of our regulatory responsibilities. We and our third-party contractors and CROs are required to comply with GCP requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for all of our product candidates in clinical development. Regulatory authorities enforce these GCPs through periodic inspections of trial sponsors, principal investigators and trial sites. If we or any of these third parties or our CROs fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials comply or, with respect to completed clinical trials, complied with GCP regulations. In addition, our clinical trials must be conducted with product produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process. Moreover, our business may be adversely affected if any of these third parties violates federal or state fraud and abuse or false claims laws and regulations or healthcare privacy and security laws.

Further, these investigators and CROs are not our employees and we are not able to control, other than by contract, the amount of resources, including time, which they devote to our product candidates and clinical trials. These third parties may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other product development activities, which could affect their performance on our behalf. If independent investigators or CROs fail to devote sufficient resources to the development of our product candidates, if CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced, or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements, or for other reasons, our clinical trials may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenues could be delayed or precluded entirely.

Our CROs have the right to terminate their agreements with us in the event of an uncured material breach. In addition, some of our CROs have an ability to terminate their respective agreements with us if it can be reasonably demonstrated that the safety of the subjects participating in our clinical trials warrants such termination, if we make a general assignment for the benefit of our creditors or if we are liquidated. If any of our relationships with these third parties terminate, we may not be able to timely enter into arrangements with alternative third parties or to do so on commercially reasonable terms, if at all. Switching or adding CROs involves substantial cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we intend to carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition, and prospects.

If any of our relationships with these third-party CROs terminate, we may not be able to enter into arrangements with alternative CROs or to do so on commercially reasonable terms. Switching or adding additional CROs involves

additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Additionally, CROs may lack the capacity to absorb higher workloads or take on additional capacity to support our needs. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter similar challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition, and prospects.

We entered into a collaboration agreement with Ji Xing and depend on Ji Xing to develop and commercialize its products within Greater China. We have limited control over how Ji Xing will conduct development and commercialization activities for LNZ100 or LNZ101.

In April 2022, we entered into the Ji Xing License, pursuant to which we granted Ji Xing an exclusive license to certain of our intellectual property rights to develop, use, import, and sell products containing LNZ100 or LNZ101 ("LNZ Products") for the treatment of presbyopia in humans in mainland China, Hong Kong Special Administrative Region, Macau Special Administrative Region, and Taiwan (collectively, "Greater China") and the first right of negotiation for Ji Xing to license any other product that we develop or commercialize containing aceclidine or brimonidine for uses outside of the treatment of presbyopia in Greater China. Under the terms of the Ji Xing License, we shall refrain from developing or commercializing any competing product, or knowingly enabling a third party to develop or commercialize a product containing aceclidine or brimonidine that would reasonably be expected to result in off-label sales of such products, for the treatment of presbyopia in humans in Greater China.

As a result of the Ji Xing License Agreement, we are dependent upon Ji Xing for the development, regulatory, and commercialization activities for LNZ Products in Greater China, and we have limited control over the amount and timing of resources that Ji Xing devotes to such activities. In addition, payments associated with development, regulatory and commercial milestones that we may be eligible to receive, as well as royalties, will be dependent upon further advancement of LNZ Products by Ji Xing. If these milestones are not met and no LNZ Products are commercialized in Greater China, we will not receive future revenues from the collaboration. Ji Xing may fail to develop or effectively commercialize any LNZ Product for a variety of reasons and the Ji Xing License Agreement subjects us to a number of risks, including:

- Ji Xing may not commit sufficient resources to the development, regulatory approval, marketing, or distribution of any LNZ Product;
- Ji Xing may be unable to successfully complete the clinical development of any LNZ Product or obtain all necessary approvals from foreign regulatory agencies in any of the Greater China territories required to market any LNZ Product;
- Ji Xing may develop or commercialize (or attempt to develop or commercialize) an LNZ Product in a manner that may adversely impact our development or commercialization of either such product candidate and/or future product candidates outside of such collaboration, including for example (1) the risk that any clinical trials conducted by Ji Xing may result in unfavorable safety or efficacy results that negatively impact our ability to obtain regulatory approval of our products in jurisdictions outside Greater China and (2) the risk that, if approved and commercialized, patients report that the products developed by Ji Xing are not effective, or not effective for long enough, and it negatively impacts our ability to market any products outside Greater China, if approved;
- Ji Xing may not properly maintain our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation;
- Ji Xing may terminate its agreement with us prior to completing development or commercialization of any LNZ Product under the collaboration, in whole or in part, adversely impacting the potential approval and our revenue from the licensed product;
- Ji Xing may fail to manufacture any applicable LNZ Product in compliance with requirements of applicable foreign regulatory agencies and in commercial quantities sufficient to meet market demand;

- there may be disputes between us and Ji Xing, including disagreements regarding the Ji Xing License Agreement, that may result in (1) the delay or prevention of the achievement of development, regulatory and commercial objectives that would result in milestone payments, (2) the delay or termination of the development or commercialization of any LNZ Product in Greater China, costly litigation or arbitration that diverts our management's attention and resources and/or termination of the underlying agreement;

- Ji Xing may not comply with applicable regulatory guidelines with respect to developing or commercializing any LNZ Product, which could adversely impact the development of or sales thereof, either in Greater China or (depending on the scope of the noncompliant activities) by us in other jurisdictions, and could result in administrative or judicially imposed sanctions, including warning letters, civil and criminal penalties, injunctions, product seizures or detention, product recalls, total or partial suspension of production and refusal to approve any new drug applications;

- Ji Xing may experience financial difficulties; and

business combinations or significant changes in the business strategy of Ji Xing may also adversely affect its ability to perform its obligations under its license agreement with us.

If Ji Xing does not perform in the manner we expect or fulfill its responsibilities in a timely manner, or at all, the development, regulatory approval, and commercialization efforts related to an LNZ Product in Greater China could be delayed and it may be necessary for us to either assume the responsibility at our own expense for the development of LNZ100 or LNZ101 in Greater China or seek out a different collaboration partner for such efforts. In that event, our potential to generate future revenues from the Greater China region could be significantly reduced and our business could be materially and adversely harmed.

Risks Related to our Business Operations

Our success is highly dependent on our ability to attract and retain highly skilled executive officers and employees.

To succeed, we must recruit, retain, manage and motivate qualified executives as we build out the management team, and we face significant competition for experienced personnel. We are highly dependent on the principal members of our management and need to add executives with operational and commercialization experience as we plan for commercialization of our product candidates and build out a leadership team that can manage our operations as a public company. If we do not succeed in attracting and retaining qualified personnel, particularly at the management level, it could adversely affect our ability to execute our business plan and harm our operating results. In particular, the loss of one or more of our executive officers could be detrimental to us if we cannot recruit suitable replacements in a timely manner. The competition for qualified personnel in the biotechnology field is intense and as a result, we may be unable to continue to attract and retain qualified personnel necessary for the future success of our business. We could, in the future, have difficulty attracting experienced personnel and may be required to expend significant financial resources in employee recruitment and retention efforts.

Many of the other biotechnology 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 also may provide more diverse opportunities and better prospects for career advancement. Some of these characteristics may be more appealing to high-quality candidates than what we have to offer. If we are unable to continue to attract and retain high-quality personnel, the rate and success at which we can discover, develop and commercialize our product candidates will be limited and the potential for successfully growing our business will be harmed.

If we engage in acquisitions, in-licensing or strategic partnerships, this may increase our capital requirements, dilute our stockholders, cause us to incur debt or assume contingent liabilities and subject us to other risks.

We may engage in various acquisitions and strategic partnerships in the future, including licensing or acquiring complementary products, intellectual property rights, technologies or businesses. Any acquisition or strategic partnership may entail numerous risks, including:

- increased operating expenses and cash requirements;
- the assumption of indebtedness or contingent liabilities;
- the issuance of equity securities which would result in dilution to our stockholders;
- assimilation of operations, intellectual property, products and product candidates of an acquired company, including difficulties associated with integrating new personnel;
- the diversion of management's attention from our existing product candidates and initiatives in pursuing such an acquisition or strategic partnership;
- retention of key employees, the loss of key personnel, and uncertainties in our ability to maintain key business relationships;
- risks and uncertainties associated with the other party to such a transaction, including the prospects of that party and their existing products or product candidates and regulatory approvals; and
- our inability to generate revenue from acquired intellectual property, technology and/or products sufficient to meet our objectives or even to offset the associated transaction and maintenance costs.

In addition, if we undertake such a transaction, we may incur large one-time expenses and acquire intangible assets that could result in significant future amortization expense.

We expect to significantly expand our organization, including building sales and marketing capability and creating additional infrastructure to support our operations as a public company, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of sales and marketing and finance and accounting. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and our limited experience in managing such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert or stretch our management and business development resources in a way that we may not anticipate. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

We could be subject to securities class action litigation, which is expensive and could divert management attention.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because pharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business, operating results, or financial condition.

Our business and operations would suffer in the event of system failures.

Our computer systems, as well as those of our contractors and consultants, are vulnerable to damage from computer viruses, unauthorized access, natural disasters (including hurricanes), terrorism, war and

telecommunication and electrical failures. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our product candidate development programs. For example, the loss of preclinical study or clinical trial data from completed, ongoing or planned trials could result in delays in regulatory approval efforts and significantly increase costs to recover or reproduce the data. To the extent that any disruption or security breach were to result in a loss of or damage to our data or applications, or inappropriate disclosure of personal, confidential or proprietary information, we could incur liability and the further development of our product candidates could be delayed.

The secure processing, maintenance and transmission of this information is critical to our operations. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or internal bad actors, or breached due to employee error, a technical vulnerability, malfeasance or other disruptions. Although, to our knowledge, we have not experienced any such material security breach to date, any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, significant regulatory penalties, and such an event could disrupt our operations, damage our reputation, and cause a loss of confidence in us and our ability to conduct clinical trials, which could adversely affect our reputation and delay clinical development of our product candidates.

Risks Related to Our Common Stock

An active trading market for our common stock may never develop or be sustained.

Prior to the Merger, there was no public trading market for LENZ OpCo common stock. Although our common stock is listed on the Nasdaq Global Select Market, if an active trading market does not develop, or develops but is not maintained, you may have difficulty selling any of our common stock due to the limited public float. We cannot predict the prices at which our common stock will trade. It is possible that in one or more future periods our results of operations and progression of our product pipeline may not meet the expectations of public market analysts and investors, and, as a result of these and other factors, the price of our common stock may fall. Accordingly, we cannot assure you of your ability to sell your shares of our common stock when desired or at prices at or above the price you paid for your shares or at all.

The market price of our common stock is expected to be volatile, and the market price of the common stock may drop following the Merger.

The market price of our common stock following the Merger could be subject to significant fluctuations. Some of the factors that may cause the market price of our common stock to fluctuate include:

- price and volume fluctuations in the overall stock market from time to time;
- the timing and results of clinical trials for LNZ100 and any future product candidates that we may develop;
- our ability to obtain regulatory approvals for LNZ100 any any future product candidates that we may develop, and any delays or failures to obtain such approvals
- commencement or termination of collaborations for our product development and research programs;
- failure to achieve development, regulatory or commercialization milestones under our collaborations;
- failure or discontinuation of any of our product development and research programs;
- results of preclinical studies, clinical trials or regulatory approvals of product candidates of our competitors, or announcements about new research programs or product candidates of our competitors;
- the level of expenses related to any of our research programs, clinical development programs or product candidates that we may develop;
- the results of our efforts to develop additional product candidates or products;

- regulatory actions with respect to our products or those of our competitors;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- announced or completed acquisitions of businesses, products or intellectual property by us or our competitors;
- actual or anticipated changes in the financial projections or development timelines we may provide to the public or our failure to meet those projections or timelines;
- market conditions in the biotechnology, pharmaceutical and ophthalmology sectors;
- changes in the structure of healthcare payment systems;
- sales of shares of our common stock by us or our stockholders, or expectations that such sales may occur, and the expiration of market stand-off or lock-up agreements;
- the recruitment or departure of key personnel;
- the public's reaction to our press releases, other public announcements, and filings with the SEC;
- rumors and market speculation involving us or other companies in our industry;
- fluctuations in the trading volume of our shares or the size of our public float;
- actual or anticipated changes or fluctuations in our results of operations;
- actual or anticipated developments in our business, our competitors' businesses, or changes in the market valuations of similar companies and the competitive landscape generally;
- changes in the market valuations of similar companies;
- failure of securities analysts to maintain coverage of us, changes in actual or future expectations of investors or securities analysts, or our failure to meet these estimates or the expectations of investors;
- litigation involving us, our industry or both;
- governmental or regulatory actions or audits;
- regulatory or legal developments in the United States and other countries;
- general economic conditions and trends;
- announcement or expectation of additional financing efforts;
- sales of securities by us or our securityholders in the future;
- if we do not achieve the perceived benefits of the Merger as rapidly or to the extent anticipated by financial or industry analysts; and
- changes in accounting standards, policies, guidelines, interpretations, or principles.

Moreover, the stock markets in general have experienced substantial volatility that has often been unrelated to the operating performance of individual companies. These broad market fluctuations may also adversely affect the trading price of our common stock. In addition, a recession, depression or other sustained adverse market event could materially and adversely affect our business and the value of our common stock. In the past, following periods of volatility in the market price of a company's securities, stockholders have often instituted class action securities litigation against such companies. Furthermore, market volatility may lead to increased shareholder activism if we experience a market valuation that activists believe is not reflective of our intrinsic value. Activist campaigns that

contest or conflict with our strategic direction or seek changes in the composition of our board of directors could have an adverse effect on our operating results, financial condition and cash flows.

Our board of directors is authorized to issue and designate shares of our convertible preferred stock in additional series without stockholder approval.

Our amended and restated certificate of incorporation authorizes our board of directors, without the approval of our stockholders, to issue shares of convertible preferred stock, subject to limitations prescribed by applicable law, rules and regulations and the provisions of our amended and restated certificate of incorporation, as shares of convertible preferred stock in series, to establish from time to time the number of shares to be included in each such series and to fix the designation, powers, preferences and rights of the shares of each such series and the qualifications, limitations or restrictions thereof. The powers, preferences and rights of these additional series of convertible preferred stock may be senior to or on parity with our common stock, which may reduce its value.

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

We are an emerging growth company, as defined in the JOBS Act enacted in April 2012. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended (the "Sarbanes-Oxley Act"), reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements, and exemptions from the requirements of holding nonbinding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the closing of Graphite's initial public offering, (b) in which we have total annual gross revenue of at least $1.235 billion, or (c) in which we are deemed to be a large accelerated filer, which requires, among other things, that the market value of our common stock that is held by non-affiliates to exceed $700 million as of the prior June 30th, and (2) the date on which we have issued more than $1 billion in non-convertible debt during the prior three-year period.

Even after we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company," which would allow us to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act (if we are also a non-accelerated filer at that time) and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. It cannot be predicted if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. It is expected that we will elect to use this extended transition period under the JOBS Act. 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 comparison of our financials to those of other public companies more difficult. As a result, changes in rules of U.S. generally accepted accounting principles or their interpretation, the adoption of new guidance, or the application of existing guidance to changes in our business could significantly affect our financial position and results of operations.

Once we are no longer an emerging growth company, a smaller reporting company or otherwise no longer qualify for applicable exemptions, we will be subject to additional laws and regulations affecting public companies that will increase our costs and the demands on management and could harm our operating results and cash flows.

We are subject to the reporting requirements of the Exchange Act, which requires, among other things, that we file with the SEC, annual, quarterly and current reports with respect to our business and financial condition as well as other disclosure and corporate governance requirements. However, as an emerging growth company, we may take advantage of exemptions from various requirements such as an exemption from the requirement to have our independent auditors attest to our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002 as well as an exemption from the "say on pay" voting requirements pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010. We will no longer qualify as an emerging growth company after December 31, 2026 (or upon such earlier time as we no longer meet the other applicable requirements). After we no longer qualify as an emerging growth company, we may still qualify as a "smaller reporting company," as such term is defined in Rule 12b-2 under the Exchange Act, which may allow us to take advantage of many of the same exemptions from disclosure requirements, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in this prospectus and in our periodic reports and proxy statements. Once we are no longer an emerging growth company or a smaller reporting company or otherwise no longer qualifies for these exemptions, we will be required to comply with these additional legal and regulatory requirements applicable to public companies and will incur significant legal, accounting and other expenses to do so. If we are not able to comply with the requirements in a timely manner or at all, our financial condition or the market price of our common stock may be harmed. For example, if we or our independent auditor identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, we could face additional costs to remedy those deficiencies, the market price of our stock could decline or we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

If we fail to maintain proper and effective internal controls, our ability to produce accurate financial statements on a timely basis could be impaired.

We are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act and the rules and regulations of Nasdaq. The Sarbanes-Oxley Act requires, among other things, that we maintain effective disclosure controls and procedures and internal control over financial reporting. We must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal controls over financial reporting in our Annual Report on Form 10-K filing for that year, as required by Section 404 of the Sarbanes-Oxley Act. As a private company, LENZ OpCo was not required to test its internal controls within a specified period. Doing so will require that we incur substantial professional fees and internal costs to expand our accounting and finance functions and that we expend significant management efforts. We may experience difficulty in meeting these reporting requirements in a timely manner.

We may discover weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act, or if we are unable to maintain proper and effective internal controls, we may not be able to produce timely and accurate financial statements. If that were to happen, the market price of our common stock could decline and we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities.

Our certificate of incorporation and bylaws and provisions under Delaware law could make an acquisition of us more difficult and may prevent attempts by our stockholders to replace or remove our management.

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

- authorize "blank check" preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- create a classified board of directors whose members serve staggered three-year terms;
- specify that special meetings of our stockholders can be called only by our board of directors;
- prohibit stockholder action by written consent;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;
- 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;
- provide that our directors may be removed (i) only for cause and (ii) only by the affirmative vote of the holders of 75% or more of the outstanding shares of capital stock then entitled to vote at an election of directors;
- expressly authorize our board of directors to make, alter, amend or repeal our amended and restated bylaws; and
- require supermajority votes of the holders of our common stock to amend specified provisions of our amended and restated certificate of incorporation and amended and restated bylaws; however, if our board of directors recommends that the stockholders approve the amendment at a meeting of stockholders, the amendment shall only require the affirmative vote of the majority of the outstanding shares of capital stock entitled to vote on such amendment.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the DGCL, which prohibits stockholders owning in excess of 15% of the outstanding voting stock from merging or combining with us. Although we believe these provisions collectively will provide for an opportunity to receive higher bids by requiring potential acquirors to negotiate with our board of directors, they would apply even if the offer may be considered beneficial by some stockholders. In addition, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove then current management by making it more difficult for stockholders to replace members of the board of directors, which is responsible for appointing the members of management.

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, certain designated courts will be the sole and exclusive forum for certain legal actions between us and our stockholders, which could limit stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or agents.

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for the following types of actions or

proceedings under Delaware statutory or common law: (i) any derivative action or proceeding brought on the company's behalf; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our current or former directors, officers or employees to the company or its stockholders; (iii) any action asserting a claim arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or our bylaws (including their interpretation, validity or enforceability); or (iv) any action asserting a claim governed by the internal affairs doctrine. Unless we consent in writing to the selection of an alternate forum, the United States federal district courts shall be the sole and exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. In addition, our bylaws provide that any person or entity purchasing or otherwise acquiring any interest in shares of our capital stock is deemed to have notice of and consented to these exclusive forum provisions. The forum selection provisions in our bylaws may limit our stockholders' ability to litigate disputes with us in a judicial forum that they find favorable for disputes with us or our directors, officers or employees, which may discourage the filing of lawsuits against the company and its directors, officers and employees, even though an action, if successful, might benefit the company's stockholders. In addition, these forum selection provisions may impose additional litigation costs for stockholders who determine to pursue any such lawsuits against the company or its directors, officers or employees.

Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Our certificate of incorporation and bylaws provide that we will indemnify our directors and officers, in each case to the fullest extent permitted by Delaware law. In addition, as permitted by Section 145 of the Delaware General Corporation Law, our bylaws and the indemnification agreements that we plan to enter into with our directors and officers provide that:

- We may, at our discretion, indemnify employees and agents in those circumstances where indemnification is permitted by applicable law;
- We are required to advance expenses, as incurred, to our directors and officers in connection with defending a proceeding, except that such directors or officers shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification;
- We are not obligated pursuant to our bylaws to indemnify a person with respect to proceedings initiated by that person against us or our other indemnitees, except with respect to proceedings authorized by our board of directors or brought to enforce a right to indemnification;
- The rights conferred in our bylaws are not exclusive, and we are authorized to enter into indemnification agreements with our directors, officers, employees and agents, and to obtain insurance to indemnify such persons; and
- We may not retroactively amend our bylaw provisions to reduce our indemnification obligations to directors, officers, employees, and agents.

We will indemnify our directors and officers for serving us in those capacities or for serving other business enterprises at our request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful.

To the extent that a claim for indemnification is brought by any of our directors or officers, it would reduce the amount of funds available for use in our business.

Transfers of our securities utilizing Rule 144 of the Securities Act may be limited.

A significant portion of our securities are restricted from immediate resale. Holders should be aware that transfers of our securities pursuant to Rule 144 may be limited as Rule 144 is not available, subject to certain exceptions, for the resale of securities initially issued by shell companies (other than business combination related

shell companies) or issuers that have been at any time previously a shell company. The disposal of Graphite's historical assets and operations in connection with the Merger made Graphite subject to the SEC requirements applicable to reporting shell company business combinations. Following the Merger, we are no longer a shell company. As a result, we anticipate that holders will not be able to sell their restricted securities pursuant to Rule 144 without registration until one year after March 22, 2024, the date that we filed the Current Report on Form 8-K following the closing that includes the required Form 10 information that reflects we are no longer a shell company.

The disposal of Graphite's historical assets and operations in connection with the Merger made us subject to the SEC requirements applicable to reporting shell company business combinations. As a result, we will be subject to more stringent reporting requirements, offering limitations, and resale restrictions.

According to SEC guidance, the requirements applicable to reporting shell company business combinations apply to any company that sells or otherwise disposes of its historical assets or operations in connection with or as part of a plan to combine with a non-shell private company in order to convert the private company into a public one. Prior to the completion of the Merger, Graphite had no remaining ongoing development programs and disposed of its legacy technology and intellectual property. As such, we are subject to the SEC requirements applicable to reporting shell company business combinations, which are as follows:

- we were required to file a Form 8-K to report the Form 10 type information after closing of the Merger with the SEC reflecting our status as an entity that is not a shell company;
- we will not be eligible to use a Form S-3 until 12 full calendar months after closing of the Merger;
- we will need to wait at least 60 calendar days after closing of the Merger to file a Form S-8;
- we will be an "ineligible issuer" for three years following the closing of the Merger, which will prevent us from (i) incorporating by reference in our Form S-1 filings, (ii) using a free writing prospectus, or (iii) taking advantage of the well-known seasoned issuer (WKSI) status regardless of our public float;
- investors who (i) were affiliates of LENZ OpCo or Graphite at the time the Merger was submitted for the vote or consent of the respective company's stockholders, (ii) received securities in the Merger (i.e., Rule 145(c) securities) and (iii) publicly offer or sell such securities will be deemed to be engaged in a distribution of such securities, and therefore to be underwriters with respect to resales of those securities, and accordingly such securities may not be included in any resale registration statement unless such securities are sold only in a fixed price offering in which such investors are named as underwriters in the prospectus; and
- Rule 144(i)(2) will limit the ability to publicly resell Rule 145(c) securities per Rule 145(d), as well as any other "restricted" or "control" securities per Rule 144 until one year after the Form 10 information is filed with the SEC.

The foregoing SEC requirements will increase our time and cost of raising capital, offering stock to under equity plans, and compliance with securities laws. Further, such requirements will add burdensome restrictions on the resale of our shares by affiliates and any holders of "restricted" or "control" securities.

If equity research analysts do not publish research or reports, or publish unfavorable research or reports, about us, our business, or our market, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that equity research analysts publish about us and our business. Equity research analysts may elect to not provide research coverage of our common stock after the completion of the Merger, and such lack of research coverage may adversely affect the market price of our common stock. In the event we do have equity research analyst coverage, we will not have any control over the analysts or the content and opinions included in their reports. The price of our common stock could decline if one or more equity research analysts downgrade our stock or issue other unfavorable commentary or research. If one or more equity research analysts cease coverage of us or fail to publish reports on us regularly,

demand for our common stock could decrease, which in turn could cause our stock price or trading volume to decline.

We may be subject to adverse legislative or regulatory tax changes that could negatively impact our financial condition.

The rules dealing with U.S. federal, state, and local income taxation are constantly under review by persons involved in the legislative process and by the Internal Revenue Service and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application) could adversely affect us or our stockholders. For example, the United States recently enacted the Inflation Reduction Act of 2022, which implements, among other changes, a 1% excise tax on certain stock buybacks. In addition, beginning in 2022, the Tax Cuts and Jobs Act of 2017 (the "Tax Act") eliminated the option to deduct research and development expenditures and required taxpayers to amortize them generally over five (for R&D performed in the United States) or fifteen years (for R&D performed outside the United States). We will assess the impact of various tax reform proposals in all jurisdictions where we have operations to determine the potential effect on our business and any assumptions we will make about our future taxable income. We cannot predict whether any specific proposals will be enacted, the terms of any such proposals or what effect, if any, such proposals would have on our business if they were to be enacted. Such changes, among others, may adversely affect our effective tax rate, results of operation, and general business condition.

Our ability to use net operating loss carryforwards and other tax attributes may be limited, including those obtained as a result of the Merger.

At December 31, 2023, LENZ OpCo had federal and state net operating loss ("NOL") carryforwards of $18.1 million and $17.9 million, respectively. The federal NOL carryforwards of $18.1 million may be carried forward indefinitely. State NOL carryforwards totaling $17.2 million begin to expire in 2040, unless previously utilized, and $0.6 million that carryforward indefinitely. In addition, LENZ OpCo also had federal and state R&D credit carryforwards totaling $6.5 million and $0.5 million, respectively. The federal R&D credit carryforwards will begin to expire in 2040 unless previously utilized. $0.1 million of the state R&D credit carryforwards will begin to expire in 2037 unless previously utilized, and the remaining carryforward indefinitely.

At December 31, 2023, Graphite had U.S. federal net operating loss carryforwards of $146.5 million and minimal state net operating loss carryforwards. The federal NOL carryforwards may be carried forward indefinitely. In addition, Graphite also had federal and state R&D credit carryforwards totaling $6.4 million and $4.7 million, respectively. The federal R&D credit carryforwards will begin to expire in 2041 unless previously utilized. The state R&D credit carryforward indefinitely.

Under current law, U.S. federal net operating loss carryforwards generated in taxable periods beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such net operating loss carryforwards is limited to 80% of taxable income for taxable periods beginning after December 31, 2020. Many state jurisdictions conform to federal law for this purpose or have similar provisions that limit the deductibility of state net operating loss carryfowards in a taxable period. In addition, under Sections 382 and 383 of the Code, U.S. federal net operating loss carryforwards and other tax attributes may become subject to an annual limitation in the event of certain cumulative changes in ownership. An "ownership change" pursuant to Section 382 of the Code generally occurs if one or more stockholders or groups of stockholders who own at least 5% of a company's stock increase their ownership by more than 50 percentage points (by value) over their lowest ownership percentage within a rolling three-year period. We may have experienced such ownership changes in the past, and in connection with the Merger and the PIPE Financing. To the extent we have or will experience an ownership change(s), our ability to utilize our net operating loss carryforwards and other tax attributes to offset future taxable income or tax liabilities may be limited as a result of ownership changes, including, as discussed above, in connection with the Merger and the PIPE Financing or other transactions. Similar rules may apply under state tax laws. If we earn taxable income, such limitations could result in increased future income tax liability to us, and our future cash flows could be adversely affected.

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

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. A severe or prolonged economic downturn could result in a variety of risks to our business, including weakened demand for our product candidates and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption, or cause our customers to delay making payments for our services. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

Certain statements in this prospectus may constitute "forward-looking statements" for purposes of the federal securities laws. Our forward-looking statements include, but are not limited to, statements regarding our or our management team's expectations, hopes, beliefs, intentions or strategies regarding the future, including those relating to the Transactions and their expected benefits; our performance following the Transactions; our plans relating to the clinical development of our product candidates, including the size, number and areas to be evaluated; our plans relating to commercializing our product candidates, if approved, including the geographic areas of focus and strategy; and our ability to obtain funding for its operations. Forward-looking statements include statements relating to our management team's expectations, hopes, beliefs, intentions or strategies regarding the future, including those relating to the Merger and related transactions. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intends," "may," "might," "plan," "possible," "potential," "predict," "project," "should," "will," "would" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking.

These forward-looking statements are based on current expectations and beliefs concerning future developments and their potential effects. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond our control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. As a result of a number of known and unknown risks and uncertainties, our actual results or performance may be materially different from those expressed or implied by these forward-looking statements. Some factors that could cause actual results to differ include, but are not limited to, the following:

- the likelihood of our clinical trials demonstrating safety and efficacy of our product candidates to the satisfaction of the FDA, and other positive results;
- the timing, scope and likelihood of regulatory filings and approvals for LNZ100;
- our ability to obtain and maintain regulatory approval of LNZ100;
- our plans relating to the development of LNZ100;
- the size of the market opportunity for LNZ100, including our estimates of the size of the affected population and potential adoption rate;
- our plans relating to commercializing LNZ100, if approved, including the geographic areas of focus and sales strategy;
- our competitive position and the success of competing therapies that are or may become available;
- the beneficial characteristics, and the potential safety, efficacy and therapeutic effects of LNZ100;
- the need to hire additional personnel and our ability to attract and retain such personnel;
- our plans relating to the further development and manufacturing of LNZ100 and any future product candidates;
- the expected potential benefits of strategic collaborations with third parties and our ability to attract collaborators with development, regulatory and commercialization expertise;
- the rate and degree of market acceptance and clinical utility of LNZ100 and any other product candidates we may develop;

- the impact of existing laws and regulations and regulatory developments in the United States and other jurisdictions;
- our intellectual property position, including the scope of protection we are able to establish and maintain for intellectual property rights covering LNZ100, including the extensions of existing patent terms where available, the validity of intellectual property rights held by third parties, and our ability not to infringe, misappropriate or otherwise violate any third-party intellectual property rights;
- our continued reliance on third parties to conduct any additional clinical trials of LNZ100 or any future product candidates, and for the manufacture of our product candidates for any such trials;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our financial performance;
- costs related to the Merger;
- our ability to recognize the anticipated benefits of the Merger;
- the period over which we estimate our existing cash and cash equivalents will be sufficient to fund our future operating expenses and capital expenditure requirements;
- our expectations regarding the period during which we will remain an emerging growth company under the JOBS Act; and
- our anticipated use of our existing resources and the proceeds from the Transactions.

Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. It is not possible to predict or identify all such risks. We do not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

USE OF PROCEEDS

All of the Securities offered by the selling securityholders pursuant to this prospectus will be sold by the selling securityholders for their respective accounts. We will not receive any of the proceeds from the sale of the Securities hereunder.

With respect to the registration of shares of our Common Stock offered by the selling securityholders pursuant to this prospectus, the selling securityholders will pay any underwriting discounts and commissions and expenses incurred by them for brokerage, accounting, tax or legal services or any other expenses incurred by them in disposing of the Securities. We will bear all other costs, fees and expenses incurred in effecting the registration of the Securities covered by this prospectus, including, without limitation, all registration and filing fees, Nasdaq listing fees, and fees of our counsel and our independent registered public accountants.

MARKET PRICE OF AND DIVIDENDS ON THE REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS

Market Information and Holders

Our Common Stock is currently listed on The Nasdaq Global Select Market ("Nasdaq") under the symbol "LENZ." Prior to the consummation of the Merger, our Common Stock was historically quoted on The Nasdaq Global Market under the symbol "GRPH."

As of March 21, 2024, there were 25,534,458 shares of Common Stock issued and outstanding held of record by approximately 103 holders.

Dividend Policy

In connection with the consummation of the Merger, the Graphite board of directors declared a special cash dividend to its stockholders (the "Special Dividend"), which was paid on March 21, 2024. The Special Dividend was in the amount of $1.03 per share of Graphite's common stock and was payable in cash to the stockholders of record of Graphite as of March 18, 2024 that continued to hold their shares through the ex-dividend date of March 22, 2024. We currently intend to retain all available funds and any future earnings to fund the growth and development of our business. Other than the Special Dividend, we have never declared or paid any cash dividends on our capital stock. We do not intend to pay cash dividends to our stockholders in the foreseeable future. Investors should not purchase our common stock with the expectation of receiving cash dividends.

Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions, and other factors that our board of directors may deem relevant.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

Merger

On November 14, 2023, Graphite Bio, Inc., a Delaware corporation ("Graphite"), entered into an Agreement and Plan of Merger (the "Merger Agreement") by and between Graphite, Generate Merger Sub, Inc., a Delaware corporation and a wholly owned subsidiary of Graphite ("Merger Sub"), and Lenz Therapeutics, Inc., a Delaware corporation ("LENZ"), pursuant to which, Merger Sub merged with and into LENZ, with LENZ continuing as a wholly owned subsidiary of Graphite and the surviving corporation of the merger. On March 21, 2024, Graphite, Merger Sub and LENZ consummated the transactions contemplated by the Merger Agreement, Merger Sub was merged with and into LENZ and LENZ became a wholly owned subsidiary of Graphite (the "merger"). On March 21, 2024, in connection with the transactions contemplated by the Merger Agreement, Graphite (i) effected a reverse stock split of Graphite's common stock, par value $0.00001 per share ("Graphite common stock"), at a ratio of 1:7 (the "reverse stock split"). Unless otherwise noted, the reverse stock split has not been reflected in the historical share and per share disclosures of Graphite. Defined terms used in this "Unaudited Pro Forma Condensed Combined Financial Information" section shall be used as defined in this section.

At the effective time of the merger (the "effective time"),

a) each then-outstanding share of LENZ's common stock, par value $0.001 per share ("LENZ common stock"), was converted into the right to receive a number of shares of Graphite's common stock, par value $0.00001 per share ("Graphite common stock"), based on a ratio calculated in accordance with the Merger Agreement (the "exchange ratio"),

b) each then-outstanding share of LENZ's preferred stock, par value $0.001 per share ("LENZ preferred stock"), was converted into the right to receive a number of shares of Graphite common stock equal to the exchange ratio multiplied by the aggregate number of LENZ common stock into which each share of LENZ preferred stock is then convertible,

c) each then-outstanding option to purchase LENZ common stock was assumed by Graphite, subject to adjustment as set forth in the Merger Agreement and

d) each then-outstanding warrant to purchase shares of LENZ common stock or LENZ preferred stock was converted into a warrant to purchase shares of Graphite common stock, subject to adjustment as set forth in the Merger Agreement.

Concurrently with the closing of the merger, LENZ completed a private placement with certain investors to purchase 3,559,565 shares of LENZ common stock at a price per share of $15.03 per share for an aggregate gross purchase price of $53.5 million. Upon the closing of the merger and in accordance with the terms and conditions of the Merger Agreement, the shares sold in the private placement have the right to receive a number of shares of Graphite common stock based on the exchange ratio. In connection with the private placement, LENZ entered into a registration rights agreement with the private placement investors, pursuant to which LENZ agreed to use commercially reasonably efforts to prepare and file a registration statement with the SEC as soon as practicable following the closing of the merger but in no event later than the 10th day following such closing to register the resale of the shares.

Immediately after the effective time, pre-merger LENZ stockholders owned approximately 65% of the combined company on a fully-diluted basis and pre-merger Graphite stockholders owned approximately 35% of the combined company on a fully-diluted basis (prior to giving effect to the private placement, any exercised options, and excluding any shares reserved for future grants under the 2024 Plan and the 2024 ESPP).

The unexercised and outstanding Graphite stock options at the effective time of the merger with an exercise price per share of equal to or greater than $3.00 (prior to giving effect to the special cash dividend and reverse stock split) accelerated in full as of immediately prior to the effective time and each such stock option not exercised as of immediately prior to the effective time were cancelled at the effective time for no consideration. All Graphite stock options with an exercise price per share of less than $3.00 (prior to giving effect to the special cash dividend and

reverse stock split) will continue to be subject to the same terms and conditions after the effective time as were applicable to such stock option as of immediately prior to the effective time.

In addition, in connection with the closing, Graphite declared a cash dividend to the pre-merger Graphite stockholders of $60.0 million in the aggregate (the "special cash dividend").

Unaudited Pro Forma Condensed Combined Financial Statements

The following unaudited pro forma condensed combined financial information gives effect to the merger, which has been accounted for as a reverse recapitalization under U.S. generally accepted accounting principles ("GAAP"), as well as the private placement and special cash dividend. Graphite only held cash and some nominal assets at the closing. LENZ is considered the accounting acquirer for financial reporting purposes. This determination is based on the facts that, immediately following the merger: (i) LENZ stockholders owned a substantial majority of the voting rights of the combined company; (ii) LENZ designated a majority (five of seven) of the initial members of the board of directors of the combined company; and (iii) LENZ's senior management held all key positions in senior management of the combined company. The transaction is accounted for as a reverse recapitalization of Graphite by LENZ similar to the issuance of equity for the net assets of Graphite, which is primarily cash, short-term investments, and other non-operating assets.

As a result of LENZ being treated as the accounting acquirer, LENZ's assets and liabilities will be recorded at their pre-combination carrying amounts. Graphite's assets and liabilities will be measured and recognized at their fair values as of the effective time, which approximate the carrying value of the acquired cash and other non-operating assets. Any difference between the consideration transferred and the fair value of the net assets of Graphite following determination of the actual purchase consideration for Graphite is reflected as an adjustment to additional paid-in capital. Upon consummation of the merger, the historical financial statements of LENZ became the historical consolidated financial statements of the combined company.

The historical financial information has been adjusted to give effect to pro forma events that are: (1) directly attributable to the merger, (2) factually supportable, and (3) with respect to the unaudited Pro Forma Statement of Operations, expected to have a continuing impact on the combined results. The unaudited pro forma condensed combined balance sheet data assumes that the merger, private placement, and special cash dividend took place on December 31, 2023 and combines the historical balance sheets of Graphite and LENZ as of such date. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2023 assumes that the merger private placement, and special cash dividend took place as of January 1, 2023 and combines the historical results of Graphite and LENZ for the year ended December 31, 2023. The unaudited pro forma condensed combined financial information was prepared pursuant to the rules and regulations of Article 11 of SEC Regulation S-X.

The unaudited pro forma condensed combined financial information is provided for illustrative purposes only, does not necessarily reflect what the actual consolidated results of operations and financial position would have been had the acquisition occurred on the dates assumed and may not be useful in predicting the future consolidated results of operations or financial position.

The unaudited pro forma condensed combined financial information does not give effect to the potential impact of current financial conditions, regulatory matters, progress or changes in product development and strategies, operating efficiencies or other savings or expenses that may be associated with the integration of the two companies. The unaudited pro forma condensed combined financial information, including the notes thereto, should be read in conjunction with the separate historical financial statements of Graphite and LENZ, and their respective management's discussion and analysis of financial condition and results of operations included elsewhere in, or incorporated by reference to, this prospectus.

The accounting policies of Graphite may materially vary from those of LENZ. During preparation of the unaudited pro forma condensed combined financial information, management has performed a preliminary analysis and is not aware of any material differences, and accordingly, this unaudited pro forma condensed combined financial information assumes no material differences in accounting policies. Following the merger, management will conduct a final review of Graphite's accounting policies in order to determine if differences in accounting policies require adjustment or reclassification of Graphite's results of operations or reclassification of assets or

liabilities to conform to LENZ's accounting policies and classifications. As a result of this review, management may identify differences that, when conformed, could have a material impact on these unaudited pro forma condensed combined financial statements.

Unaudited Pro Forma Condensed Combined Balance Sheets
As of December 31, 2023
(In thousands)

	Graphite Bio, Inc. Historical	Lenz Therapeutics, Inc. Historical	Transaction Accounting Adjustments	Notes	Pro Forma Combined
ASSETS					
Current assets:					
Cash and cash equivalents	$ 184,259	$ 35,140	$ 49,462	**A**	$ 208,870
			(59,991)	**I**	
Investments in marketable securities	—	30,654	—		30,654
Restricted cash, current	1,602	—	—		1,602
Prepaid expenses and other current assets	2,160	1,450	(1,116)	**C**	2,494
Total current assets	**188,021**	**67,244**	**(11,645)**		**243,620**
Restricted cash, non-current	114	—	—		114
Property and equipment, net	—	54	—		54
Operating lease right-of-use assets	321	318	—		639
Deferred offering costs	—	2,739	—		2,739
Other assets	—	21	—		21
TOTAL ASSETS	**$ 188,456**	**$ 70,376**	**$ (11,645)**		**$ 247,187**
LIABILITIES, CONVERTIBLE PREFERRED AND COMMON STOCK, AND STOCKHOLDERS' EQUITY					
Current liabilities:					
Accounts payable	$ 250	$ 5,711	$ —		$ 5,961
Accrued compensation	1,534	—	(1,534)	**B**	—
Accrued expenses and other current liabilities	2,728	12,803	1,534	**B**	17,065
Operating lease liability, current	285	—	—		285
Other current liabilities	—	—	1,870	**D**	9,288
			7,418	**E**	
Total current liabilities	4,797	18,514	9,288		32,599
Operating lease liabilities, non-current	77	192	—		269
Other noncurrent liabilities	—	121	—		121
Preferred stock warrants liability	—	871	(871)	**J**	—
Total liabilities	4,874	19,698	8,417		32,989
COMMITMENTS AND CONTINGENCIES					—
Convertible Preferred and Common Stock:					
Series A convertible preferred stock	—	44,621	(44,621)	**G**	—
Series A-1 convertible preferred stock	—	9,893	(9,893)	**G**	—
Series B convertible preferred stock	—	82,976	(82,976)	**G**	—
Class B convertible common stock	—	5,900	(5,900)	**G**	—
Total convertible preferred and common stock	—	143,390	(143,390)		—

	Graphite Bio, Inc. Historical	Lenz Therapeutics, Inc. Historical	Transaction Accounting Adjustments	Notes	Pro Forma Combined
Stockholders' equity:					
Preferred stock	—	—	—		—
Common stock	1	10	—	**A**	—
			56	**G**	
			(66)	**H**	
			(1)	**K**	
Additional paid-in capital	550,635	2,517	49,462	**A**	310,127
			(292,487)	**L**	
Accumulated deficit	(367,054)	(95,245)	367,480	**M**	(95,935)
			(1,116)	**C**	
Accumulated other comprehensive income	—	6	—		6
Total stockholders' equity (deficit)	183,582	(92,712)	123,328		214,198
TOTAL LIABILITIES, CONVERTIBLE PREFERRED AND COMMON STOCK, AND STOCKHOLDERS' EQUITY	**$ 188,456**	**$ 70,376**	**$ (11,645)**		**$ 247,187**

Unaudited Pro Forma Condensed Combined Statements of Operations
For the Year Ended December 31, 2023
(In thousands, except share and per share amounts)

	Graphite Bio, Inc. Historical	Lenz Therapeutics, Inc. Historical	Transaction Accounting Adjustments	Notes	Pro Forma Combined
Operating expenses:					
Research and development	$ 32,137	$ 59,504	$ 371	**C**	$ 92,012
Selling, general and administrative	40,973	12,925	746	**C**	62,752
			7,418	**E**	
			690	**F**	
Restructuring and impairment costs	62,081	—	—		62,081
Total operating expenses	**135,191**	**72,429**	**9,225**		**216,845**
Loss from operations	**(135,191)**	**(72,429)**	**(9,225)**		**(216,845)**
Other income (expense):					
Other	(338)	93	(123)	**J**	(368)
Loss on disposal of assets	(71)	—	—		(71)
Interest income	10,949	2,189	—		13,138
Total other income (expense), net	**10,540**	**2,282**	**(123)**		**12,699**
Net loss before income taxes	**(124,651)**	**(70,147)**	**(9,348)**		**(204,146)**
Income tax benefit	—	179	—		179
Net loss	**(124,651)**	**(69,968)**	**(9,348)**		**(203,967)**
Unrealized gain on investments in marketable securities	1,048	6			1,054
Comprehensive loss	**$ (123,603)**	**$ (69,962)**	**$ (9,348)**		**$ (202,913)**
Net loss per share, basic and diluted	**$ (2.19)**	**$ (7.22)**	**N/A**		**$ (8.18)**
Weighted-average shares of common stock outstanding, basic and diluted	**57,015,159**	**9,689,045**	**15,235,427**	**N**	**24,924,472**

NOTES TO THE UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL STATEMENTS

1. Description of the Transaction

Graphite, Merger Sub and LENZ have entered into the Merger Agreement, pursuant to which the Merger Sub merged with and into LENZ, with LENZ being the surviving company. As a result of the merger, LENZ is a wholly owned subsidiary of Graphite. Upon the effective time of the merger, all shares of LENZ capital stock outstanding immediately prior to the effective time, after giving effect to the preferred stock conversion and excluding any shares held in treasury stock by LENZ or owned by Graphite or any subsidiary of Graphite or LENZ and any dissenting shares, were converted into 13,654,408 shares of Graphite common stock in the aggregate, based on an exchange ratio of 0.2022, after giving effect to the reverse stock split. Graphite assumed outstanding and unexercised stock options and warrants to purchase shares of LENZ capital stock, and in connection with the merger they were converted into options and warrants to purchase shares of Graphite common stock based on the exchange ratio. On March 21, 2024, in connection with the transactions contemplated by the Merger Agreement, Graphite effected a reverse stock split of Graphite's common stock, par value $0.00001 per share at a ratio of 1:7.

Immediately following the effective time of the merger, LENZ's stockholders owned or held rights to acquire 65% of the combined company and Graphite stockholders owned or held rights to acquire 35% of the combined company, in each case, on a fully-diluted basis and, in the case of Graphite, using the treasury stock method (prior to giving effect to the private placement, any exercised options, and excluding any shares reserved for future grants under the 2024 Plan and the 2024 ESPP).

2. Basis of Pro Forma Presentation

The unaudited pro forma condensed combined financial information has been prepared in accordance with Article 11 of SEC Regulation S-X. The unaudited pro forma condensed combined statement of operations for the year ended December 31, 2023, gives effect to the merger and other events as if it had been consummated on January 1, 2023 and combine the historical statements of operations of Graphite and LENZ for the period then ended.

The unaudited pro forma condensed combined balance sheet as of December 31, 2023 gives effect to the merger and other events and combines the historical balance sheets of Graphite and LENZ as of such date. Based on LENZ's preliminary review of LENZ's and Graphite's summary of significant accounting policies and preliminary discussions between management teams of LENZ and Graphite, the nature and amount of any adjustments to the historical financial statements of Graphite to conform its accounting policies to those of LENZ are not expected to be material. Following completion of the merger, further review of Graphite's accounting policies may result in additional revisions to Graphite's accounting policies and classifications to conform to those of LENZ.

For purposes of these pro forma financial statements, the estimated purchase price consideration consists of the following:

		Amount
Estimated number of shares of the combined company to be owned by Graphite's stockholders[(i)]		8,429,509
Multiplied by the estimate fair value of Graphite's common stock[(ii)]		22.61
Total (in thousands)	$	190,591
Estimated fair value of assumed Graphite equity awards based on pre-combination service (in thousands)[(iii)]		257
Total estimated purchase price (in thousands)	$	190,848

(i) Reflects the number of shares of common stock of the combined company that Graphite equity holders owned as of the effective time of the merger pursuant to the Merger Agreement. This amount is calculated, for purposes of this unaudited pro forma condensed combined financial information, based on shares of Graphite common stock outstanding at December 31, 2023 as effected by the reverse stock-split, and contemplation of equity instruments that are in-the-money and expected to be net exercised using the treasury stock method.

(ii) Reflects the price per share of Graphite common stock, which is the closing bid price of Graphite common stock as reported by Nasdaq on March 18, 2024, as effected by the reverse stock split (See Note F).

(iii) Reflects the estimated acquisition-date fair value of the assumed Graphite equity awards attributable to pre-merger service outstanding as of the effective time of the merger.

For accounting purposes, LENZ is considered to be the acquiring company and the merger is accounted for as a reverse recapitalization of Graphite by LENZ because on the merger date, the pre-combination assets of Graphite are primarily cash, short-term investments, and other non-operating assets.

Under reverse recapitalization accounting, the assets and liabilities of Graphite were recorded, as of the completion of the merger, at their fair value, which is expected to approximate the carrying value of the pre-combination assets. The difference between the final fair value of the consideration transferred and the fair value of the net assets of Graphite following determination of the actual purchase price consideration for Graphite was reflected as an adjustment to additional paid-in capital. The subsequent financial statements of LENZ will reflect the combined operations of LENZ as the acquirer for accounting purposes together with a deemed issuance of shares, equivalent to the shares held by the stockholders of the legal acquirer, Graphite, immediately prior to the effective time, and a recapitalization of the equity of the accounting acquirer, LENZ.

The accompanying unaudited pro forma condensed combined financial information is derived from the historical financial statements of Graphite and LENZ, and include adjustments to give pro forma effect to reflect the accounting for the merger and other events in accordance with GAAP. The historical financial statements of LENZ shall become the historical financial statements of the combined company.

LENZ and Graphite may incur significant costs associated with integrating the operations of LENZ and Graphite after the merger. The unaudited pro forma condensed combined financial information does not reflect the costs of any integration activities or benefits that may result from realization of future cost savings from operating efficiencies expected to result from the merger.

The unaudited pro forma condensed combined financial information may differ from the final recapitalization accounting for a number of reasons, including the fact that the estimate of the fair value of Graphite's net assets at closing is preliminary. The differences that may occur between the preliminary estimate and the final purchase accounting could have a material impact on the accompanying unaudited pro forma condensed combined financial information.

3. Shares of Graphite Common Stock Issued to LENZ Stockholders upon Closing of the Merger

At the closing of the merger, (i) each then-outstanding share of LENZ common stock was converted into the right to receive a number of shares of Graphite common stock equal to the exchange ratio, (ii) each then-outstanding share of LENZ preferred stock was converted into a number of shares of Graphite common stock equal to the exchange ratio multiplied by the aggregate number of shares of LENZ common stock into which each such share of LENZ preferred stock is then convertible, and (iii) each then-outstanding warrant to purchase LENZ preferred stock was converted into a warrant to purchase a number of shares of Graphite common stock equal to the exchange ratio multiplied by the number of shares of LENZ common stock issuable upon the conversion of the shares of LENZ preferred stock subject to the unexercised portion of such warrant. The exchange ratio for purposes of the unaudited pro forma condensed combined financial information of 0.2022 was derived on a fully-diluted basis using the treasury stock method for Graphite as of March 21, 2024 using a negotiated value of LENZ of approximately $231.6 million and of Graphite of approximately $126.7 million.

The number of shares of Graphite common stock that Graphite expects to issue to LENZ's stockholders (ignoring rounding of fractional shares) as of March 21, 2024 is determined as follows:

	Amount
Shares of LENZ common stock issued	11,838,624
Shares of LENZ Class B common stock and preferred stock outstanding	55,691,195
	67,529,819
Exchange Ratio	0.2022
Shares of Graphite common stock expected to be issued to Lenz upon closing	13,654,408

4. Adjustments to Unaudited Pro Forma Condensed Combined Financial Statements

Adjustments included in the column under the heading "Transaction Accounting Adjustments" reflect the application of the required accounting to the merger, private placement, and special cash dividend, applying the effects of the merger to LENZ's and Graphite's historical financial information. Further analysis will be performed after the completion of the merger to confirm these estimates or make adjustments in the final purchase price allocation, as necessary.

Both LENZ and Graphite have a history of net operating losses and each maintains a full valuation allowance against their net deferred tax assets, and management has not identified any changes to the income tax positions due to the merger that would result in an incremental tax expense or benefit. Accordingly, management assumed a statutory tax rate of 0% and no tax-related adjustments have been reflected for the pro forma adjustments.

The unaudited pro forma adjustments included in the unaudited pro forma condensed combined financial information are as follows:

Transaction Accounting Adjustments:

A. To reflect the sale and issuance of approximately 3,559,565 shares of Graphite's common stock with a par value of $0.00001, at a per share price of $15.03, by Graphite as a result of the Graphite private placement that occurred substantially concurrently with the closing of the merger for $53.5 million in gross proceeds, less an estimated $4.0 million in issuance costs.

B. To reclassify $1.5 million from accrued compensation to accrued expenses to conform Graphite's balance sheet presentation to LENZ's.

C. To derecognize $1.1 million of Graphite's prepaid expenses including $0.7 million of prepaid directors' and officers' insurance and $0.4 million of research and development tax credits that cannot be utilized upon closing of the merger (See Note K).

D. To reflect preliminary estimated transaction costs of $1.9 million, not yet reflected in the historical financial statements, that are expected to be incurred by LENZ in connection with the merger, such as legal fees, accounting expenses and consulting fees, as an increase in accrued liabilities and a reduction to additional paid-in capital in the unaudited pro forma condensed combined balance sheet. As the merger is accounted for as a reverse recapitalization equivalent to the issuance of equity for the net assets, primarily cash and short-term investments, of Graphite, these direct and incremental costs are treated as a reduction of the net proceeds received within additional paid-in capital (See Note L).

E. To reflect preliminary estimated transaction costs of $7.4 million, not yet reflected in the historical financial statements, which are expected to be incurred by Graphite in connection with the merger, such as adviser fees, legal, and directors' and officers' liability insurance expenses, as an increase in other current liabilities and accumulated deficit in the unaudited pro forma condensed combined balance sheet and as selling, general and administrative expense in the unaudited pro forma condensed combined statement of operations (See Note K).

F. To reflect (1) $0.3 million of consideration transferred related to pre-combination service of replacement awards and (2) the post-combination share-based compensation expense of $0.7 million as an increase in additional paid-in-capital and accumulated deficit related to the acceleration of vesting upon the change of control and termination of employment for certain awards (See Note L).

G. Reclassification of $143.3 million to additional paid-in-capital, related to LENZ preferred stock, and reflecting the conversion of 52,947,011 shares of LENZ preferred stock and 2,744,184 shares of LENZ Class B common stock into LENZ common stock immediately prior to the merger to be exchanged for 11,260,672 shares of Graphite common stock at an exchange ratio of 0.2022.

H. Reclassification of $64,000 from LENZ common stock to additional paid-in-capital related to LENZ common stock outstanding as of December 31, 2023, after giving effect to the conversion of LENZ

preferred stock and Class B common stock discussed in Note G, that convert into Graphite common stock at an exchange ratio of 0.2022. The par value of LENZ common stock is $0.001 while the par value of Graphite common stock is $0.00001, which has been reflected as a decrease to the par value of LENZ common stock.

I. Concurrent with the closing of the merger, a special cash dividend of $60.0 million will be paid to Graphite stockholders.

J. Represents the conversion of LENZ's preferred warrants into warrants to purchase Graphite common stock upon the closing of the merger, resulting in a reduction in the warrant liability of $0.9 million. Also represents the elimination of other income (loss) of $0.1 million as these warrants were recorded at fair value, and subsequently adjusted to their current fair value at each reporting period with changes reflected in earnings, for warrants that convert upon consummation of the merger.

K. To reflect the elimination of Graphite's historical net equity, which represents the net assets acquired in the reverse capitalization:

Footnote to eliminate Historical Graphite net equity and net assets

	Amount
Pre-combination Graphite additional paid-in Capital:	
Historical Graphite additional paid-in capital	$ (550,635)
Pre-combination Graphite accumulated deficit:	
Historical Graphite accumulated deficit	367,054
Graphite transaction costs (Note E)	7,418
Derecognition of Graphite prepaid expenses (Note C)	1,116
Total pre-combination Graphite accumulated deficit	375,588
Graphite common stock	(1)
Total adjustment to historical equity (net assets of Graphite)	$ (175,048)

L. The pro forma adjustments recorded in additional paid-in capital as noted include:

Adjustments to Additional Paid-in Capital

	Amount
Elimination of pre-combination Graphite additional paid-in capital (Note K)	$ (550,635)
Record acquisition of Graphite historical net assets (Note K)	175,048
Expected transaction costs of LENZ (Note D)	(1,870)
Share-based compensation expense related to Graphite's acceleration of options upon a change-in-control (Note F)	690
Cash dividend paid to Graphite's shareholders upon a change-in-control (Note I)	(59,991)
Conversion of LENZ preferred stock into LENZ common stock (Note G)	143,334
Conversion of historical LENZ common stock issued at December 31, 2023 (Note H)	66
Conversion of LENZ preferred warrants into Graphite common warrants (Note J)	871
Total adjustments to additional paid-in capital	$ (292,487)

M. The pro forma adjustments recorded to accumulated deficit as noted include:

Adjustments to accumulated deficit

	Amount
Elimination of historical Graphite accumulated deficit (Note K)	$ 367,054
Share-based compensation expense related to Graphite's acceleration of options upon a change-in-control (Note F)	(690)
Derecognition of Graphite prepaid expenses (Notes C)	1,116
Total adjustment to accumulated deficit	$ 367,480

N. The pro forma basic and diluted earnings per share have been adjusted to reflect the pro forma net loss for the year ended December 31, 2023. In addition, the number of shares used in calculating the pro forma combined basic and diluted net loss per share has been adjusted to reflect the total number of shares of common stock of the combined company for the respective periods including the 1:7 reverse stock split that was effected by Graphite on its common shares. For the year ended December 31, 2023, the pro forma weighted average shares outstanding has been calculated as follows:

	For the Year Ended December 31, 2023
LENZ weighted-average shares of common stock outstanding	9,689,045
Impact of LENZ convertible preferred and Class B common stock assuming conversion as of January 1, 2023	55,691,195
Total	65,380,240
Application of the exchange ratio to historical LENZ weighted-average shares outstanding	0.2022
Adjusted LENZ weighted-average shares outstanding	13,219,884
Issuance of shares in the Graphite private placement	3,559,565
Historical Graphite weighted-average shares of common stock outstanding	8,145,023
Total pro forma weighted-average shares outstanding	24,924,472

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

The following discussion and analysis provides information that our management believes is relevant to an assessment and understanding of LENZ' consolidated results of operations and financial condition. The discussion should be read together with the audited financial statements and related notes and unaudited pro forma condensed financial information that are included elsewhere or incorporated by reference in this prospectus. This discussion may contain forward-looking statements based upon current expectations that involve risks and uncertainties. LENZ's actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in the section titled "Risk Factors" as set forth in this prospectus.

Unless otherwise indicated or the context otherwise requires, references in this "Management's Discussion and Analysis of Financial Condition and Results of Operations" section to "LENZ OpCo," "LENZ," "the Company," "we," "us," "our" and other similar terms refer to the business and operations of LENZ OpCo prior to the Merger and to New LENZ and its consolidated subsidiary following the Merger.

Management's discussion and analysis of the financial condition and results of operation of LENZ OpCo as of and for the year ended December 31, 2023 is set forth below.

While the legal acquirer in the Merger was Graphite, for financial accounting and reporting purposes under U.S. GAAP, LENZ OpCo was the accounting acquirer and the Merger was accounted for as a "reverse recapitalization." A reverse recapitalization (i.e., a capital transaction involving the issuance of stock by Graphite for LENZ OpCo's stock) does not result in a new basis of accounting, and the consolidated financial statements of the combined entity represent the continuation of the consolidated financial statements of LENZ OpCo in many respects. Accordingly, the consolidated assets, liabilities and results of operations of LENZ OpCo became the historical consolidated financial statements of the combined company, and Graphite's assets, liabilities and results of operations were consolidated with those of LENZ OpCo beginning on the acquisition date. Operations prior to the Merger will be presented as those of LENZ OpCo in future reports. Graphite's assets and liabilities will be measured and recognized at their fair values as of the effective time.

Overview

We are a late-stage biopharmaceutical company focused on developing and commercializing innovative therapies to improve vision. Our initial focus is the treatment of presbyopia, the inevitable loss of near vision that impacts the daily lives of nearly all people over 45. In the United States, the estimated addressable population who suffer from this condition, known as presbyopes, is 128 million, almost four times the number of individuals suffering from dry eye disease and three times the number of individuals suffering from childhood myopia, macular degeneration, diabetic retinopathy and glaucoma combined. We believe that a once-daily pharmacological eye drop that can effectively and safely improve near vision throughout the full workday, without the need for reading glasses, will be a highly attractive commercial product with an estimated U.S. market opportunity in excess of $3 billion. It is our goal to develop and commercialize such a product, and we have assembled an executive team with extensive clinical and commercial experience to execute this goal and become the category leader.

Our lead product candidate LNZ100 is a preservative-free, single-use, once-daily eye drop containing aceclidine. We believe our product candidate is differentiated based on rapid onset, degree and duration of near vision improvement, as well as its ability to be used across the full age range of presbyopes, from their mid-40s to well into their mid-70s, as well as the broadest refractive range. Aceclidine's pupil-selective mechanism of action was demonstrated in our clinical trials where near vision improved while avoiding blurry distance vision. Our product candidate was well-tolerated in clinical trials, and its active ingredient aceclidine has a favorable tolerability profile that have been well-established empirically. LNZ100 has patent protection until 2039 in the United States, at a minimum, due to a robust intellectual property portfolio underpinned by issued patents.

In the safety and efficacy trials ("CLARITY 1 and 2") of our Phase 3 study, LNZ100 achieved the primary endpoints and key secondary endpoints, with statistically significant three-lines or greater improvement in Best

Corrected Distance Visual Acuity ("BCDVA") at near, without losing one or more lines in distance visual acuity. In the vehicle-controlled CLARITY 2 trial, the day 1 results showed (all $p<0.0001$):

- **Rapid onset**: 71% achieved three-lines or greater improvement at 30 minutes.
- **Primary endpoint**: 71% achieved three-lines or greater improvement at 3 hours.
- **Long duration**: 40% achieved three-lines or greater improvement at 10 hours.

Near vision improvement was reproducible and consistent across both CLARITY 1 and 2 throughout the four-week study periods.

LNZ100 was well-tolerated with no serious treatment-related adverse events observed in the over 30,000 treatment days including the six-week safety study period in CLARITY 1 and 2 and the six-month period in the CLARITY 3 Phase 3 long-term safety trial (collectively, the "CLARITY study"). For more details, see the section entitled "CLARITY Phase 3 Clinical Trials (the "CLARITY Study")" in this prospectus in the section titled "Business" beginning on page 89.

As of December 31, 2023, we had $65.8 million of cash, cash equivalents and short-term investments. Based on our current plans, we believe our existing cash, cash equivalents and short-term investments, together with the proceeds from the Merger and the PIPE Financing, will allow the company to continue to build infrastructure and commercialize LNZ100, subject to the NDA submission and FDA approval. We do not expect to generate any revenues from product sales unless and until we successfully complete development and obtain regulatory approval for LNZ100. We have incurred net losses in each year since inception, and as of December 31, 2023, we had an accumulated deficit of $95.2 million. These losses have resulted principally from costs incurred in connection with research and development activities and selling, general and administrative costs associated with our operations. We expect to continue to incur significant expenses and operating losses for the foreseeable future due to the cost of research and development, including conducting clinical trials, the regulatory approval process and preparation for and the commercial launch of LNZ100, subject to FDA approval, including expenses related to product sales, marketing and distribution, and additional costs associated with being a public company, including audit, legal, regulatory and tax-related services associated with maintaining compliance with an exchange listing and SEC requirements. As a result of these and other factors, it is possible that we may require additional financing to fund our operations and planned growth.

Through the completion of the Merger, LENZ OpCo financed its operations primarily through private placements of its common stock and convertible preferred stock, including the following financings during the periods presented:

- In March 2023, LENZ OpCo issued and sold an aggregate of 28,019,181 shares of Series B preferred stock at a purchase price of $2.9801 per share for an aggregate purchase price of approximately $83.5 million.
- In October 2022, LENZ OpCo issued and sold an aggregate of 9,899,340 shares of Series A Preferred Stock at a purchase price of $2.15 per share for an aggregate purchase price of approximately $21.3 million as part of a milestone closing of the 2021 Series A Preferred Stock financing.
- In April 2022, LENZ OpCo issued and sold an aggregate of 2,950,548 shares of Series A-1 Preferred Stock at a purchase price of $3.3892 per share for an aggregate purchase price of approximately $10.0 million.

Until such time as we can generate significant revenue from sales of LNZ100, if ever, we expect to finance our cash needs through equity offerings, debt financings or other capital sources, including potential collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements when needed would have a negative impact on our financial condition and could force us to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourself.

Ji Xing License and Collaboration Agreement

In April 2022, we entered into a License and Collaboration Agreement with Ji Xing Pharmaceuticals Hong Kong Limited ("Ji Xing") granting Ji Xing an exclusive license (the "Ji Xing License") to certain of our intellectual property rights to develop, use, import, and sell products containing LNZ100 or LNZ101 ("Products") for the treatment of presbyopia in humans in mainland China, Hong Kong Special Administrative Region, Macau Special Administrative Region, and Taiwan (collectively, "Greater China). We also granted Ji Xing (i) the right to negotiate in good faith and enter into agreements to purchase Products from us for clinical and commercial uses at cost plus a negotiated percentage and (ii) the right of first negotiation to obtain a regional license from us on other products we might develop outside of the field of presbyopia for commercialization in Greater China.

We received nonrefundable, non-creditable upfront payments totaling $15.0 million as initial consideration under the Ji Xing License. In addition, we are also eligible to receive (i) up to $95.0 million in regulatory and sales milestone payments, (ii) tiered, escalating royalties in the range of 5% to 15% on net sales of Products in Greater China by Ji Xing, its affiliates and sublicensees, and (iii) tiered, deescalating royalties in the range of 15% to 5% of sublicensing income received by Ji Xing prior to the regulatory approval of the first Product in Greater China.

The $15.0 million upfront payments allocated to that single performance obligation was recognized on execution of the Ji Xing License in the year ended December 31, 2022. No additional amounts under the Ji Xing License were received during the year ended December 31, 2022.

In connection with the Ji Xing License, RTW Investments, LP ("RTW"), a significant investor in Ji Xing, through three funds managed or advised by RTW, invested approximately $10.0 million in exchange for 2,950,548 shares of LENZ OpCo's Series A-1 Preferred Stock at a purchase price of $3.3892 per share.

Key Trends and Factors Affecting Comparability Between Periods

- The Ji Xing License was signed in April 2022, and we recorded $15.0 million of revenue for the year ended December 31, 2022. We did not generate any revenue related to the Ji Xing License or from other sources for the year ending December 31, 2023.
- We continue to build out our research and development team and our research and development costs increased in 2023, relative to 2022, as a result of significant expenses related to the CLARITY trials. See the section of this prospectus titled *"Business"* for more information about the CLARITY trials.
- We have built a cross-functional commercial team consisting of marketing, market access and commercial operations and will continue to strategically build our sales and our commercial infrastructure with capabilities designed to scale when necessary to support a commercial launch if approval is received. These expenses increased in 2023 as compared to 2022.
- Following the Merger, the combined company's expenses will increase from those that we incurred in prior years as a privately held company, including (i) costs to comply with the rules and regulations of the SEC and those of Nasdaq, (ii) legal, accounting and other professional services, (iii) insurance, (iv) investor relations activities, and (v) other administrative and professional services.

Recent Developments

The Merger and PIPE Financing

On November 14, 2023, we entered into the Merger Agreement with Graphite and Generate Merger Sub, pursuant to which LENZ OpCo merged with and into Generate Merger Sub at the Effective Time on March 21, 2024, with LENZ OpCo continuing after the Merger as the surviving company and a wholly-owned subsidiary of Graphite. At the Effective Time, each outstanding share of LENZ OpCo capital stock was converted into the right to receive shares of Graphite common stock, par value $0.00001, as set forth in the Merger Agreement. Upon closing of the Merger, the combined company was named "LENZ Therapeutics, Inc." and will continue to be listed on the Nasdaq.

Under the exchange ratio formula in the Merger Agreement, immediately following the Effective Time, the LENZ OpCo securityholders owned approximately 65% of the outstanding shares of the combined company's common stock on a fully-diluted basis and securityholders of Graphite as of immediately prior to the Effective Time owned approximately 35% of the outstanding shares of the combined company's common stock on a fully-diluted basis (prior to giving effect to the PIPE Financing and excluding shares reserved for future grants under the 2024 Plan and the 2024 ESPP).

Concurrently with the execution of the Merger Agreement, Graphite entered into the subscription agreement with the PIPE Investors, pursuant to which, immediately following the Effective Time, the PIPE Investors subscribed for and purchased an aggregate of 3,559,565 shares of Common Stock at a price of $15.0299 per share for aggregate gross proceeds of approximately $53.5 million.

Basis of Presentation

The following discussion highlights our results of operations and the principal factors that have affected our financial condition as well as our liquidity and capital resources for the periods described and provides information that management believes is relevant for an assessment and understanding of the balance sheets and statements of operations and comprehensive loss presented herein. The following discussion and analysis are based on our audited financial statements and related notes thereto, which we have prepared in accordance with GAAP. You should read the discussion and analysis together with such audited financial statements and the related notes thereto.

Components of Statements of Operations and Comprehensive Loss

Revenue

We currently have no products approved for sale, and we have not generated any revenue from product sales to date. We have generated revenue related to the Ji Xing License, and in the future may generate revenue from payments received under licenses or collaboration agreements we may enter into with respect to our product candidates.

We recorded $15.0 million of license revenue related to the Ji Xing License for the year ended December 31, 2022.

We did not generate any revenue related to the Ji Xing License or from other sources for the year ended December 31, 2023.

Operating Expenses

Research and Development

Research and development expenses, which consist primarily of costs associated with our product research and development efforts, are expensed as incurred. Research and development expenses consist primarily of: (i) employee related costs, including salaries, benefits and share-based compensation expense for employees engaged in research and development activities; (ii) third-party contract costs relating to research, formulation, manufacturing, nonclinical studies and clinical trial activities; (iii) external costs of outside consultants who assist with technology development, regulatory affairs, clinical development and quality assurance; and (iv) allocated facility-related costs. We track research and development costs collectively for LNZ100 or LNZ101 because expenses incurred are interrelated and disaggregation would not be meaningful.

Costs for certain activities, such as manufacturing, nonclinical studies and clinical trials are generally recognized based on the evaluation of the progress of completion of specific tasks using information and data provided by our vendors and collaborators. Research and development activities are central to our business.

We continue to build out our research and development team and we expect our research and development costs will decrease in 2024, relative to 2023, given the completion of the CLARITY trials in April 2024.

Selling, General and Administrative

Selling, general and administrative expenses consist primarily of salaries and related benefits, including share-based compensation, related to our executive, finance, business development, sales and marketing, and other corporate functions. Other general and administrative expenses include professional fees for legal, auditing, tax and business consulting services, insurance costs, intellectual property and patent costs, facility costs and travel costs. We expect that selling, general and administrative expenses will increase in the future as we expand our operating activities. Additionally, we expect that the combined company will incur significant additional expenses associated with being a public company that LENZ OpCo did not incur as a privately-held company, including (i) costs to comply with the rules and regulations of the SEC and those of Nasdaq, (ii) legal, accounting and other professional services, (iii) insurance, (iv) investor relations activities, and (v) other administrative and professional services.

Other Income (Expense), Net

Other income (expense), net consists of the change in fair value of preferred stock warrants liability and interest income earned on cash, cash equivalents and short-term investments.

Provision for Income Taxes

Income tax expense (benefit) consists of U.S. federal and state income taxes.

Results of Operations

Comparison of the Year Ended December 31, 2022 and 2023

The following table presents the results of operations for the periods indicated (amounts in thousands, except percentages):

	Year Ended December 31,			
	2022	2023	$ Change	% Change
Revenue:				
License revenue	$ 15,000	$ —	$ (15,000)	(100)%
Total revenue	15,000	—	(15,000)	(100)%
Operating expenses:				
Research and development	21,125	59,504	38,379	182 %
Selling, general and administrative	4,358	12,925	8,567	197 %
Total operating expenses	25,483	72,429	46,946	184 %
Loss from operations	(10,483)	(72,429)	(61,946)	591 %
Other income:				
Other	15	93	78	520 %
Interest income	4	2,189	2,185	54,625 %
Total other income (expense), net	19	2,282	2,263	11,911 %
Net loss before income taxes	(10,464)	(70,147)	(59,683)	570 %
Income tax expense (benefit)	347	(179)	(526)	(152)%
Net loss	$ (10,811)	$ (69,968)	$ (59,157)	547 %

License Revenue

During the year ended December 31, 2022, we recognized $15.0 million of license revenue related to the Ji Xing License. This revenue was recognized upon completion of the related performance obligation. We did not recognize any revenue for the year ended December 31, 2023.

Research and Development

Substantially all of our research and development expenses incurred for the years ended December 31, 2022 and 2023 were related to the development of LNZ100 and LNZ101, which were both included together in our INSIGHT and CLARITY trials.

The following table presents a detailed breakdown of our research and development expenses for the periods indicated (in thousands):

	Year Ended December 31,	
	2022	2023
Contract clinical research expense	$ 11,598	$ 37,949
Contract manufacturing expense	6,006	8,339
Contract nonclinical research expense	1,216	6,835
Contract regulatory consulting expense	237	1,107
Employee salaries and related expense	1,810	4,131
Other expense	258	1,143
Total research and development	$ 21,125	$ 59,504

Research and development expenses increased $38.4 million, or 182%, from $21.1 million for the year ended December 31, 2022 to $59.5 million for the year ended December 31, 2023. The increase was primarily driven by a $26.4 million increase in contract research expense for our clinical trials, a $2.3 million increase in contract manufacturing expenses for clinical drug product manufacturing, a $5.6 million increase in contract nonclinical research expense, and a $2.3 million increase in employee salaries and related expenses. These increases were primarily related to our CLARITY trials and preparation for our potential NDA filing.

Selling, General and Administrative

Selling, general and administrative expenses increased $8.6 million, or 197%, from $4.4 million for the year ended December 31, 2022 to $12.9 million for the year ended December 31, 2023. The increase was primarily driven by a $4.6 million increase in legal and other professional services (principally related to legal fees incurred in connection with our abandoned initial public offering), a $2.2 million increase in employee salaries and related expenses due to increased headcount, and a $1.4 million increase in sales infrastructure and marketing expenses.

Other Income (Expense), Net

Other income, net for the year ended December 31, 2022, was $19,000, compared to $2.3 million for the year ended December 31, 2023. The change was primarily driven by a $2.2 million increase in interest income and a reduction in fair value of preferred stock warrants liability of $0.1 million.

Provision for Income Taxes

During the year ended December 31, 2022, we recognized income tax expense $0.3 million due to the requirement to capitalize research and development expenses under the Tax Cuts and Jobs Act (the "TCJA"), compared to an income tax benefit of $0.2 million for the year ended December 31, 2023 primarily due to our income derived in foreign markets, which is subject to a lower tax rate as a result of the foreign-derived intangible income deduction that was introduced as part of the TCJA. The TCJA requires taxpayers to capitalize and amortize research and development expenditures under section 174 for tax years beginning after December 31, 2021. This rule became effective for us during the year ended December 31, 2022 resulting in a gross deferred tax asset for capitalized research and development expenditures of approximately $66.0 million as of December 31, 2023. We will continue to amortize these costs for tax purposes over 5 years for R&D performed in the U.S. and over 15 years for R&D performed outside the U.S.

Liquidity and Capital Resources

Sources of Liquidity

As of December 31, 2023, we had $65.8 million of cash, cash equivalents and marketable securities. Based on our current operating plans, we believe our existing cash, cash equivalents and short-term investments will be sufficient to fund our planned operations into 2025. Further, based on our current operating plans, we believe our cash, cash equivalents, and short-term investments as of December 31, 2023, together with the proceeds from the merger and the Graphite private placement, will be sufficient to fund our planned operations through several anticipated value-creating milestones and through at least 2026, and will allow us to continue to build infrastructure and commercialize our lead product candidate, subject to successful completion of the ongoing Phase 3 trials, NDA submission and FDA approval.

We have incurred net losses in each year since inception and as of December 31, 2023, we had an accumulated deficit of $95.2 million. Our net losses were $10.8 million and $70.0 million for the years ended December 31, 2022 and 2023, respectively. These losses have resulted principally from costs incurred in connection with research and development activities and selling, general and administrative costs associated with our operations. We expect to continue to incur significant expenses and operating losses for the foreseeable future due to the cost of research and development, the regulatory approval process for LNZ100, and the commercial launch of LNZ100, if approved.

From inception through December 31, 2023, we received funding of $13.0 million from our initial seed financing, $47.0 million from the sale of Series A Convertible Preferred Stock, $10.0 million from the sale of Series A-1 Convertible Preferred Stock, and gross proceeds of $83.5 million from the sale of Series B Convertible Preferred Stock.

Funding Requirements

We believe that our existing cash, cash equivalents and marketable securities will be sufficient to fund our planned operations into 2025. Further, based on our current operating plans, we believe our existing cash, cash equivalents, and short-term investments, together with the proceeds from the Merger and the PIPE Financing, will be sufficient to fund our planned operations through several anticipated value-creating milestones and through at least 2026, and will allow us to continue to build infrastructure and commercialize LNZ100, subject to NDA submission and FDA approval. This belief is based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than expected. Changing circumstances, some of which may be beyond our control, could cause us to consume capital significantly faster than currently anticipated, and we may need to seek additional funds sooner than planned.

Our future capital requirements will depend on many factors, including but not limited to:

- the results, costs, and timing of any additional clinical trials we are required to complete for LNZ100;
- the costs and timing of manufacturing for LNZ100 and commercial manufacturing if LNZ100 is approved;
- costs associated with establishing a sales, marketing, and distribution infrastructure to commercialize LNZ100 if we obtain marketing approval;
- the costs, timing, and outcome of regulatory review of LNZ100;
- the legal costs of obtaining, maintaining, and enforcing our patents and other intellectual property rights;
- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company;
- the terms and timing of establishing and maintaining licenses and other similar arrangements;
- our ability to achieve sufficient market acceptance and adequate market share and revenue for LNZ100. if approved; and

- costs associated with any products or technologies that we may in-license or otherwise acquire or develop.

Prior to the Merger, LENZ OpCo funded its operations primarily through the sale and issuance of convertible preferred stock and it is possible that, following the Merger, we may require additional financing. We intend to evaluate financing opportunities from time to time, and our ability to obtain financing will depend, among other things, on our development efforts, business plans, operating performance and the condition of the capital markets at the time we seek financing. We cannot assure you that additional financing will be available to us on favorable terms when required, or at all. If we raise additional funds through the issuance of equity or equity-linked securities, those securities may have rights, preferences or privileges senior to the rights of our Common Stock, and our stockholders may experience dilution. If we raise additional funds through the incurrence of indebtedness, then we may be subject to increased fixed payment obligations and could be subject to restrictive covenants, such as limitations on our ability to incur additional debt, and other operating restrictions that could adversely impact our ability to conduct our business.

Cash Flows

The following table summarizes our cash flows for the years presented (amounts in thousands):

	Years Ended December 31,	
	2022	2023
Net cash (used in) provided by:		
Operating activities	$ (4,091)	$ (60,380)
Investing activities	(37)	(29,621)
Financing activities	30,262	80,700
Net increase in cash and cash equivalents	$ 26,134	$ (9,301)

Net Cash Used in Operating Activities

Our net cash used in operating activities primarily results from our net loss adjusted for non-cash expenses, changes in working capital components, amounts due to contract research organizations to conduct our clinical programs, manufacturing of drug product and employee-related expenditures for research and development and selling, general and administrative activities. Our cash flows from operating activities will continue to be affected by spending to develop and pursue regulatory approval for LNZ100 and commercialization activities, if approval is obtained. Our cash flows will also be affected by other operating and general administrative activities, including operating as a public company.

For the year ended December 31, 2022, cash used in operating activities was $4.1 million and resulted from (i) our net loss of $10.8 million plus a $2.1 million increase in operating assets, offset by (ii) a $8.2 million increase in accounts payable and accrued liabilities and $0.7 million in non-cash adjustments primarily related to share-based compensation expense.

For the year ended December 31, 2023, cash used in operating activities was $60.4 million and resulted from (i) our net loss of $70.0 million, plus $1.1 million in amortization of premiums and discounts on marketable securities, offset by (ii) an $8.6 million increase in accounts payable and accrued liabilities, $1.3 million of share-based compensation expense, and a $0.8 million decrease in operating assets.

Net Cash Used in Investing Activities

Cash used in investing activities for the year ended December 31, 2022 was $37,000 and related to the purchase of property and equipment.

For the year ended December 31, 2023, cash used in investing activities was $29.6 million and related primarily to the purchase of marketable securities of $52.1 million offset by proceeds from maturities of marketable securities of $22.5 million.

Net Cash Provided by Financing Activities

Cash provided by financing activities for the year ended December 31, 2022 includes $20.2 million in net cash proceeds from the sale by LENZ OpCo of Series A Convertible Preferred Stock, $9.9 million in net cash proceeds from the sale by LENZ OpCo of Series A-1 Convertible Preferred Stock, and $0.1 million in net cash proceeds from the exercise of LENZ OpCo stock options.

For the year ended December 31, 2023, cash provided by financing activities was $80.7 million and consisted of $83.0 million in net cash proceeds from the sale by LENZ OpCo of Series B Convertible Preferred Stock, and $0.2 million in net cash proceeds from the exercise of LENZ OpCo stock options, offset by an increase in deferred offering costs of $2.5 million.

Material Cash Requirements from Contractual Obligations

In February 2022, we entered into a lease for 2,930 square feet of office space in Del Mar, California. In March 2023, we entered into a lease amendment for a 647 square feet expansion of our office space at the same facility. The term of the lease, as amended, is forty-eight months from the original commencement date, terminating March 31, 2026, unless terminated sooner.

Rent expense is recorded on a straight-line basis. Rent expense related to the Del Mar lease was $0.1 million for the years ended December 31, 2022 and 2023, respectively. See Note 6 to our audited financial statements for details related to future lease payments.

We also have contracts with various organizations to conduct research and development activities, including clinical trial organizations to manage clinical trial activities and manufacturing companies to manufacture the drug product used in the clinical trials. The scope of the services under these research and development contracts can be modified and the contracts cancelled by us upon written notice. In the event of a cancellation, the company would be liable for the cost and expenses incurred to date as well as any close out costs of the service arrangement.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements as defined in the rules and regulations of the SEC.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of the financial condition and results of operations is based on our financial statements, which have been prepared in accordance with GAAP. The preparation of our financial statements requires us to make certain estimates, judgements and assumptions that affect the reported amounts of assets and liabilities as of the date of the financial statements, as well as the reported amounts of revenues and expenses during the periods presented. We believe that the estimates, judgments and assumptions are reasonable based upon information available to us at the time that these estimates, judgments and assumptions are made. To the extent there are material differences between these estimates, judgments or assumptions and actual results, our financial statements will be affected. Historically, revisions to our estimates have not resulted in a material change to our financial statements.

While our significant accounting policies are described in more detail in the notes to our financial statements, we believe the following accounting policies to be most critical to the judgments and estimates used in the preparation of our financial statements.

Prepaid and Accrued Research and Development Expenses

As part of the process of preparing our financial statements, we are required to estimate our prepaid and accrued research and development expenses. This process involves reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. We make estimates of our prepaid and accrued research and development

expenses as of each balance sheet date in our financial statements based on facts and circumstances known to us at the time.

Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, we may report amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates and amounts actually incurred.

Preferred Stock Warrants Liability

LENZ OpCo had freestanding warrants to purchase shares of Series A convertible preferred stock, referred to herein as the Series A Warrants. Upon certain change in control events that were outside of LENZ OpCo's control, including liquidation, sale or transfer of control, holders of the preferred stock could cause redemption of such warrants. The Series A Warrants are revalued at each subsequent balance sheet date, with fair value changes recognized as increases or reductions to other income (expense), net in the accompanying statements of operations. See Note 3 to our audited financial statements for information concerning certain of the specific assumptions we used in determining the value of the Series A Warrants at each reporting period. Upon completion of the Merger, the Series A Warrants became exercisable into shares of the Common Stock and will no longer continue to be remeasured at each reporting date.

Stock-Based Compensation Expense

Stock-based compensation expense represents the cost of the grant date fair value of equity awards recognized over the requisite service period of the awards (usually the vesting period) on a straight-line basis. We estimate the fair value of equity awards using the Black-Scholes option pricing model and recognize forfeitures as they occur. Estimating the fair value of equity awards as of the grant date using valuation models, such as the Black-Scholes option pricing model, is affected by assumptions regarding a number of variables, including the risk-free interest rate, the expected stock price volatility, the expected term of stock options, the expected dividend yield and the fair value of the underlying common stock on the date of grant. Changes in the assumptions can materially affect the fair value and ultimately how much stock-based compensation expense is recognized. These inputs are subjective and generally require significant analysis and judgment to develop. See Note 10 to our audited financial statements for information concerning certain of the specific assumptions we used in applying the Black-Scholes option pricing model to determine the estimated fair value of our stock options granted, if any, during the years ended December 31, 2022 and 2023.

Common Stock Valuations

LENZ OpCo was required to estimate the fair value of the common stock underlying its equity awards when performing fair value calculations. The fair value of the common stock underlying such equity awards was determined on the grant date by the LENZ OpCo board of directors considering the most recently available third-party valuations of LENZ OpCo common stock and the LENZ OpCo board of directors' assessment of additional objective and subjective factors that it believed were relevant, and factors that may have changed from the date of the most recent valuation through the date of the grant. All options were intended to be granted with an exercise price per share no less than the fair value per share of common stock underlying those options on the date of grant, based on the information known to the LENZ OpCo board of directors on the date of grant. In the absence of a public trading market for the LENZ OpCo common stock prior to the Merger, on each grant date LENZ OpCo developed an estimate of the fair value of our common stock in order to determine an exercise price for the option grants.

The various objective and subjective factors the LENZ OpCo board of directors considered, along with input from management, to determine the fair value of the LENZ OpCo common stock, included:

- valuations of the LENZ OpCo common stock performed by independent third-party valuation specialists;

- LENZ OpCo's stage of development and business strategy, including the status of research and development efforts of its platforms, programs and product candidates, and the material risks related to its business and industry;
- LENZ OpCo's results of operations and financial position, including levels of available capital resources;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;
- the lack of marketability of the LENZ OpCo common stock as a private company;
- the prices of LENZ OpCo convertible preferred stock sold to investors in arm's length transactions and the rights, preferences, and privileges of LENZ OpCo convertible preferred stock relative to those of LENZ OpCo common stock;
- the likelihood of achieving a liquidity event for the holders of LENZ OpCo common stock, such as an initial public offering or a sale of the company, given prevailing market conditions;
- trends and developments in LENZ OpCo's industry; and
- external market conditions affecting the life sciences and biotechnology industry sectors.

Prior to the Merger, determinations of the fair value of LENZ OpCo common stock have included the consideration by the LENZ OpCo board of directors of valuations prepared by an independent third-party valuation specialist using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation Guide: Valuation of Privately Held Company Equity Securities Issued as Compensation (the "Practice Aid").

The Practice Aid prescribes several valuation approaches for setting the value of an enterprise, such as the cost, income and market approaches, and various methodologies for allocating the value of an enterprise to the LENZ OpCo common stock. The cost approach establishes the value of an enterprise based on the cost of reproducing or replacing the property less depreciation and functional or economic obsolescence, if present. The income approach establishes the value of an enterprise based on the present value of future cash flows that are reasonably reflective of LENZ OpCo's future operations, discounting to the present value with an appropriate risk adjusted discount rate or capitalization rate. The market approach is based on the assumption that the value of an asset is equal to the value of a substitute asset with the same characteristics. Each valuation methodology was considered in LENZ OpCo's valuations.

The Practice Aid also identifies various available methods for allocating enterprise value across classes and series of capital stock to determine the estimated fair value of common stock at each valuation date. In accordance with the Practice Aid, the LENZ OpCo board of directors considered the following methods:

- *Probability-weighted expected return method ("PWERM")*. The PWERM is a scenario-based analysis that estimates the fair value of common stock based upon an analysis of future values for the business, assuming various outcomes. The common stock value is based on the probability-weighted present value of expected future investment returns considering each of the possible forecasted outcomes as well as the rights of each class of stock. The future value of the common stock under each outcome is discounted back to the valuation date at an appropriate risk-adjusted discount rate and probability weighted to arrive at a non-marketable indication of value for the common stock.
- *Option Pricing Method ("OPM")*. Under the OPM, shares are valued by creating a series of call options, representing the present value of the expected future returns to the stockholders, with exercise prices based on the liquidation preferences and conversion terms of each equity class. The estimated fair values of the preferred and common stock are inferred by analyzing these options.
- *Hybrid Return Method*. The hybrid return method is a blended approach using aspects of both the PWERM and OPM, in which the equity value in one of the scenarios is calculated using an OPM.

LENZ OpCo generally estimated the enterprise value of its business using a market approach. For each of the valuations conducted as of October 30, 2020, May 1, 2022 and October 31, 2022, LENZ OpCo used the precedent transaction method (one of the three general methodologies of the market approach) to determine enterprise value. The precedent transaction method considers the sale price of shares in a recent financing and then back- solves using an option pricing model that gives consideration to the company's capitalization structure and rights of the preferred and common stockholders as well as an assumption for a discount for lack of marketability ("DLOM"). For the March 6, 2023, June 30, 2023, and September 6, 2023 valuations, LENZ OpCo examined two scenarios to estimate enterprise value: (1) the "IPO Scenario," which represents the future value of LENZ OpCo common stock upon an initial public offering, based on certain assumptions, and then risk-adjusts to estimate the present value of LENZ OpCo's common stock excluding any DLOM, and (2) the "Stay Private Scenario," in which LENZ OpCo would remain an independent and private company and for which it used the precedent transaction method including a DLOM. We then probability weighted the valuations for the IPO Scenario and the Stay Private Scenario to estimate enterprise value.

Given the uncertainty associated with both the timing and type of any future exit scenario, and based on LENZ OpCo's stage of development and other relevant factors, for the valuations conducted as of October 30, 2020, May 1, 2022, and October 31, 2022, LENZ OpCo concluded that the OPM was most appropriate for allocating enterprise value. LENZ OpCo believed the OPM was the most appropriate given the expectation of various potential liquidity outcomes and the difficulty of selecting and supporting appropriate enterprise values given LENZ OpCo's early stage of development. Under the OPM, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The values of LENZ OpCo's preferred stock and common stock are inferred by analyzing these options. For the valuations conducted as of March 6, 2023, June 30, 2023, and September 6, 2023, LENZ OpCo determined to allocate enterprise value using the hybrid return method, which is a hybrid between PWERM and OPM and estimates the probability weighted value across multiple scenarios but uses the OPM to estimate the allocation of value within one or more of those scenarios. The hybrid method is useful when certain discrete future outcomes can be predicted, but also accounts for uncertainty regarding the timing or likelihood of specific alternative exit events.

The assumptions underlying these valuations represented LENZ OpCo management's best estimates, which involved inherent uncertainties and the application of management's judgment. As a result, if LENZ OpCo had used significantly different assumptions or estimates, the fair value of LENZ OpCo's common stock and LENZ OpCo's stock-based compensation expense could have been materially different. Following the closing of the Merger, our board of directors will determine the fair value of our common stock based on our closing price as reported on the date of grant on the primary stock exchange on which our common stock is traded.

Other Company Information

Jumpstart Our Business Startups Act ("JOBS Act")

We will be an emerging growth company, as defined in the JOBS Act, and we may remain an emerging growth company until the last day of the fiscal year following the fifth anniversary of the initial public offering of Graphite's common stock. For so long as we remain an emerging growth company, we are permitted and intend to rely on certain exemptions from various public company disclosure and reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404(b) of 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 nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved. In particular, we have provided only two years of audited financial statements and have not included all of the executive compensation-related information that would be required if we were not an emerging growth company. Accordingly, the information contained herein may not be comparable with the information stockholders receive from other public companies in which they may hold stock.

Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. Prior to the Merger, Graphite has elected to use, and we intend to continue to use, this extended transition period for

complying with certain or new or revised accounting standards until the earlier of (i) the last day of the fiscal year (a) following the fifth anniversary of the closing of Graphite's initial public offering, (b) in which we have total annual gross revenue of at least $1.235 billion, or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of the prior June 30th, (ii) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period, or (iii) if we affirmatively and irrevocably opt out of the extended transition period provided by the JOBS Act.

We will also be a "smaller reporting company" because the market value of Graphite's stock held by non-affiliates was less than $700 million as of June 30, 2023 and its annual revenue was less than $100 million during the fiscal year ended December 31, 2022. We may continue to be a smaller reporting company after the Merger in any given year if either (i) the market value of our stock held by non-affiliates is less than $250 million as of June 30 in the most recently completed fiscal year or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million as of June 30 in the most recently completed fiscal year. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Recent Accounting Pronouncements

See Note 2 to our audited financial statements included elsewhere in this prospectus for a discussion of recent accounting pronouncements.

BUSINESS

Overview

We are a late-stage biopharmaceutical company focused on developing and commercializing innovative therapies to improve vision. Our initial focus is the treatment of presbyopia, the inevitable loss of near vision that impacts the daily lives of nearly all people over 45. In the United States, the estimated addressable population who suffer from this condition, known as presbyopes, is 128 million, almost four times the number of individuals suffering from dry eye disease and three times the number of individuals suffering from childhood myopia, macular degeneration, diabetic retinopathy and glaucoma combined. We believe that a once-daily pharmacological eye drop that can effectively and safely improve near vision throughout the full workday, without the need for reading glasses, will be a highly attractive commercial product with an estimated U.S. market opportunity in excess of $3 billion. It is our goal to develop and commercialize such a product, and we have assembled an executive team with extensive clinical and commercial experience to execute this goal and become the category leader.

Our product candidate LNZ100 is a preservative-free, single-use, once-daily eye drop containing aceclidine. We believe our product candidate is differentiated based on rapid onset, degree and duration of near vision improvement, as well as its ability to be used across the full age range of presbyopes, from their mid-40s to well into their mid-70s, as well as the broadest refractive range. Aceclidine's pupil-selective mechanism of action was demonstrated in our clinical trials where near vision improved while avoiding blurry distance vision. LNZ100 was well-tolerated in clinical trials and its active ingredient aceclidine has a favorable tolerability profile. LNZ100 has patent protection until 2039 in the United States, at a minimum, due to a robust intellectual property portfolio underpinned by issued patents.

In the safety and efficacy trials of our Phase 3 study ("CLARITY 1 and 2"), LNZ100 achieved the primary endpoints and key secondary endpoints, with statistically significant three-lines or greater improvement in Best Corrected Distance Visual Acuity ("BCDVA") at near, without losing one or more lines in distance visual acuity. In the vehicle-controlled CLARITY 2 trial, the day 1 results showed (all $p<0.0001$):

- **Rapid onset:** 71% achieved three-lines or greater improvement at 30 minutes.
- **Primary endpoint:** 71% achieved three-lines or greater improvement at 3 hours.
- **Long duration:** 40% achieved three-lines or greater improvement at 10 hours.

Near vision improvement was reproducible and consistent across both CLARITY 1 and 2 throughout the four-week study periods. LNZ100 was well-tolerated with no serious treatment-related adverse events observed in the over 30,000 treatment days, including the six-week safety study period in CLARITY 1 and 2, and the six-month period in the CLARITY 3 Phase 3 long-term safety trial (collectively, the "CLARITY study").

Our other product candidate LNZ101,a preservative-free eye drop containing aceclidine and brimonidine, showed similar results, including achieving primary and secondary endpoints in both CLARITY 1 and 2, but did not show superiority to LNZ100. Based on these results, we selected LNZ100 as our lead product candidate. We plan to submit a New Drug Application ("NDA") to the U.S. Food and Drug Administration ("FDA") for LNZ100 in mid-2024 with a launch target date in the second half of 2025 assuming approval. We believe that LNZ100, if approved, could be the first aceclidine-based product approved by the FDA and would then be eligible for five years of new chemical entity ("NCE") exclusivity in the United States.

It is estimated that there are 1.8 billion presbyopes globally and 128 million presbyopes in the United States. As people age, the crystalline lens in their eyes gradually hardens, resulting in a loss of lens elasticity that reduces the ability of the lens to increase its curvature and refractive power to focus incoming light for near vision onto the retina, known as accommodation. Although the progression of presbyopia is gradual, presbyopes often experience an abrupt change in their daily life as the symptoms become more pronounced starting in their mid-40s, when reading glasses or other corrective aids are suddenly necessary to read text or conduct close-up work. Presbyopia is typically self-diagnosed and self-managed with over-the-counter reading glasses, or managed, after evaluation by an eye care professional ("ECP"), with prescription reading or bifocal glasses or multifocal contact lenses. Currently,

the only approved and marketed pharmaceutical treatment for presbyopia is marketed by AbbVie under the brand Vuity.

Based on data collected in a third-party study commissioned by us in early 2023 that is further described in the section *"Market Opportunity,"* we found that presbyopes have high willingness to use a daily prescription eye drop that improves their near vision throughout the full workday. We expect that there will be a wide range of presbyopes that will be interested in using the eye drops at least four times a week. The large initial demand seen for Vuity during its launch in late 2021 and early 2022 corroborates the market demand for a pharmaceutical option for the treatment of presbyopia. However, despite a promising initial launch, Vuity's user uptake has been limited by reportedly lower-than-expected efficacy and duration of effect across users. Additionally, Vuity use is associated with some side effects, including retinal tears and detachments, induced by the stimulation of the ciliary muscle. These limitations on efficacy and safety subsequently resulted in lower than anticipated prescription refill rates and a label amendment reflecting the risk of retinal tears and detachment specifically associated with Vuity. We believe that our once-daily eye drop, if approved, could become the leading brand for presbyopes, by improving near vision throughout the full workday.

LNZ100 is formulated with aceclidine, a miotic, and is designed to achieve optimal pupil diameter without impacting distance vision, a key limitation of other miotics. Miotics are compounds that cause pupil constriction, or miosis, creating a pinhole effect that enables better focus of incoming light from near objects onto the retina. Research has shown that a pupil diameter below two millimeters (2 mm) is optimal for presbyopia treatment and results in clinically meaningful improvement in near vision. Unlike other miotics such as pilocarpine and carbachol, aceclidine's mechanism of action is pupil-selective, meaning it can activate the iris sphincter muscle and cause miosis of the pupil to a diameter below 2 mm without overstimulating the ciliary muscles that can cause a myopic shift and impair distance vision. As a result, aceclidine does not require any remaining accommodation to improve near vision, broadening its benefits to older presbyopes whose lens has lost this capacity. Therefore, we expect that users may be able to benefit from treatment even as they age from mid-40s to well into their mid-70s and across a broader range of refractive errors, as demonstrated in clinical testing to date.

While aceclidine is new to the United States, it has a long-established history outside of the United States, having been approved in Europe since the 1970s for the treatment of glaucoma and marketed by Merck under the brand Glaucostat, at higher concentrations than in LNZ100 and up to four times a day. Given the known favorable tolerability profile of aceclidine, LNZ100's sole active ingredient, its decades-long use, and unique mechanism of action, we believe LNZ100 has the potential to treat the broadest population of presbyopes and become the category leader.

Given our goal to develop and commercialize the leading, once-daily eye drop for presbyopia that can effectively and safely improve near vision throughout the full workday, we continue to build a robust commercial strategy in the United States to be launch-ready upon expected timing of FDA approval. We retain the flexibility to not only seek commercialization of our product candidates, but to also remain opportunistic in developing, in-licensing or partnering other products or product candidates to further leverage our commercial infrastructure to drive growth and operating leverage.

To execute our vision, we have assembled a team with extensive experience in building successful life science and consumer product companies. Our team has helped launch and commercialize over a dozen ophthalmic products and therapies, including Acuvue, Alphagan P, Combigan, Dailies AquaComfort Plus, Durysta, Latisse, Lumigan, Pred Forte, Refresh, Restasis, Truetear, and Vuity, as well as major consumer-focused brands such as Botox, Herbalife and Ray-Ban. Members of our management team have held senior positions at Alcon, Allergan, Alvotech, Avanir, Bausch + Lomb, Herbalife, Hospira, Johnson & Johnson, Pfenex, Pfizer, VISX and others. We have also engaged a strong team of medical advisors across the ophthalmology and optometry fields. Our team is further supported by a strong group of investors that share our commitment to helping the millions of people experiencing symptoms of presbyopia in the United States and globally.

LENZ Strategy

We are a late-stage biopharmaceutical company focused on developing and commercializing innovative therapies to improve vision. Our goal is to develop and commercialize the leading, once-daily eye drop for presbyopia that can effectively and safely improve near vision throughout the full workday. We intend to achieve this goal by pursuing the following key strategic objectives:

- **Capitalize on the unique characteristics of aceclidine through LNZ100.** A key part of our strategy was the selection and development of aceclidine as a miotic agent for the treatment of presbyopia. As the only known pupil-selective miotic, aceclidine has a unique mechanism of action that we believe should allow for development as a category leading eye drop for presbyopia. We have since demonstrated our ability to enable rapid onset, degree and duration of near vision improvement with minimal risk of impact to distance vision in multiple clinical trials. Furthermore, we believe that aceclidine can address both a wider age range of presbyopes from mid-40s to well into their mid-70s, as well as broader refractive range, relative to currently available eye drops.

- **Pursue approval and commercialization of LNZ100.** Based on our positive Phase 3 results, we selected LNZ100 as our lead product candidate. We plan to submit an NDA for LNZ100 in mid-2024 with a launch target date in the second half of 2025. We believe that LNZ100, if approved, could be the first aceclidine-based product approved by the FDA and would then be eligible for five years of NCE exclusivity in the United States. If approved by FDA, our objective is to best create loyalty and value based on an "all eyes, all day" brand mission.

- **Pursue our focused commercial strategy across U.S. ECPs and presbyopes.** We are focused on targeting and partnering with the estimated 15,000 ECPs who prescribed over 85% of the pharmaceutical presbyopia prescriptions in the United States in 2022 to enable efficient commercialization and rapid adoption of our product. We are currently educating ECPs on the importance of pupil-selective miotics that have a clinical profile that reduces pupil diameter below 2 mm without overstimulating the ciliary muscles. If approved, we plan to communicate the efficacy profile of the approved product and highlight the value proposition of an alternative treatment option for presbyopia for ECPs. In parallel, our commercial team will deploy a cost-effective, highly targeted and digitally-focused consumer strategy to identify, target, and build loyalty among presbyopes in the United States. We expect to commercialize through the self-pay healthcare market (without third-party reimbursement), which is strategically advantageous in the United States and enables immediate patient access and volume-based pricing strategies.

- **Continue to build an experienced commercial team with the capabilities of a leading consumer-focused company.** We have built a leadership team with extensive experience across successful life science and consumer product companies who have launched and commercialized over a dozen ophthalmic products and therapies and well-known consumer-focused brands. Our leadership team is complemented by a team of leading medical advisors across the ophthalmology and optometry fields. To ensure immediate commercialization upon the potential approval of LNZ100, we are timing the expansion of our existing commercial capabilities and the development of a sales organization of 100 to 150 individuals to coincide with the expected timing of any such approval.

- **Continue to strengthen our intellectual property portfolio.** We have developed and continue to expand a strong portfolio of intellectual property for the treatment of presbyopia with aceclidine-based eye drops. We have patent protection until 2039, at a minimum, in the United States due to a robust intellectual property portfolio underpinned by issued patents. If LNZ100 is approved, we believe that it could be the first FDA-approved aceclidine-based product and would then be eligible for five years of NCE exclusivity in the United States. We plan to actively seek to obtain, where appropriate, the broadest intellectual property protection possible by filing for additional patents or other applicable intellectual property protection covering new or enhanced proprietary technology, including new methods of use, formulations, and dosing regimens. We also rely on regulatory frameworks, trademarks, trade secrets, know-how, and continuing technological innovation and may consider in-licensing opportunities to develop and maintain our proprietary position.

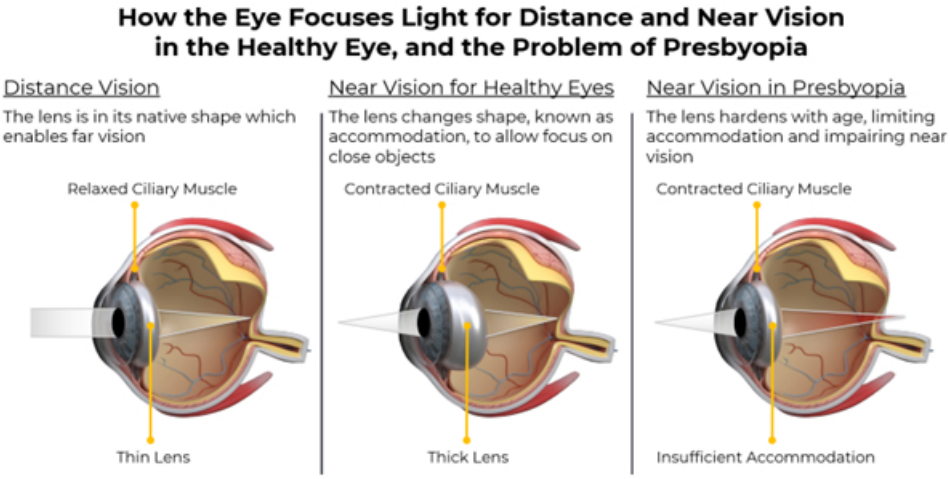
- **Opportunistically evaluate strategic and commercial opportunities.** We are focused on commercializing in the United States on our own. In addition, we have entered into a license and collaboration agreement with Ji Xing to develop product candidates in Greater China and are developing regulatory strategies and intend to opportunistically seek partnerships for Europe, Canada, and other markets. For more details, see the subsection entitled "License and Collaboration Agreement with Ji Xing Pharmaceuticals Hong Kong Limited." We believe our presbyopia program, if approved and successful, can serve as a cornerstone for building a suite of ophthalmology biopharmaceuticals. As a result, we may acquire other products or product candidates that we believe can make a substantial impact on vision and yield high user satisfaction. We may seek to maximize the commercial infrastructure and relationships with ECPs that we are currently building for our presbyopia program, to potentially offer a broad portfolio of ophthalmology biopharmaceuticals to our users to drive growth and operating leverage.

Presbyopia

Background

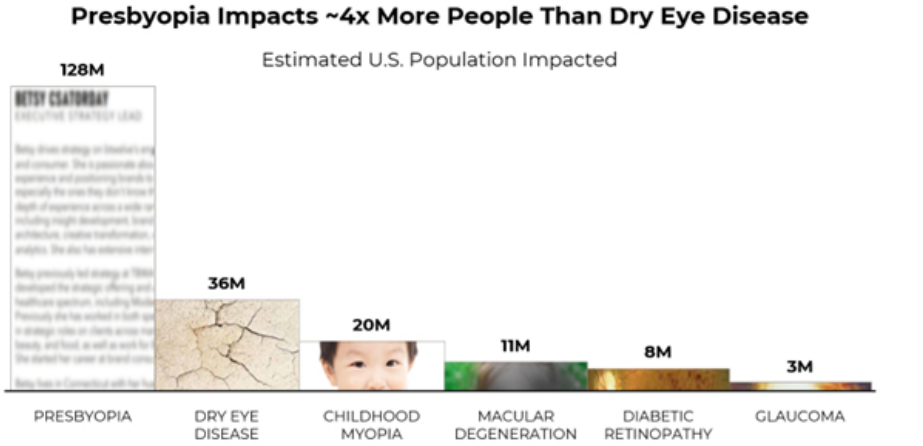
Presbyopia is the inevitable loss of near vision associated with aging. It impacts the daily lives of nearly all people over 45. As people age, the crystalline lens in their eyes gradually hardens and becomes less able to change shape. This loss of elasticity of the lens reduces the ability of the lens to focus incoming light from near objects onto the retina. Adults over age 50 lose on average 1.5 lines of near vision every six years. Although the progression of presbyopia is gradual, presbyopes often experience an abrupt change in their daily life as the symptoms become more pronounced starting in their mid-40s, when reading glasses or other corrective aids are suddenly necessary to read text or conduct close-up work. Presbyopia is typically self-diagnosed and self-managed with over-the-counter reading glasses, or managed, after evaluation by an ECP, with prescription reading or bifocal glasses or multifocal contact lenses. Currently, the only approved pharmaceutical treatment for presbyopia is marketed by AbbVie under the brand Vuity.

As illustrated in the figure below, contraction of the ciliary muscle allows the flexible lens in a healthy eye (center panel) to increase its curvature and refractive power and focus incoming light for near vision onto the retina in a process known as accommodation. As the lens hardens with age, the presbyopic lens (right panel) loses its flexibility and ability to accommodate and, despite contraction of the ciliary muscles, the incoming light for near vision no longer focuses on the surface of the retina, resulting in blurry near vision.



Market Opportunity

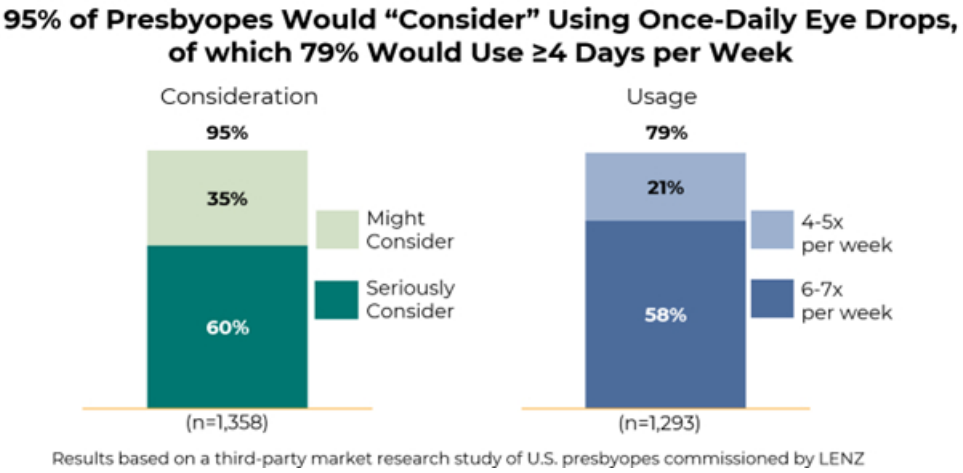
Presbyopia impacts an estimated 1.8 billion people globally and 128 million people in the United States, which makes it the most prevalent ophthalmology indication, outside latent refractive errors. On an addressable population basis, presbyopia is almost four times greater than dry eye disease and three times greater than childhood myopia, macular degeneration, diabetic retinopathy and glaucoma combined. Furthermore, the market opportunity for presbyopia is growing due to the aging of the general population. As people continue working and stay active longer, they will require effective treatment for presbyopia for near vision acuity in their daily lives.



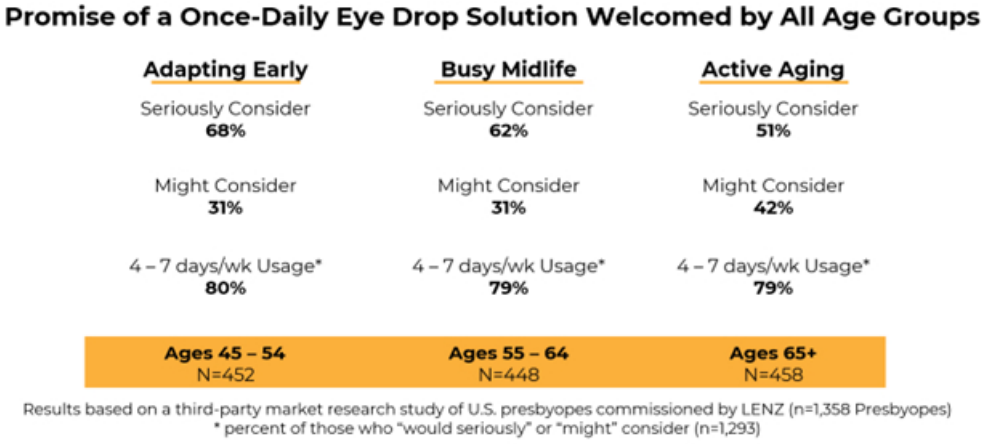
Presbyopia is a consumer-driven and cash pay market that requires intense focus on the needs and desires of presbyopes. We believe that the likely demand for a pharmaceutical option is driven by multiple factors, most notably presbyopes seeking to have a functional visual benefit in their day-to-day life, as well as those that want the cosmetic benefit of not requiring reading glasses. From a functional and cosmetic perspective, we see many similarities to the market dynamics between contact lenses and glasses. The contact lens market has grown to approximately $17 billion globally and approximately $6 billion in the United States in 2022. Contact lens users tend to have strong brand loyalty and the market has shown they are willing to spend out of pocket as an alternative to glasses for a variety of factors, including convenience, a more natural field of vision, enabling an active lifestyle and the ability to look younger. Similarly, over 10 million individuals have elected to complete laser vision correction, such as LASIK, which demonstrates a willingness to undergo elective surgical procedures to improve vision. Additionally, global sales of Botox injections for non-therapeutic applications, such as for cosmetic purposes, were $2.6 billion in 2022, demonstrating a high willingness to pay out of pocket for differentiated pharmaceutical brands. Currently, as people begin to develop presbyopia, they often have to stop using contact lenses, which seldom allow for simultaneous effective distance and near vision correction. A prescription eye drop that can be used in combination with distance correcting lenses can allow patients to stay in their contact lenses longer.

We expect that there will be a wide range of presbyopes that will be interested in using the eye drops at least four times a week as well as a smaller group that will use them on a more episodic basis. In early 2023, we commissioned a third-party consultant to conduct a market research study of at least 1,000 presbyopes in the United States, ranging from ages 45 to 74, through a 15-minute online survey. The third-party consultant contacted and screened individuals who self-identified to be open to online surveys to ensure the participants satisfied the pre-specified age and near vision acuity requirements and that the group of respondents were balanced in gender and household income. Of the individuals screened, 1,358 individuals were qualified and completed the survey, and approximately 95% indicated they would "consider" using a once-daily prescription eye drop for up to 10 hours of near vision improvement, including 60% who indicated they would “seriously consider” using such eye drop. Of the respondents who also indicated that they would either “seriously consider” or “might consider” such eye drops, 79%

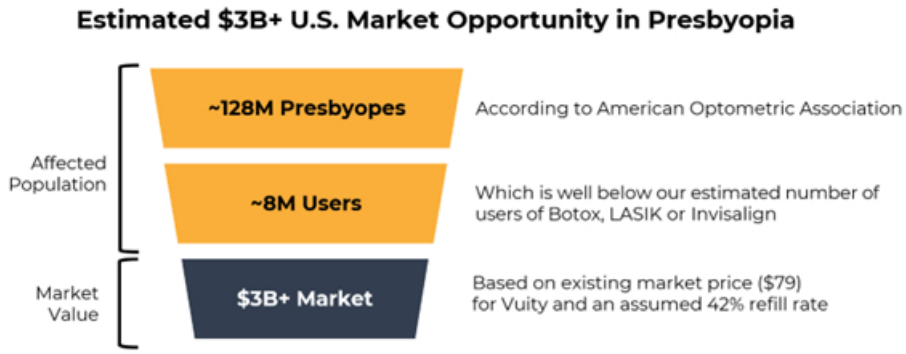
indicated they would use such eye drops at least four times a week, including 58% who indicated they would use such eye drop six to seven times a week.



Furthermore, presbyopes indicated potential demand across multiple age cohorts across the following stages, including those adapting early (ages 45 to 54), busy midlife (ages 55 to 64) and active aging (ages 65+). 68% of respondents ages 45 to 54 (n=452) would "seriously consider" and another 31% "might consider" such eye drop, of which 80% (of those who would consider such eye drops) would use such eye drop at least four times a week. For respondents ages 55 to 64 (n=448), 62% would "seriously consider" and another 31% "might consider" such eye drop, of which 79% would use such eye drop at least four times a week, and for respondents ages 65 to 74 (n=458), 51% would "seriously consider" and another 42% "might consider" such eye drop, of which 79% would use such eye drop at least four times a week. This market survey aligns with our patient reported outcomes from our CLARITY Phase 3 study, where 75% of the 223 participants surveyed on the 28th day of receiving LNZ100 indicated interest in continuing to use the eye drops after the study, of which 81% would use the drops at least four times a week.



There is high demand for prescription eye drop-based treatments. In 2022 alone, more than 120,000 unique users paid out-of-pocket for a prescription for Vuity, the first miotic-based eye drop approved by the FDA in late 2021. Furthermore, the market opportunity for presbyopia is growing due to the aging of the general population and as people continue working and stay active longer they will require effective treatment for presbyopia for near vision acuity in their daily lives. Assuming a 6% adoption rate of the addressable presbyope patient population in the United States, we estimate there are eight million potential users in the United States for LNZ100, if approved and marketed, well below our estimate of the number of users of other out-of-pocket products such as LASIK. Using existing market price for Vuity of $79 per prescription and assuming a 42% refill rate (or five refills in a twelve-month period), we estimate a U.S. market opportunity in excess of $3 billion.



Approaches to Manage or Treat Presbyopia and Their Limitations

Currently, the primary options available for the management of presbyopia are limited to reading glasses or multi-focal glasses and contact lenses. The only currently FDA-approved pharmaceutical treatment for presbyopia is marketed by AbbVie under the brand Vuity.

Glasses and Contact Lenses

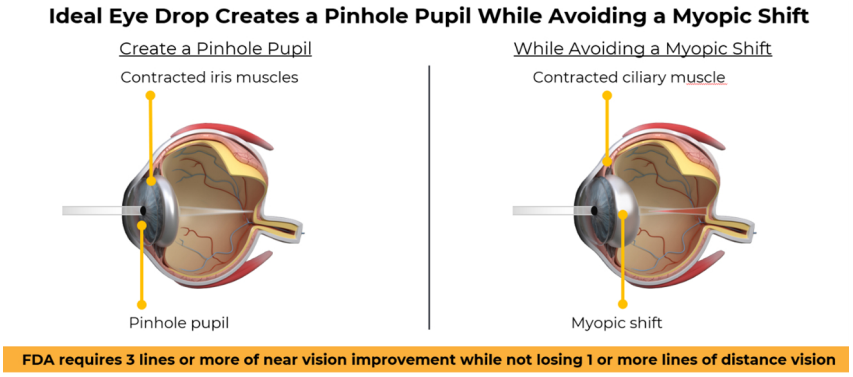
Over-the-counter or prescription reading glasses ("readers"), prescription bifocal glasses and lenses ("bifocals"), graduated glasses ("transitions"), and multifocal contact lenses are commonly used to correct for presbyopia by focusing near objects on the retina. The additional refractive power that these types of corrective lenses offer can also be combined with other vision corrections in the same prescription lenses. However, users often report dissatisfaction with the inconvenience caused by having to wear and carry glasses or insert and remove contact lenses. There are also undesirable cultural connotations associated with the use of glasses, especially reading glasses, as they can be associated with aging. Additionally, these products require a trade-off between near vision and distance vision, either removing the readers, or looking at different areas of the bifocals.

Eye Drops

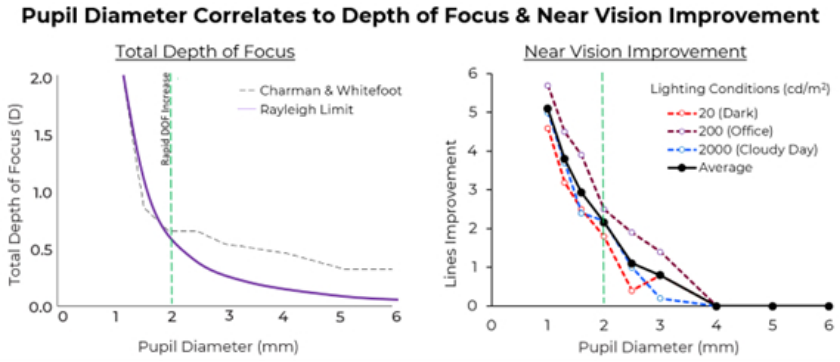
Eye drops can be an attractive method of treatment for presbyopia, especially when they only need to be administered once daily and effectively improve near vision throughout the full workday. Such an option can obviate the need to carry and wear reading glasses.

Miotics are pharmacological agents that are being developed and commercialized for the treatment of presbyopia. Miotic agents treat presbyopia by creating a pinhole effect to increase the depth of focus and thus improve the ability to see up-close. The pinhole effect is based on an optical effect whereby the depth of focus is inversely correlated with the size of the opening that light travels through. When light passes through a small pinhole or pupil, the rays that hit the outer areas of the eye and would need the most refraction to be focused on one point of the retina are blocked, leaving only the center rays which require minimal refraction to land on the retina to form a clear image. In presbyopes who have minimal accommodation or refraction ability left in their lens, this pinhole effect improves their ability to clearly see objects that are up-close. Because some miotics are historically

known to negatively impact distance vision caused by a potential myopic shift associated with stimulation of the ciliary muscle, the FDA has indicated that the clinical endpoint for the approval of eye drops for the treatment of presbyopia is showing three-lines or greater (15 letters) of improvement in near visual acuity as a result of the reduction of the pupil diameter without losing one or more line (5 letters) in distance visual acuity.



Independent, peer-reviewed, academic studies conducted by third parties and summarized by W. Neil Charman in a published editorial[1] have shown that pupil diameter is highly correlated with the depth of focus and that reducing pupil diameters below 2 mm is correlated with a dramatic increase in depth of focus (left graphic below). Similarly, in another independent, peer-reviewed, academic study[2] of near vision improvement conducted by a third party across a variety of lighting conditions, pupil diameters below 2 mm were correlated with two- to five-lines or greater improvement in near visual acuity (right graphic below).



Comparison of Miotics

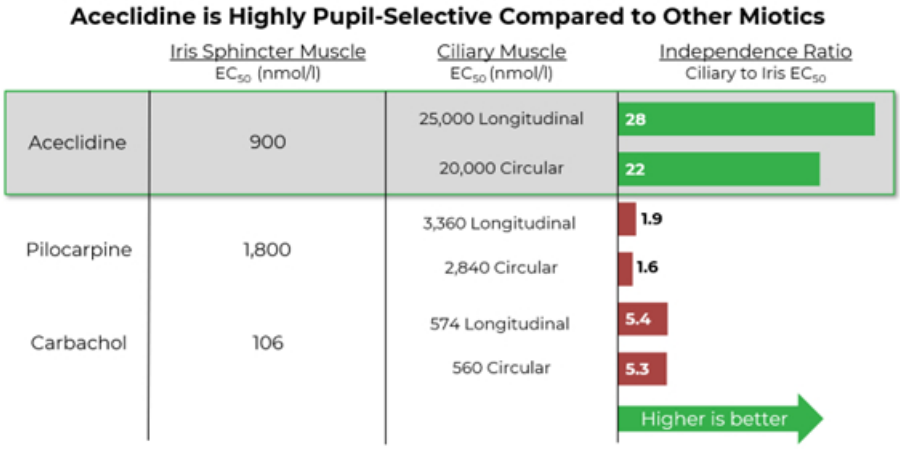
LNZ100 is designed and formulated with aceclidine, a unique miotic, to achieve the below 2 mm pupil diameter without impacting distance vision, a key limitation seen by other miotics. Unlike other miotics such as pilocarpine and carbachol, aceclidine's mechanism of action is pupil-selective, meaning it can activate the iris sphincter muscle and cause miosis without overstimulating the ciliary muscles that can cause a myopic shift and impair distance vision. Due to its pupil-selectivity and its ability to reduce the pupil diameter below 2 mm, aceclidine does not

[1] Charman, W.N. (2019), Pinholes and presbyopia: solution or sideshow?. Ophthalmic Physiol Opt, 39: 1-10; Ciuffreda, K.J., Rosenfield, M., Mordi, J., Chen, HW. (2000). Accommodation, age and presbyopia. In: Franzén, O., Richter, H., Stark, L. (eds) Accommodation and Vergence Mechanisms in the Visual System. Birkhäuser, Basel.

[2] Xu, R, Gil, D, Dibas, M, Hare, W, and Bradley, A, The Effect of Light Level and Small Pupils on Presbyopic Reading Performance. Investigative Ophthalmology & Visual Science October 2016, Vol.57, 5656-5664.

require any remaining accommodation to improve near vision, broadening its benefit to older presbyopes whose lens has lost this capacity.

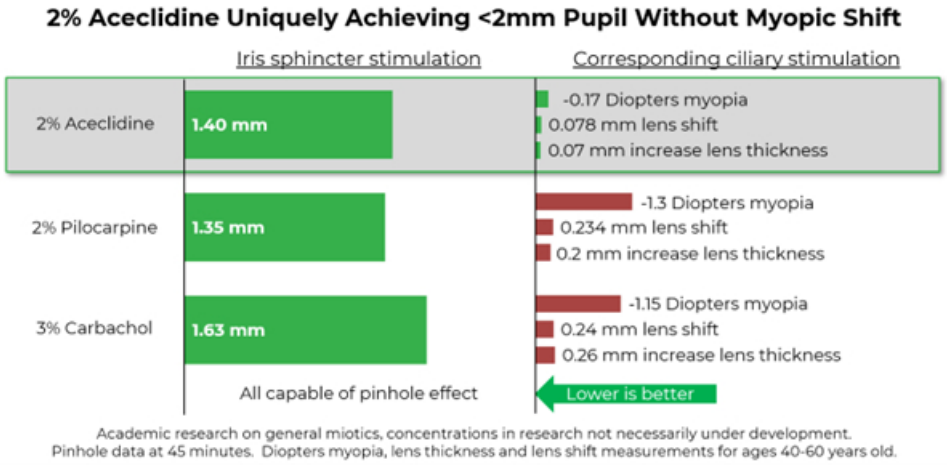
The potency of a miotic towards the iris sphincter muscle or ciliary muscles can be expressed by EC50, the drug concentration required to produce 50% of its maximal effect, and its degree of pupil-selectivity can be expressed by the independence ratio, the ratio of the EC50 for the ciliary muscles to EC50 for the iris sphincter muscle. Based on a third-party, independent, peer-reviewed, academic study[3] of the selectivity of certain miotics on human intraocular muscles, the independence ratio of aceclidine between the longitudinal ciliary muscle and the iris sphincter muscle can be calculated to be 28, and between the circular ciliary muscle and iris sphincter muscle to be 22, compared to 1.9 and 1.6, respectively, for pilocarpine and 5.4 and 5.3, respectively, for carbachol. The 11 to 17 times higher independence ratio of aceclidine compared to pilocarpine reflects its pupil-selectivity.



In addition to the independence ratio, another independent, peer-reviewed, academic in vivo study[4] looked at the correlation of pupil diameter and visual distortion caused by the myopic shift of various miotics, including aceclidine at a concentration different from LNZ100, which contains 1.75% aceclidine. The distortion is expressed in diopters ("D"), a measurement of focusing strength and distance used widely by ECPs to measure vision. Less change in diopter strength equates to lower disruption to distance vision. The results show that, among 40- to 60-year-old patients, treatment with 2% aceclidine results in reducing the pupil diameter below 2 mm with a negligible myopic shift as compared to 2% pilocarpine and 3% carbachol which drive respectively a -1.3D and -1.15D of myopic shift, respectively. A 1.0D myopic shift changes 20/20 vision to 20/50 distance vision, which can be measured as a decrease of four lines of vision in an eye exam. 20/20 visual acuity means that a person can see at 20 feet what should normally be seen at that distance. 20/50 visual acuity means that a person needs to be at 20 feet to see what a normal person can see at 50 feet. A minimum of 20/40 vision is required to complete a driver's test, so the >1.0D

[3] H Ishikawa, L DeSantis, PN Patil, Selectivity of muscarinic agonists including (+/-)-aceclidine and antimuscarinics on the human intraocular muscles, J Ocul Pharmacol Ther. 1998 Aug;14(4):363-73
[4] J. François; F. Goes, Ultrasonographic Study of the Effect of Different Miotics on the Eye Components, Ophthalmologica (1977) 175 (6): 328–338.

myopic shift caused by pilocarpine and carbachol is enough to make an otherwise able driver now unfit to drive.



When using non-pupil selective miotics, a trade-off is required between improvement in near vision and reduction in distance vision. Because aceclidine is a pupil-selective miotic and can reduce pupil diameter below 2 mm without overstimulating the ciliary muscles, no such compromise is needed.

In addition, contraction of the ciliary muscle by drugs such as carbachol and pilocarpine pulls on a critical area of the eye where these muscle fibers connect to the retina. This constant tugging or pulling by the stimulated ciliary muscle can lead to retinal traction, vitreous detachments, secondary retinal pathology, and in severe cases, retinal detachments. Besides being described in peer-reviewed literature on chronic pilocarpine use for glaucoma, retinal detachments have also been reported by Vuity users. In August 2022, Vuity's label was amended by the FDA to include a warning related to cases of retinal tears and detachments being reported with Vuity specifically, as opposed to miotics in general. In addition, the revised label advises having ECPs examine the retina of all patients prior to initiation of therapy. Despite the potential severity, concerns related to the risk of retinal tears and detachments ranked third behind low efficacy and low duration of efficacy among reasons why survey participants discontinued treatment with Vuity. Given that aceclidine has minimal effect on the ciliary muscle, we believe that the risk of side effects caused by activating the ciliary muscle are also reduced.

To date, the only approved pharmaceutical treatment for presbyopia is an eye drop using pilocarpine as the active ingredient that is marketed by AbbVie under the brand Vuity. Despite an initial strong commercial launch with over 120,000 unique user prescriptions filled in 2022, the refill rate has lagged, primarily due to lower-than-expected efficacy and duration. Based on our commissioned survey of 40 ECPs, a majority reported that the barrier to Vuity adoption was that the product either did not work or did not work long enough. An additional survey of 18 optometrists indicated that 66% of their patients did not see duration past four hours despite one of the Vuity clinical trial results showing some effectiveness to the sixth hour. While this aligns with the primary endpoint of at three hours in both Phase 3 trials, the functional benefit was not sufficient enough to support patient needs. The ECPs and their patients identified the low effectiveness and short duration of effectiveness as the key factors for discontinuing use. To resolve the duration issue, AbbVie tested a twice-a-day dosing of the same formulation following initial approval of Vuity and achieved FDA approval for this updated dosing frequency in March 2023. The updated Vuity label now recommends that a second dose may be administered three to six hours after the first dose. Nonetheless, we believe users are looking for a once-daily solution that can last the full workday, which is further supported by the lack of increased Vuity uptake thus far following FDA approval of this label amendment.

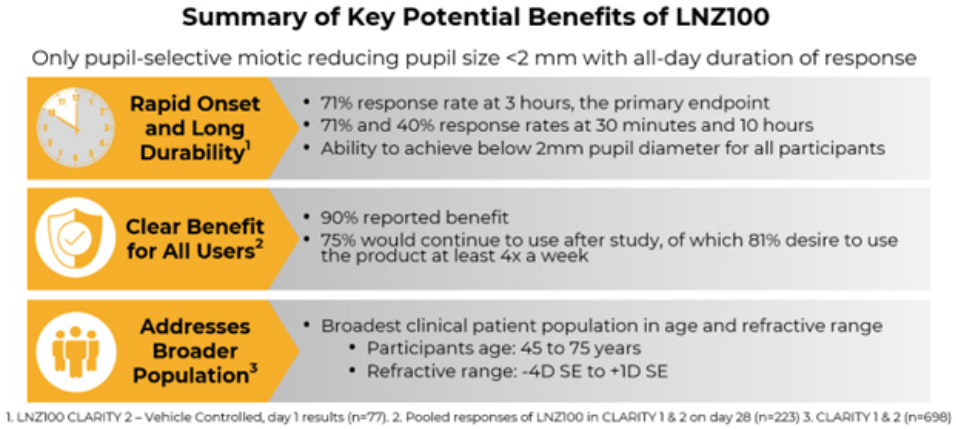
Furthermore, Vuity was primarily tested in younger presbyopes ranging from ages 40 to 55 with the average age of 50 in each of its Phase 3 GEMINI trials. Therefore, we expect that older users may experience even less effect as

they have little or no remaining accommodation to be activated to improve near vision, and Vuity has not been shown to reduce pupil diameter below 2 mm.

Overall, the current treatment paradigm for presbyopia leaves much to be desired and is largely limited to symptom management or insufficiently effective pharmaceutical options. Evidence from patient surveys on their experience demonstrates patient appetite for a longer-lasting and holistic solution to the treatment of presbyopia.

Our Solution: LNZ100

Our lead product candidate LNZ100 is a single-use eye drop being developed to restore loss of near vision associated with presbyopia. LNZ100 contains 1.75% aceclidine as the sole active ingredient and is designed to be a once-daily dose that can potentially provide at least 10 hours of improved near vision. LNZ100 is preservative-free enabling it to be single-use, which is a more convenient delivery method for eye drops for users, and further differentiates us from Vuity. In our CLARITY 1 and CLARITY 2 Phase 3 trials, LNZ100 achieved its pre-specified primary endpoint of three-lines or greater improvement in BCDVA at near without losing one or more lines in distance visual acuity at three hours post-treatment, with a response rate of 71% ($p<0.0001$) compared to 8% for vehicle. Based on these positive results in our Phase 3 trial, we selected LNZ100 as our lead product candidate and plan to submit an NDA to the FDA in mid-2024 with a launch target date in the second half of 2025.



Aceclidine

We selected aceclidine, the key ingredient in LNZ100, for presbyopia because of its pupil-selective mechanism of action. The formulation was specifically designed to achieve a below 2 mm pupil diameter without impacting distance vision, a key limitation seen with other miotic agents, such as pilocarpine and carbachol. As evidenced above in the independence ratio and degree of myopic shift, aceclidine as an agent has robust clinical evidence to support the mechanism of action in achieving the key measures to both improve vision in normal and low light, while avoiding a myopic shift that impairs distance vision. Additionally, due to this pupil-selective mechanism of action, aceclidine does not require any remaining accommodation.

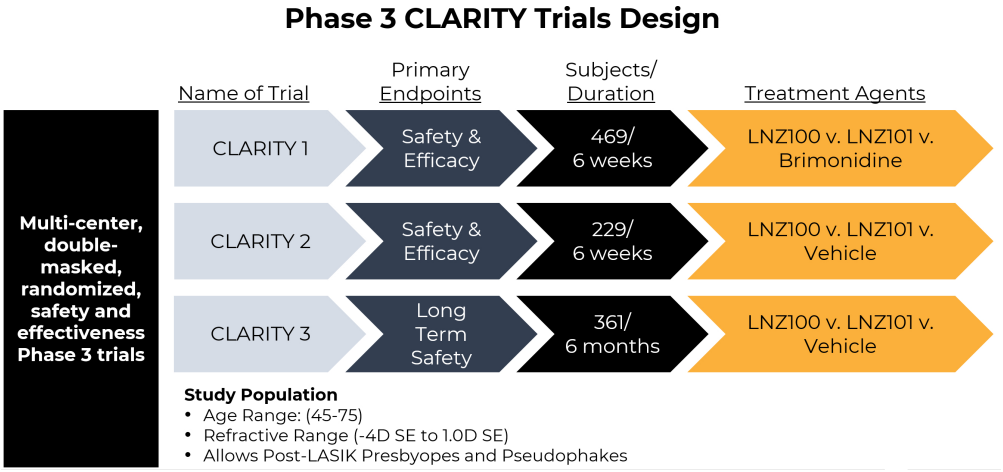
Furthermore, aceclidine has also been used in Europe since the 1970s as an eye drop for treatment of glaucoma and was marketed by Merck under the brand name Glaucostat. Aceclidine was previously marketed in at least twelve European countries, during which time over 400 million doses were administered up to four times a day and at higher concentrations than proposed for LNZ100, and it was well-tolerated with no known reports of tachyphylaxis, which is a sudden decrease in drug response. Aceclidine's pupil-selective mechanism of action and reduced effect on the ciliary muscles made it a less desirable glaucoma treatment because it did not lower pressure as much as other marketed miotics. For the same reasons, it is potentially a better treatment for presbyopia than those other miotics. Though it has been used extensively throughout Europe, aceclidine was never commercialized in the

United States, reportedly because the lyophilized, or freeze-dried, nature of the glaucoma product presented complex supply chain issues. Nonetheless, given aceclidine's broad safety profile, documented through decades of commercial use in Europe, and unique mechanism of action, we believe LNZ100 has the potential to treat a broad population of presbyopes globally as they are ready-to-use, stable liquid formulations of aceclidine.

CLARITY Phase 3 Clinical Trials (the "CLARITY Study")

In April 2024, we reported topline results from the CLARITY study, a Phase 3 multi-center, double-masked, randomized, controlled, efficacy and safety study for LNZ100 and LNZ101 for the treatment of presbyopia. The CLARITY study is comprised of three Phase 3 trials:

- ***CLARITY 1*** ("NCT05656027") is a six-week, multi-center, double-masked, randomized trial that evaluated the efficacy and safety of LNZ100 and LNZ101. CLARITY 1 enrolled 469 participants, who were randomized to receive LNZ100, LNZ101 or brimonidine (at a 1:1:1 ratio) bilaterally.
- ***CLARITY 2*** ("NCT05728944") is also a six-week, multi-center, double-masked, randomized, Phase 3 evaluation of the efficacy and safety of LNZ100 and LNZ101 for the treatment of presbyopia. CLARITY 2 enrolled 229 participants, who were randomized to receive LNZ100, LNZ101 or vehicle (at a 1:1:1 ratio) bilaterally.
- ***CLARITY 3*** ("NCT05753189") is a six-month multi-center, double-masked, randomized, Phase 3 long-term safety study of LNZ100 and LNZ101 for the treatment of presbyopia. CLARITY 3 enrolled 361 participants, who were randomized to receive LNZ100, LNZ101 or vehicle (at a 2:2:1 ratio) bilaterally.



The trials enrolled a total of 1,059 participants ranging from ages 45 to 75, and a refractive range of -4.0D SE to +1.0D SE with a baseline near visual acuity of 20/50 or worse. Some participants had previously undergone prior vision correction, such as LASIK, or cataract extraction with lens implant (referred to as "pseudophakia"). At the first visit, the participants were randomly assigned to one of three cohorts, which determined whether the participant would be treated with LNZ100, LNZ101 or the control, which was brimonidine for CLARITY 1 and vehicle for CLARITY 2 and 3. Participants used their assigned treatment agent every day once-daily. An aggregate of 234 participants in CLARITY 1 and 2 combined were assigned to use LNZ100 over the 42-day safety study period and in CLARITY 3, 144 participants assigned to use LNZ100 over the 180-day period, resulting in more than 30,000 LNZ100 treatment days across all three CLARITY trials.

The primary efficacy endpoint in both CLARITY 1 and 2 is the percentage of participants who achieve three-lines or greater improvement in BCDVA at near without losing one-line or more (5 letters or more of distance

vision) at three hours post-treatment relative to control. BCDVA in this context refers to the best possible distance vision that an individual's eye can see using corrective lenses. BCDVA is a standard used in ophthalmology and optometry to determine the refractive state of the eye (nearsighted vs. farsighted). Having subjects use appropriate corrective lenses to see well at distance allows assessment of near vision deficits and comparisons across participants who may have different distance visual acuity. Additionally, we believe that using BCDVA provides the most accurate representation of the impact of the product candidate as it is intended to be used together with any distance corrective lenses that a user may need.

Each participant was monitored and visual acuity was measured by a standardized eye test at certain timepoints from 30 minutes to 10 hours post-treatment, provided that on Day 15, efficacy in CLARITY 1 and 2 was measured over shorter period of 3 hours and on Day 42, only safety parameters were measured. We also measured the impact on distance vision in normal and low light at various timepoints. Participants also completed on Day 28 a patient-reported outcome questionnaire, and other assessments and measurements, such as the pupil diameter, which is considered a biomarker for near vision improvement, were also taken.

Summary Trial Results

As shown in the figure below (with all p-value <0.0001), both LNZ100 and LNZ101 achieved the primary endpoint of three-lines or greater improvement in near visual acuity at three hours post-treatment, without losing one or more lines in BCDVA, in both CLARITY 1 and CLARITY 2. In the vehicle-controlled CLARITY 2, 71% (p<0.0001) and 91% (p<0.0001) of participants receiving our lead product candidate LNZ100 achieved three- and two-lines or greater improvement, respectively, compared to 12% and 22% for vehicle on Day 1. For the brimonidine-controlled CLARITY 1, 64% (p<0.0001) and 83% (p<0.0001) of participants receiving LNZ100 achieved three- and two-lines or greater improvement, respectively.

		CLARITY 1			CLARITY 2		
		LNZ100	LNZ101	Brimonidine	LNZ100	LNZ101	Vehicle
30 Min (Onset)	3 line	72%	56%	14%	71%	63%	12%
	2 line	87%	78%	38%	91%	72%	22%
3 Hour (Primary for ≥ 3-line)	3 line	64%	49%	12%	71%	57%	8%
	2 line	83%	70%	29%	91%	81%	24%
10 Hour (Duration)	3 line	27%	37%	6%	40%	39%	5%
	2 line	61%	59%	21%	69%	67%	21%

Day 1 Based on full analysis set.

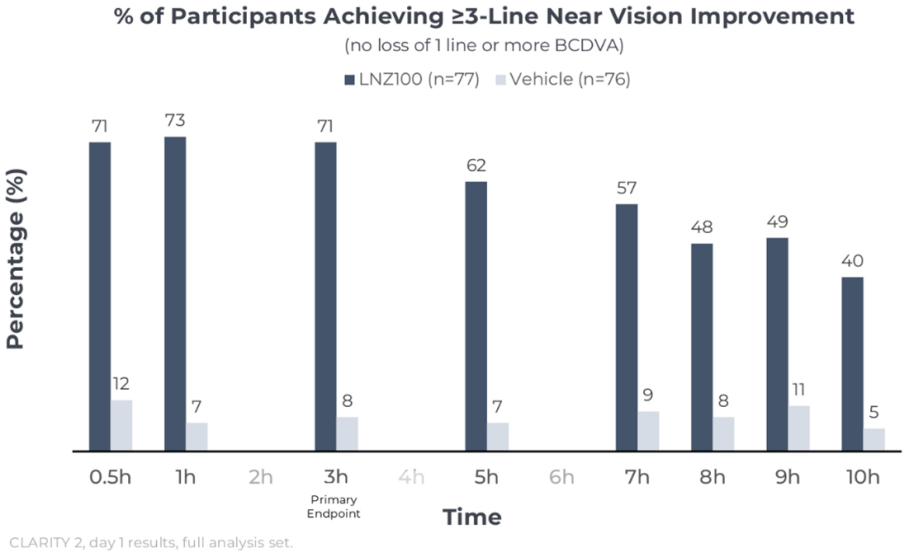
In the description of the results of our clinical trials herein, p or p-values represent the probability that random chance caused the result (e.g., p<0.0001 means that there is less than a 0.01% probability that the difference between the vehicle and the treatment groups is due to random chance). A p-value ≤ 0.05 is a commonly used criterion for statistical significance and is usually considered supportive of a finding of efficacy by regulatory authorities.

Our other product candidate LNZ101 showed similar results, including achieving primary and secondary endpoints in both CLARITY 1 and 2, but did not show superiority to LNZ100.

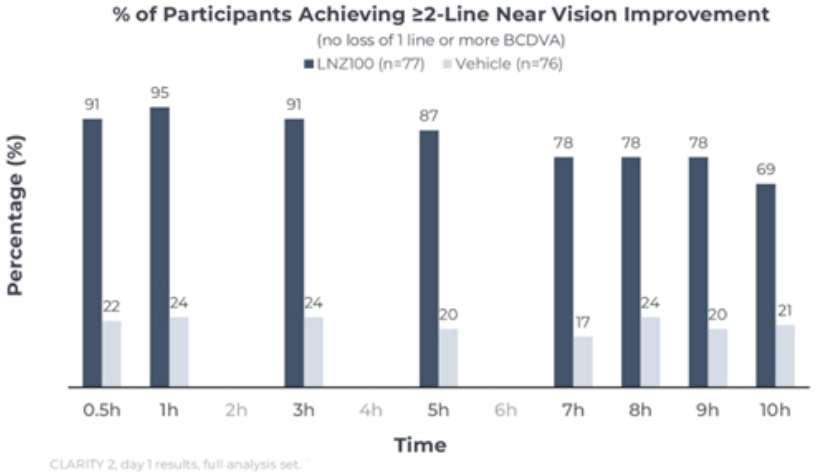
LNZ100: Vehicle-controlled CLARITY 2 Efficacy Results

LNZ100 showed rapid onset with response rates of 71% (p<0.0001), at 30 minutes post-treatment, the earliest timepoint measured, and LNZ100 maintained statistical significance of three-lines or greater improvement in near visual acuity compared to vehicle for all timepoints measured. At 10 hours post-treatment, the last measured

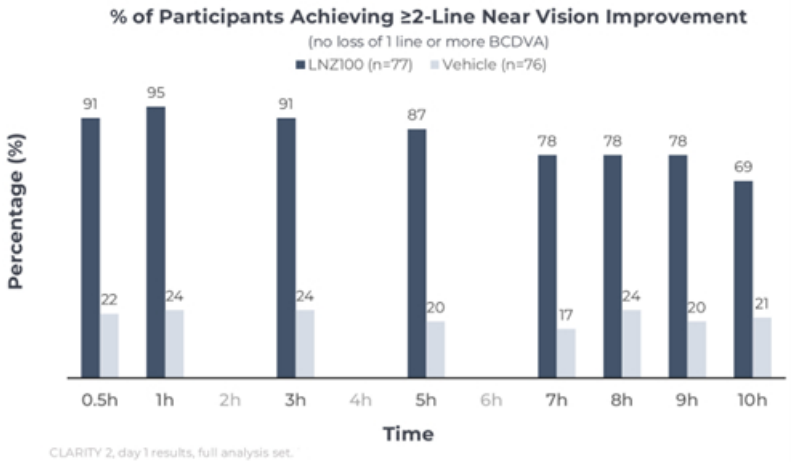
timepoint, 40% (p<0.0001) of users dosed with LNZ100 maintained a three-lines or greater improvement in near visual acuity compared with 5% of users dosed with vehicle.



We believe the clinical benefit of LNZ100 is consistent, robust and reproducible. As shown in the figure below, participants experienced similar near vision improvement across the four-week study period with 81% (p<0.0001) and 82% (p<0.0001) response on Day 15 and Day 28, respectively, at 30 minutes post-treatment compared to 71% (p<0.0001) on Day 1, with 78% (p<0.0001) and 78% (p<0.0001) response on Day 15 and Day 28, respectively, at three hours post-treatment compared to 71% (p<0.0001) on Day 1, and 35% (p<0.0001) on Day 28 at ten hours post-treatment compared to 40% (p<0.0001) on Day 1. On Day 15, no measurements were taken beyond 3 hours post-treatment.

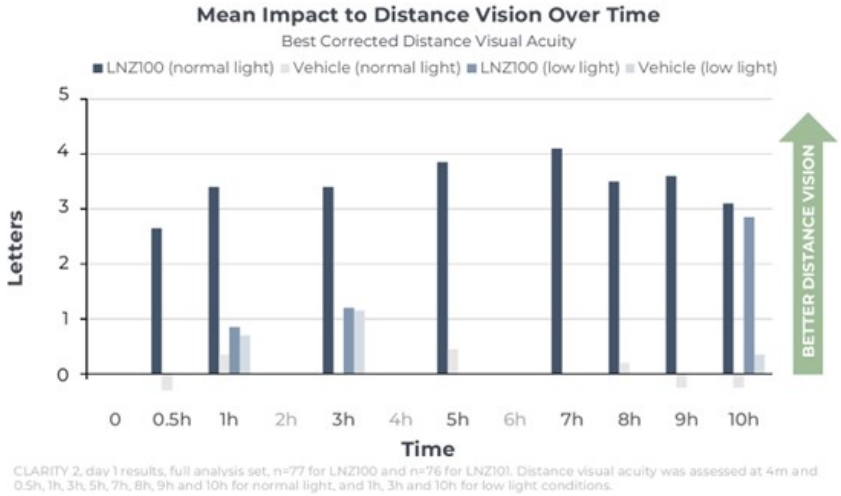


LNZ100 also achieved the pre-specified secondary endpoint of two-lines or greater improvement in BCDVA at near without losing one or more lines in distance visual acuity at three hours post-treatment, with a response rate of 91% ($p<0.0001$) compared to 24% for vehicle. LNZ100 also showed rapid onset with response rates of 91% ($p<0.0001$) compared to 22% for vehicle at 30 minutes post-treatment, the earliest timepoint measured, and maintained statistical significance of two-lines or greater improvement in near visual acuity compared to vehicle for all timepoints measured. At 10 hours post-treatment, the last measured timepoint, 69% ($p<0.0001$) of users dosed with LNZ100 maintained a two-lines or greater improvement, compared to 21% of users dosed with vehicle. Standard clinical practice considers two-lines or greater improvement in near visual acuity to be clinically meaningful.



LNZ100 had no adverse impact on distance vision across all timepoints measured including 30 minutes and 1, 3, 5, 7, 8, 9 and 10 hours post-treatment in normal light conditions and 1, 3 and 10 hours in low light conditions. In fact, at normal light, there was statistically significant improvement of two to four letters of distance vision at all time points. We believe these improvements are due to pupil constriction which block the peripheral light that is most likely to travel across aberrations, or nuanced distortions within the eye's structure, and cause blurry vision.

We believe the reduction in distance vision observed in the placebo group is due to progressive eye fatigue across multiple assessments for each timepoint measurement.



LNZ100: Pooled Safety Analysis

Across all three CLARITY trials, an aggregate of 378 participants received LNZ100. LNZ100 was well tolerated with no drug-related serious adverse events in the more than 30,000 treatment days across all CLARITY trials. The only reported adverse events with an incidence at 5% or more were instillation site pain, visual impairment, hyperemia and headaches. 95% of all the adverse events experienced were mild.

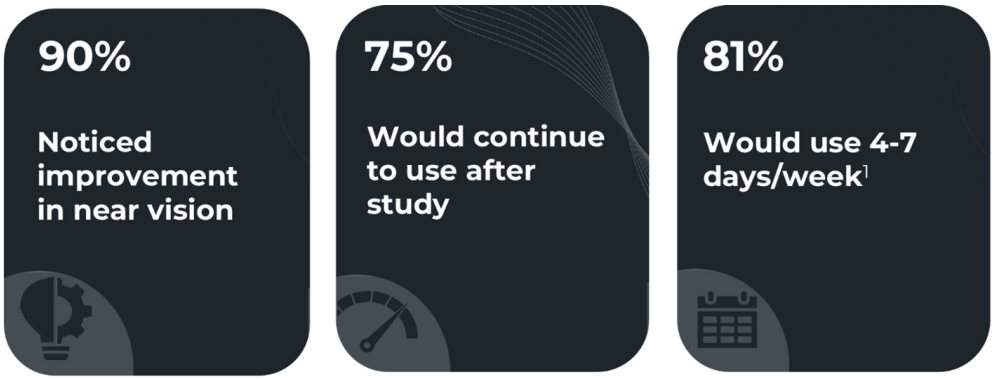
Pooled analysis of CLARITY 1 & 2

	LNZ100 N=234 n(%)		**Vehicle** N=76 n(%)
Ocular AEs			
Instillation site irritation *(mild stinging upon instillation)*[1]	47 (20.1%)	100% mild	8 (10.5%)
Visual impairment *(mild dimness)*[1]	31 (13.2%)	100% mild	1 (1.3%)
Hyperemia *(mild eye redness)*	21 (9.0%)	100% mild	2 (2.6%)
Non-Ocular AEs			
Headache	27 (11.5%)	89% mild 7% moderate	3 (3.9%)

List contains all AEs over 5%, [1] general most common descriptor used by participants

LNZ100: Patient Reported Outcomes in CLARITY 1 and 2

On Day 28, each participant in CLARITY 1 and 2 completed a patient-reported outcome questionnaire regarding their experience across the prior 30 days. 90% of participants who received LNZ100 and were surveyed (n=223) indicated that they noticed improvement in near vision and 75% wished to continue to use drops after the study, of which 81% indicated that they were likely to use the drops at least four times a week.



Pooled responses of LNZ100 in Clarity 1 & 2 on day 28, n=223. Based on patient questionnaire "Reflecting on the last 30 days..." "Have you noticed an improvement in your near vision/ability to see up close after taking the drop?", "Would you be interested in continuing to use these eye drops after the study?", "How many days a week are you likely to use these eye drops?" 1. % of participants that indicated 'yes' to "Would you be interested in continuing to use these eye drops after the study?"

Having successfully completed all three CLARITY trials, we plan to submit an NDA for LNZ100 to the FDA in mid-2024 with a launch target date in the second half of 2025.

Currently Marketed Eye Drops

Vuity was approved as the first pharmaceutical treatment for presbyopia in October 2021. Despite enthusiasm for the concept of an eye drop improving near vision throughout the full workday, Vuity's reportedly lower than expected efficacy, duration and adverse event profile, contributed to lower than anticipated prescription refill rates. To resolve the duration issue, AbbVie tested a twice a day dosing of the same formulation following initial approval of Vuity and achieved FDA approval for this updated dosing frequency in March 2023. In addition, Vuity's label was amended to include a warning and precaution related to rare cases of retinal detachment and retinal tears reported with miotics, including Vuity.

Vuity's FDA approval in October 2021 was based on results from two 30-day pivotal, Phase 3, randomized, double-masked, vehicle-controlled trials, GEMINI 1 and GEMINI 2. A total of 750 participants aged 40 to 55 with presbyopia with best distance correction inclusion criteria of sphere ranging from -4.00D to +1.00D (inclusive) and cylinder ≤ ±2.00D were randomized in these two trials and patients were instructed to administer one drop of Vuity or vehicle daily in each eye. In both trials, a statistically significant but minority portion of participants (31% of patients in GEMINI 1 and 26% of patients in GEMINI 2) showed three-lines or greater improvement in Distance Corrected Near Visual Acuity ("DCNVA") which is equivalent to BCDVA measured at 40 centimeters, without losing more than 1 line of Corrected Distance Visual Acuity ("CDVA") at three hours post-treatment (the last statistically significant timepoint in GEMINI 2) on Day 30. The peak response rate at 1 hour post-treatment relative to vehicle in GEMINI 2 is 25%.

Although our CLARITY trials focused on enrolling presbyopes from ages of 45 to 75, the GEMINI trials enrolled a younger patient population ranging from ages 40 to 55 with an average age of 50 in each trial and predominantly emmetropic subjects (76% were emmetropes with sphere ranging from –0.50 D to +0.75 D and cylinder: ≤0.75 D). Moreover, data from the GEMINI 1 trial demonstrated that Vuity could not achieve a pupil diameter below 2 mm at any timepoint over the course of 10 hours post-treatment.

Commercialization

Our objective is to commercialize a product that we believe will most effectively meet the needs of the widest range of presbyopes and best create loyalty and value based on an "all eyes, all day" brand mission. Based on the Phase 3 CLARITY results, we selected LNZ100 as our lead product candidate and intend to submit an NDA in mid-2024 prepare for commercialization and a launch target date in the second half of 2025.

We are focused on commercializing in the United States on our own. In addition, we are developing regulatory strategies and intend to opportunistically seek partnerships for Europe, Canada, and other markets. We have recently entered into a license and collaboration agreement with Ji Xing to develop product candidates and products containing aceclidine and brimonidine for the treatment of patients with presbyopia in Greater China. For more details, see the subsection entitled "License and Collaboration Agreement with Ji Xing Pharmaceuticals Hong Kong Limited." We are continuing to evaluate potential partnerships to pursue regulatory and commercialization in other markets.

Experienced Commercial Team

We plan to use the cash and cash equivalents from the Merger and the PIPE Financing, in part, to continue to build the sales and marketing infrastructure required to successfully commercialize our lead product candidate in anticipation of FDA approval.

We have substantially completed hiring of all senior leadership roles in the commercial team, including adding industry veterans with extensive experience in the pharmaceutical space. Our commercialization effort is led by our Chief Commercial Officer Shawn Olsson, who manages a team of seasoned sales and marketing executives, who have helped launch and commercialize over a dozen ophthalmic products and therapies, including Acuvue, Alphagan P, Combigan, Dailies AquaComfort Plus, Durysta, Lumigan, Pred Forte, Refresh, Restasis, Truetear, and Vuity, as well as major user-focused brands such as Botox, Herbalife and Ray-Ban.

To ensure immediate commercialization upon the potential approval of our lead product candidate, we are timing the expansion of our existing commercial capabilities and the development of a sales organization of 100 to 150 individuals to coincide with the expected timing of such potential approval.

Proactive Execution of Commercial Strategy

Our commercial team has already made substantial progress in executing on our foundational commercial strategy, including selection and submission of a proprietary name, selection of an advertising agency, development of sales organization size and design, ECP segmentation and targeting, selection of a sampling vendor, selection of an e-pharmacy partner, selection of our third-party logistics ("3PL") provider, obtaining relevant state licensures, and setting up a customer relationship management system.

ECP-Focused Sales Strategy

We plan to launch with our own sales organization in the United States, which we envision will expand to 100 to 150 individuals. Our strategy involves initially targeting and partnering with the estimated 15,000 ECPs who prescribed over 85% of the pharmaceutical presbyopia prescriptions in the United States in 2022. Additionally, we will expand beyond the initial set of high-prescribing ECPs by demonstrating the unique value proposition of providing a treatment for presbyopia. We will leverage our strong relationships with key opinion leaders to facilitate awareness regarding the importance of reducing the pupil diameter below 2 mm and using a pupil-selective miotic to avoid overstimulating the ciliary muscle. Our sales strategy will empower ECPs to be actively involved in the diagnosis and treatment of presbyopia for the aging population, including a consumer sampling program described in "Consumer Sampling Strategy." If our product is approved, we expect to see more ECPs begin to prescribe prescription-based eye drops, which will drive more patients requesting prescriptions who otherwise may not have sought appointments with ECPs for other eye conditions. If we elect to expand our product offerings in the future, we will be able to leverage a larger community of prescribing ECPs to support product uptake.

Consumer Focused Strategy

If the NDA is approved, we also plan to deploy, in parallel, a cost-effective, highly targeted and digitally-focused consumer strategy designed to efficiently target the early adopters among the estimated 128 million presbyopes in the United States. This will drive user awareness and interest through digital, offline, and social marketing to create brand awareness, develop brand loyalty, and eventually enable long-term brand durability and recognition. Our strategy involves driving consumer awareness of an effective treatment of presbyopia with prescription eye drops and creating an emotional connection to returning to life prior to presbyopia. A key component to consumer experience is our sampling program that will provide a free option for potential users to try as described in "Consumer Sampling Strategy". To meet the long-term usage needs of young and old presbyopes, we plan to offer both retail access and collaborate with e-pharmacy vendors to provide easy and convenient prescription fulfillment and home delivery.

Consumer Sampling Strategy

If the NDA is approved, we intend to establish a consumer sampling program that will be a key component to the consumer experience and reduce barriers to trial and adoption. We believe LNZ100 is highly suitable for a consumer sampling program as users in our clinical trials have experienced rapid onset and noticeable near vision improvement after a single dose. Our commercial team has already engaged with vendors for storage and distribution of samples to support both field representative delivery and mail delivery to ECPs. With in-office samples, a potential customer can try the product at the ECP's offices or at home without having to fill a prescription. The sampling program is a strategy for potential customers to experience near vision improvement of the product at no-cost, which can accelerate customer acceptance and desire to use the product.

Self-Pay

If the NDA is approved, we intend to commercialize our product through the self-pay healthcare marketplace, without third-party reimbursement. We believe pursuing a non-reimbursed product strategy will allow for strategic advantages in the United States, including immediate user access without having to negotiate with formularies and insurers, pricing and marketing flexibility, and without being subject to the Inflation Reduction Act of 2022.

Manufacturing

Our LNZ100 product candidate is a ready-to-use, self-administered, once-daily eye drop that is a formulation of aceclidine hydrochloride together with commonly used excipients. LNZ100 is delivered via a single-use Blow-Fill-Seal ("BFS") container and is preservative-free.

We do not currently own or operate facilities for manufacturing, storing, distributing or testing our product candidates and products. We currently use different contract manufacturing organizations ("CMOs") to supply our active pharmaceutical ingredient ("API"), aceclidine hydrochloride, and formulate and fill LNZ100, our investigational drug product ("DP"). All of our CMOs, including analytical and distribution chain partners, have been inspected by the FDA for compliance with current Good Manufacturing Practices ("cGMP") regulatory guidelines. A Drug Master File ("DMF") is on file with the FDA for the API. Commercial supply agreements have been secured with our API suppliers with commercially reasonable terms to meet our planned clinical and commercial activities, and we are continuing to negotiate and enter additional contracts for secondary supply. Similarly, we have secured both clinical and commercial-scale supply. Our manufacturing and testing processes are common to the pharmaceutical and ophthalmic industry, and we have identified and are working with additional API suppliers for aceclidine hydrochloride and identified secondary DP manufacturers with similar equipment for additional commercial supply. We have initiated process transfer activities for both the API suppliers and DP manufacturers.

We are in negotiations to secure our 3PL provider. We expect that the 3PL provider will support cold storage commercial warehousing and distribution activities, the drug product will ship directly from the DP CMO via a qualified shipping vendor at controlled cold storage temperature to the 3PL provider, and the 3PL provider will maintain inventory and comply with the Drug Supply Chain Security Act ("DSCSA") requirements for product serialization and track and trace capabilities.

Competition

The biotechnology, pharmaceutical, and ophthalmology industries are characterized by rapidly advancing technologies, intense competition, and a strong emphasis on intellectual property. We believe that our product candidates, intellectual property portfolio, business strategy, internal capabilities, and experience provide us with competitive advantages. However, we face competition from many different sources, including large and specialty pharmaceutical, biotechnology and ophthalmology companies, academic research institutions and governmental agencies, and public and private research institutions. Any product candidate we develop and commercialize will have to compete with existing therapies as well as therapies currently in development and that may be developed in the future. We believe that the key competitive factors affecting the success of any of our product candidates will include efficacy, safety profile, convenience, cost, level of promotional activity devoted to them and intellectual property protection.

As LNZ100 is being developed for the treatment of presbyopia, we may face competition from a variety of companies developing or marketing other pharmaceutical presbyopia therapies, including AbbVie (formerly Allergan), Bausch & Lomb, Eyenovia, Glaukos, Johnson & Johnson, Orasis, OSRX Pharmaceuticals (an affiliate of Ocular Science), Viatris (through licensing of Ocuphire's presbyopia products), Visus Therapeutics, and Vyluma. A large majority of the new pharmaceutical drops are miotic. Other than Visus which is developing a carbachol-based eye drop, most of the drops in clinical development are based on pilocarpine, similar to Vuity.

Many of our current or potential competitors, either alone or with their collaboration partners, have substantially greater financial resources and may have greater expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology, and ophthalmology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be strong competitors, particularly through collaborative arrangements with large and established companies. These companies also compete with us in recruiting and retaining qualified scientific and management personnel, as well as in acquiring technologies and intellectual property complementary to, or necessary for, our product candidates. Because of the size of the ophthalmology and vision correction markets and the high growth profile of such markets, we anticipate that companies will dedicate substantial resources to developing competing products. We believe that the principal competitive factors in these markets will include:

- improved outcomes for users and other product quality attributes;
- product innovation;
- acceptance by ECPs;
- ease of use and reliability;
- regulatory status and speed to market; and
- marketing and product price.

We expect that any such treatment options that are successfully developed could eventually be available both within and outside the United States. Consolidations and mergers and acquisitions in the pharmaceutical, medical device, and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Our commercial opportunity could be reduced or eliminated if our competitors develop or market products or other novel therapies that are more effective, safer, or less costly than our current or future products, or obtain regulatory approval for their products more rapidly than we may obtain approval for our products. Our success will also be based in part on our ability to identify, develop and manage a portfolio of products that are safer and more effective than competing therapies.

Intellectual Property

We have developed and continue to expand our patent portfolio for the treatment of presbyopia with LNZ100. As of March 21, 2024, we hold at least 43 issued patents. 18 of these patents are in the United States, and 25 of these

patents are in other countries throughout the world. We have at least 25 granted patents in Australia, Brazil, Canada, China, India, Japan, Mexico, and Singapore. These patents are expected to expire between 2034 and 2041. Our patents cover compositions for and methods of treating presbyopia with LNZ100. We also have at least 74 pending applications filed in Argentina, Australia, Bolivia, Brazil, Canada, China, Europe, Hong Kong, India, Japan, Korea, Macao, Mexico, Singapore, Taiwan, the United States, Uruguay, and the Patent Cooperation Treaty system.

Patents related to LNZ100 may be eligible for patent term extensions in certain jurisdictions, including up to five years in both the United States and Europe, if granted, upon approval of commercial use of the corresponding product by a regulatory agency in the jurisdiction where the patent was granted.

No drug product containing aceclidine, an active pharmaceutical agent of LNZ100, has yet been approved in the United States under section 505(b) of the Federal Food, Drug and Cosmetic Act, for any indication. Therefore, we believe LNZ100, if approved, could be eligible for five years of New Chemical Entity (NCE) exclusivity in the United States upon such approval so long as no other drug product containing aceclidine is approved by the FDA before approval of such product candidate. Further, as LNZ100 has not previously been approved in Europe for any indication, LNZ100 may be eligible for eight years of data exclusivity, as well as two years of market exclusivity upon approval in Europe. In Europe, an additional one year of exclusivity may be obtained if LNZ100 is approved for a new indication that provides a significant clinical benefit. In addition to patent protection, we rely on trade secret protection and know-how to expand our proprietary position around our chemistry, technology, and other discoveries and inventions that we consider important to our business. We also seek to protect our intellectual property in part by entering into confidentiality agreements with companies with whom we share proprietary and confidential information in the course of business discussions, and by having confidentiality terms in our agreements with employees, consultants, scientific advisors, clinical investigators, and other contractors. We also require our employees, commercial contractors, and certain consultants and investigators, to enter into invention assignment agreements that grant us ownership of any discoveries or inventions made by them while in our employ.

License and Collaboration Agreement with Ji Xing Pharmaceuticals Hong Kong Limited

In April 2022, we entered into a License and Collaboration Agreement with Ji Xing Pharmaceuticals Hong Kong Limited (Ji Xing). Under this agreement, we granted Ji Xing (i) an exclusive (even as to us), royalty-bearing, nontransferable license, with the right to grant sublicenses (our prior written consent is required for sublicenses for commercialization purposes), under the technology we control including know-how and patents for Ji Xing to develop, use, import and sell pharmaceutical products containing aceclidine and brimonidine for the treatment of presbyopia in humans in mainland China, Hong Kong Special Administrative Region, Macau Special Administrative Region, and Taiwan (collectively, "Greater China"), (ii) a non-exclusive, nontransferable license, with the right to grant sublicenses, under the same technology we control to manufacture the same products for the same use in Greater China, and (iii) a first right of negotiation for Ji Xing to license any other product that we develop or commercialize containing aceclidine or brimonidine for uses outside of the treatment of presbyopia in Greater China. We retain the rights to use the same technology to perform our obligations in the agreement and the non-exclusive right to manufacture and have manufactured such products in Greater China. The agreement provides that we shall refrain from developing or commercializing any competing product, or knowingly enabling a third party to develop or commercialize a product containing aceclidine or brimonidine that would reasonably be expected to result in off-label sales of such products, for the treatment of presbyopia in humans in Greater China. Under the terms of the agreement, we received an upfront, non-refundable payment of $15.0 million, and an investment from three funds managed or advised by RTW Investments, LP for an aggregate purchase price of approximately $10.0 million in exchange for shares of our Series A-1 preferred stock. We are also eligible to receive an additional up to $15.0 million in development milestone payments, $80.0 million in sales milestone payments, tiered, escalating royalties in the range of 5% to 15% on net sales of such products by Ji Xing, its affiliates or sublicensees in Greater China during the royalty term, and tiered, deescalating royalties in the range of 15% to 5% of Ji Xing's sublicensing income prior to the regulatory approval of the first such product in Greater China. Royalties are subject to adjustment if no valid claim of a patent is covering such product, if a generic product exceeds 10% of the market share on a volume basis, or if a third-party license is necessary to manufacture or sell such products. The royalty term in each region is on a product-by-product basis and the longer of (a) expiration of the last valid claim of a patent covering such product in such region, (b) expiration of regulatory exclusivity for such product in such region, and (c) ten years from the date of first commercial sale of such product in such region. Ji Xing may terminate the

agreement in its entirety at any time upon 180 days' prior written notice. Either party may terminate the agreement for the other's uncured and material breach, subject to a disputed breach resolution mechanism. Either party may also terminate the agreement upon the other party's insolvency. We may terminate the agreement upon 60-days' prior written notice if Ji Xing or its affiliates or sublicensees challenge the validity, enforceability, or scope of any licensed patent.

Government Regulation

Our product candidates and operations are subject to extensive regulation by the Food and Drug Administration ("FDA") and other federal and state authorities in the United States, as well as comparable authorities in other countries. For example, our current product candidate, LNZ100, which is ophthalmic pharmaceutical product delivered through a single-use eye dropper device, is subject to regulation as drug-device combination products in the United States.

The FDA and other federal, state, local, and foreign authorities regulate, among other things, the research, development, testing, manufacture, quality control, approval, labeling, packaging, storage, record-keeping, promotion, advertising, distribution, post-approval monitoring and reporting, marketing and export and import of drug and combination products. Generally, before a new drug can be marketed, considerable data demonstrating its quality, safety and efficacy must be obtained, organized into a format specific for each regulatory authority, submitted for review, and approved by the regulatory authority.

U.S. Drug Development

In the United States, the FDA regulates drugs under the Food, Drug, and Cosmetic Act ("FDCA") and its implementing regulations. Drug products and substances are subject to other federal, state and local statutes and regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local, and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process or post-market may subject an applicant to administrative or judicial sanctions. These sanctions could include, among other actions, the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, untitled or warning letters, product recalls or market withdrawals, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement and civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

Our lead product candidate and any future small molecule product candidates must be approved by the FDA through the new drug application ("NDA") process before they may be legally marketed in the United States. The process generally involves the following:

- Completion of extensive preclinical studies in accordance with applicable regulations, including the FDA's good laboratory practice ("GLP") requirements;
- Submission to the FDA of an investigational new drug ("IND") application, which must become effective before clinical trials may begin;
- Approval by an independent institutional review board ("IRB") or ethics committee at each clinical trial site before each trial may be initiated;
- Performance of adequate and well-controlled clinical trials in accordance with applicable IND regulations, good clinical practice ("GCP") requirements and other clinical trial-related regulations to establish the safety and efficacy of an investigational product for each proposed indication;
- Preparation and submission to the FDA of an NDA;
- A determination by the FDA within 60 days of its receipt of an NDA to file the application for review;

- Satisfactory completion of an FDA pre-approval inspection of the manufacturing facility or facilities where the drug product will be produced to assess compliance with current good manufacturing practice ("cGMP"), requirements to assure that the facilities, methods and controls are adequate to preserve the drug identity, strength, quality, and purity;
- Potential FDA audit of the preclinical study and/or clinical trial sites that generated the data in support of the NDA; and
- FDA review and approval of the NDA, including consideration of the views of any FDA advisory committee, prior to any commercial marketing or sale of the drug in the United States; and
- Compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy ("REMS"), and the potential requirement to conduct post-approval studies.

Preclinical and Clinical Studies

The preclinical and clinical testing and approval process requires substantial time, effort, and financial resources, and we cannot be certain that any approvals for any future product candidates will be granted on a timely basis, or at all.

Preclinical tests generally involve laboratory evaluations of drug chemistry, formulation, and stability, as well as studies to evaluate toxicity in animals, including pharmacology, pharmacokinetics, toxicokinetic, and metabolism studies that support subsequent clinical testing in humans. The results of the preclinical studies, together with manufacturing information, analytical data, any available clinical data or literature and a proposed clinical protocol, are submitted to the FDA as part of the Investigational New Drug (IND) application. An IND is a request for authorization from the FDA to administer an investigational product to humans and must become effective before clinical trials may begin.

Long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, may continue after the IND is submitted.

The central focus of an IND submission is the general investigation plan and the protocol(s) for human studies. An IND must become effective before clinical trials may begin. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the trial on clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

For each successive clinical trial conducted with the investigational drug, a separate, new protocol submission to an existing IND must be made, along with any subsequent changes to the investigational plan. Sponsors are also subject to ongoing reporting requirements, including submission of IND safety reports for any serious adverse experiences associated with use of the investigational drug or findings from preclinical studies suggesting a significant risk for human subjects, as well as IND annual reports on the progress of the investigations conducted under the IND.

Clinical studies involve the administration of the investigational product to healthy volunteers or patients under the supervision of qualified investigators, generally physicians not employed by or under the trial sponsor's control, in accordance with Good Clinical Practice (GCP) requirements, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection and exclusion criteria, and the parameters to be used to monitor subject safety and assess efficacy. Each protocol, and any subsequent amendments to the protocol, must be submitted to the FDA as part of the IND.

Furthermore, each clinical trial must be reviewed and approved by an Institutional Review Board (IRB) for each institution at which the clinical trial will be conducted to ensure that the risks to individuals participating in the

clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the informed consent form that must be provided to each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed. There also are requirements governing the reporting of ongoing clinical trials and completed clinical trial results to public registries, including the website maintained by the U.S. National Institutes of Health, ClinicalTrials.gov.

A sponsor who wishes to conduct a clinical trial outside of the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. If a foreign clinical trial is not conducted under an IND, the sponsor may submit data from the clinical trial to the FDA in support of an NDA. The FDA will generally accept a well-designed and well-conducted foreign clinical trial not conducted under an IND if the trial was conducted in accordance with GCP requirements and the FDA is able to validate the data through an onsite inspection if deemed necessary.

Clinical trials in the United States generally are conducted in three phases, known as Phase 1, Phase 2, and Phase 3. Although the phases are usually conducted sequentially, they may overlap or be combined.

- Phase 1 clinical trials generally involve a small number of healthy volunteers or disease-affected patients who are initially exposed to a single dose and then multiple doses of the product candidate. The primary purpose of these clinical trials is to assess the metabolism, pharmacologic action, tolerability and safety of the drug.
- Phase 2 clinical trials typically involve studies in a limited population of disease-affected patients to determine possible adverse effects and safety risks, to preliminarily evaluate the efficacy of the product for specific targeted diseases and to determine dosage tolerance, optimal dosage and dosing schedule.
- Phase 3 clinical trials generally involve a large number of patients at multiple sites and are designed to evaluate the effectiveness of the product for its intended use, its safety in use and to establish the overall benefit/risk relationship of the product and provide an adequate basis for product approval. These trials may include comparisons with placebo and/or other comparator treatments.

Post-approval clinical trials, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. These trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication. In certain instances, the FDA may mandate the performance of Phase 4 clinical trials as a condition of approval of an NDA.

During all phases of clinical development, regulatory agencies require extensive monitoring and auditing of all clinical activities, clinical data, and clinical study investigators. Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected suspected adverse events, findings from other studies suggesting a significant risk to humans exposed to the drug, findings from animal or in vitro testing that suggest a significant risk for human subjects, and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor's initial receipt of the information.

Phase 1, Phase 2, and Phase 3 clinical trials may not be successfully completed within any specified period, if at all. The FDA or the sponsor may suspend or terminate a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients. Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether a trial may move forward at designated check-points based on access to certain data from the trial. Concurrent with clinical trials, companies usually complete additional animal safety studies and also must develop additional information about the chemistry and physical characteristics of the drug as well as finalize a process for

manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of our product candidates. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that our product candidates do not undergo unacceptable deterioration over their labeled shelf life.

NDA Review

Following the completion of clinical trials, data are analyzed to assess whether the investigational product is safe and effective for the proposed indicated use or uses. The results of preclinical studies and clinical trials are then submitted to the FDA as part of an NDA, along with proposed labeling, chemistry, and manufacturing information in a request for approval to market the drug for one or more specified indications. The application must include both negative and ambiguous results of preclinical studies and clinical trials, as well as positive findings. Data may come from company-sponsored clinical trials intended to test the safety and efficacy of a product's use or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the investigational product to the satisfaction of the FDA. FDA approval of an NDA must be obtained before a drug may be marketed in the United States.

Under the Prescription Drug User Fee Act, as amended ("PDUFA"), each NDA must be accompanied by an application user fee. FDA adjusts the PDUFA user fees on an annual basis. PDUFA also imposes an annual program fee for each marketed human drug. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a qualifying small business.

The FDA reviews all submitted NDAs before it accepts them for filing to determine if they are sufficiently complete to permit a substantive review, and the FDA may request additional information rather than accepting the NDA for filing. In this event, the application must be resubmitted with the additional information and is subject to payment of additional user fees. The FDA must make a decision on accepting an NDA for filing within 60 days of receipt. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the NDA. Under PDUFA, the FDA has agreed to certain performance goals in the review of NDAs through a two-tiered classification system, standard review and priority review. According to PDUFA performance goals, the FDA endeavors to review applications subject to standard review within ten months, whereas the FDA's goal is to review priority review applications within six months. The FDA does not always meet its PDUFA goal dates for standard and priority NDAs, and the review process is often extended by FDA requests for additional information or clarification.

The FDA may refer applications for novel drug products or products which present difficult questions of safety or efficacy to an advisory committee for review, evaluation and recommendation as to whether the application should be approved and under what conditions.

Before approving an NDA, the FDA typically will conduct a pre-approval inspection of the manufacturing facilities for the new product to determine whether they comply with cGMP requirements. The FDA will not approve the product unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. The FDA also may audit data from clinical trials to ensure compliance with GCP requirements. The FDA also closely analyzes the clinical trial data, which could result in extensive discussions between the FDA and the applicant during the review process. Notwithstanding the submission of any requested additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

After the FDA evaluates an NDA and conducts inspections of manufacturing facilities, it will issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application will not be approved in its present form. A Complete Response Letter usually describes all of the specific deficiencies in the NDA identified by the FDA. The Complete Response Letter may require additional clinical data, including the potential requirement to conduct additional pivotal Phase 3 clinical trial(s) and/or other significant and time-consuming requirements related to clinical trials, or to conduct

additional preclinical studies or manufacturing changes. If a Complete Response Letter is issued, the applicant may either resubmit the NDA, addressing all of the deficiencies identified in the letter, or withdraw the application. Even if such data and information are submitted, the FDA may decide that the NDA does not satisfy the criteria for approval. Data obtained from clinical trials are not always conclusive and the FDA may interpret data differently than we interpret the same data.

Post-Approval Requirements

Following approval of a new product, the product is subject to continuing regulation by the FDA, including, among other things, requirements relating to facility registration and drug listing monitoring and record-keeping adverse event and other periodic reporting, product sampling and distribution, and product promotion and advertising. The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such uses. Prescription drug promotional materials must be submitted to the FDA in conjunction with their first use or first publication.

After approval, if there are any changes to the approved product, including changes in indications, labeling or manufacturing processes or facilities, the applicant may be required to submit and obtain FDA approval of a new NDA or NDA supplement, which may require the development of additional data or preclinical studies and clinical trials. There also are continuing user fee requirements, under which FDA assesses an annual program fee for each product identified in an approved NDA. In addition, quality control, drug manufacture, packaging, and labeling products must continue to conform to cGMP requirements after approval. We rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of our products in accordance with cGMP regulations. Manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and certain state agencies, and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with cGMP requirements and other laws. Accordingly, manufacturers must continue to expend time, money and effort in the area of production and quality control to maintain cGMP compliance. The discovery of violative conditions, including failure to conform to cGMP regulations, could result in enforcement actions, and the discovery of problems with a product after approval may result in restrictions on a product, its manufacturer or the NDA holder, including recalls.

The FDA may also place other conditions on approvals including the requirement for a REMS, to assure the safe use of the product. If the FDA concludes that a REMS is needed, the NDA sponsor must submit a proposed REMS. The FDA will not approve the product without an approved REMS, if required. A REMS could include medication guides, physician communication plans or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. Product approvals may be withdrawn for non-compliance with regulatory standards or if problems occur following initial marketing.

The FDA may withdraw approval of a product if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Corrective action could delay drug distribution and require significant time and financial expenditures. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical studies to assess new safety risks or imposition of distribution restrictions or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, suspension of the approval, complete withdrawal of the product from the market, or product recalls;

- fines, warning letters, or holds on clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications;
- suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- mandated modifications of promotional materials and labeling and the issuance of corrective information;
- issuance of safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings or other safety information about the product; or injunctions or the imposition of civil or criminal penalties.

We also must comply with the FDA's advertising and promotion requirements, such as those related to direct-to-consumer advertising, the prohibition on promoting products for uses or in patient populations that are not described in the product's approved labeling, known as "off-label use," industry-sponsored scientific and educational activities, and promotional activities involving the internet and social media.

The FDA may also require post-approval studies and clinical trials if the FDA finds that scientific data, including information regarding related drugs, deem it appropriate. The purpose of such studies would be to assess a known serious risk or signals of serious risk related to the drug or to identify an unexpected serious risk when available data indicate the potential for a serious risk. The FDA may also require a labeling change if it becomes aware of new safety information that it believes should be included in the labeling of a drug.

Failure to comply with the applicable regulatory requirements at any time during the product development process, approval process or after approval may subject an applicant or manufacturer to, among other things, adverse publicity, warning letters, corrective advertising and potential civil and criminal penalties. FDA sanctions could include refusal to approve pending applications, withdrawal of an approval, clinical hold, warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, mandated corrective advertising or communications with doctors, debarment, restitution, disgorgement of profits, or civil or criminal penalties.

U.S. Regulation of Drug/Device Combination Products

We expect LNZ100 to be subject to regulation in the United States as a combination product comprised of a drug product candidate and a device delivery system. A combination product is the combination of two or more regulated components, such as a drug/device, that are combined or mixed and produced as a single entity, packaged together in a single package or a drug or device packaged separately that according to its investigational plan or proposed labeling is intended for use only with an approved individually specified drug or device where both are required to achieve the intended use, indication or effect. If marketed individually, each component would be subject to different regulatory pathways and would require approval of independent marketing applications by the FDA – one for the device component and one for the drug component of the combination.

A combination product, however, is assigned to a center within FDA that will have primary jurisdiction over its regulation based on a determination of the combination product's primary mode of action, which is the single mode of action that provides the most important therapeutic action. To determine which FDA center or centers will review a combination product candidate submission, companies may submit a request for assignment to the FDA. Those requests may be handled formally or informally. In some cases, jurisdiction may be determined informally based on FDA experience with similar products. However, informal jurisdictional determinations are not binding on the FDA. Companies also may submit a formal Request for Designation to the FDA Office of Combination Products. The Office of Combination Products will review the request and make its jurisdictional determination within 60 days of receiving a Request for Designation.

For LNZ100, which is an ophthalmic pharmaceutical product prefilled and packaged in a single-use eye dropper device, the mechanism of action and the pharmacological effect are attributable to the drug component of the drug-device combination product. Consistent with our communications with FDA to date and the regulatory pathway for

other ophthalmic pharmaceutical products, we plan to seek FDA approval of LNZ100 through the NDA pathway, and we do not expect that the FDA will require a separate marketing authorization for the device component. However, each component of LNZ100 will need to meet the applicable quality and manufacturing standards set by FDA, meaning the drug product must be manufactured in accordance with GMPs for drugs, and the device component must be manufactured in a manner consistent with the device GMPs set forth in FDA's Quality System Regulation, or QSR.

U.S. Patent-Term Restoration and Marketing Exclusivity

Depending upon the timing, duration and specifics of FDA approval of any of our future product candidates, some of our U.S. patents may be eligible for limited patent term extension under the Hatch-Waxman Act. The Hatch-Waxman Act permits restoration of the patent term of up to five years as compensation for patent term lost during product development and the FDA regulatory review process. Patent-term restoration, however, cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. Application for patent extension must be filed with the USPTO within 60 days of FDA approval of the drug product even if the product cannot be commercially marketed at that time.

The patent term restoration period is generally one-half the time between the effective date of an IND or the issue date of the patent, whichever is later, and the submission date of an NDA plus the time between the submission date of an NDA or the issue date of the patent, whichever is later, and the approval of the NDA application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved drug is eligible for the extension and the application for the extension must be submitted prior to the expiration of the patent. The USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. In the future, we may apply for restoration of patent term for our currently owned or licensed patents to add patent life beyond their current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant NDA.

Market exclusivity provisions under the FDCA also can delay the submission or the approval of certain applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to gain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not approve an abbreviated new drug application ("ANDA"), or a 505(b)(2) NDA submitted by another company for another version of such drug where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement. The FDCA also provides three years of marketing exclusivity for an NDA, 505(b)(2) NDA or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example, new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the conditions of use associated with the new clinical investigations and does not prohibit the FDA from approving ANDAs for drugs containing the original active agent. Such three-year and five-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Other U.S. Regulatory Matters

Although we do not expect any of our products, if approved, would be covered by any government healthcare programs or other third-party payors, we may still be subject to state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payers, including self-pay patients; state and foreign laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government or otherwise restrict payments that may be made to healthcare providers; state and foreign laws that require drug manufacturers to report information related to payments and other transfers of value made to physicians and other healthcare providers or marketing expenditures;

state and local laws requiring the registration of pharmaceutical sales representatives; and state and foreign laws governing the collection, export, privacy, use, protection and security of biological materials and health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

For more information, see the section titled *"Risk Factors—Risks Related to Our Regulatory Approval and Other Legal Compliance Matters— we may be subject to federal and state healthcare fraud and abuse laws, false claims laws, transparency laws, and health information privacy and security laws, which could expose us to, among other things, criminal sanctions, civil penalties, contractual damages, reputational harm, administrative burdens and diminished profits and future earnings."*

Because of the breadth of these laws and the narrowness of available statutory and regulatory exemptions or safe harbors, it is possible that some of our activities could be subject to challenge under one or more of such laws. The growth of our business and sales organization and our expansion outside of the United States may increase the potential of violating these laws or our internal policies and procedures. The risk of us being found in violation of these or other laws and regulations is further increased by the fact that many have not been fully interpreted by the regulatory authorities or the courts, and their provisions are open to various interpretations. Any action brought against us for violations of these laws or regulations, even successfully defended, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

If our operations are found to be in violation of any of the federal, state and foreign laws described above or any other current or future fraud and abuse or other healthcare laws and regulations that apply to us, we may be subject to penalties, including significant civil, criminal and administrative penalties, including damages, fines, disgorgement, individual imprisonment, integrity oversight and reporting obligations, contractual damages, reputational harm, diminished profits and future earnings, injunctions, requests for recall, seizure of products, total or partial suspension of production, denial or withdrawal of product approvals or refusal to allow a firm to enter into supply contracts, including government contracts, and we could be required to curtail or cease our operations. Any of the foregoing consequences could seriously harm our business and our financial results.

U.S. Healthcare Reform

Although we do not expect any of our products, if approved, would be covered by any government healthcare programs or other third-party payors, legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the regulatory approvals of our product candidates, if any, may be. In addition, increased scrutiny by Congress of the FDA's approval process may significantly delay or prevent regulatory approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements. For more information, see the section titled *"Risk Factors—Risks Related to Our Regulatory Approval and Other Legal Compliance Matters—we may face difficulties from changes to current regulations and future legislation. Healthcare legislative measures aimed at reducing healthcare costs may have a material adverse effect on our business and results of operations."*

In addition, different pricing and reimbursement schemes exist in other countries. In the European Community, governments influence the price of pharmaceutical products through their pricing and reimbursement rules and control of national healthcare systems that fund a large part of the cost of those products to consumers. Some jurisdictions operate positive and negative list systems under which products may be marketed only once a reimbursement price has been agreed upon. Some of these countries may require, as condition of obtaining reimbursement or pricing approval, the completion of clinical trials that compare the cost-effectiveness of a particular product candidate to currently available therapies. Other member states allow companies to fix their own prices for medicines, but monitor and control company profits. The downward pressure on healthcare costs in general, particularly prescription drugs, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products. In addition, in some countries, cross-border imports from low-priced markets exert a commercial pressure on pricing within a country.

Coverage and Reimbursement

In most foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing and reimbursement vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the European Union do not follow price structures of the United States and generally prices tend to be significantly lower. For more information, see the section titled *"Risk Factors—Risks Related to Our Company—we may face difficulties from changes to current regulations and future legislation. Healthcare legislative measures aimed at reducing healthcare costs may have a material adverse effect on our business and results of operations."*

Foreign Regulation

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our product candidates to the extent we choose to develop or sell any product candidates outside of the United States. The approval process varies from country to country and the time may be longer or shorter than that required to obtain FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country.

Employees and Human Capital Resources

As of March 21, 2024, we had 28 employees, 16 of whom were engaged in research and development activities. We also engage contractors and consultants. None of our employees are represented by a labor union or covered under a collective bargaining agreement. We have not experienced any work stoppages due to employee disputes, and we consider our relationship with our employees to be good.

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

Facilities

Our corporate headquarters is located in Del Mar, California, and consists of 3,577 square feet of office space pursuant to a lease that expires in March 2026.

We lease all of our facilities and do not own any real property. We believe that our existing facilities are adequate and suitable for our current needs and that, should it be needed, suitable additional or alternative space will be available as and when needed.

Legal Proceedings

Merger Proceedings

In connection with the Merger, one complaint was filed in the United States District Court for the Northern District of California captioned Glen Chew v. Graphite Bio, Inc. et al., Case No. 3:24-cv-00613 (filed February 1, 2024) (the "Chew Complaint") and one complaint was filed in the United States District Court for the District of Delaware captioned Kevin Turner v. Graphite Bio, Inc. et al., Case No. 1:24-cv-00241-UNA (filed February 22, 2024) (the "Turner Complaint" and collectively, the "Complaints"). The Complaints generally allege that the definitive proxy statement/prospectus (the "Proxy Statement/Prospectus") included in Graphite's Registration Statement on Form S-4 (File No. 333-275919), filed with the Securities and Exchange Commission (the "SEC"), misrepresents and/or omits certain purportedly material information relating to LENZ's financial projections, the

analyses performed by the financial advisor to Graphite's Board of Directors in connection with the Merger, potential conflicts of interest of the financial advisor to Graphite's Board of Directors, potential conflicts of interest of Graphite's officers, and Graphite's liquidation analysis. The Complaints assert violations of Section 14(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Rule 14a-9 promulgated thereunder against all defendants (Graphite, its Board of Directors and certain officers) and violations of Section 20(a) of the Exchange Act against Graphite's directors and officers. The Complaints seek orders rescinding the Merger or awarding rescissory damages, as well as costs, including attorneys' and experts' fees. On March 22, 2024, the Chew Complaint was voluntarily dismissed.

Graphite also received twelve demand letters by purported Graphite stockholders from December 14, 2023 to March 20, 2024 seeking additional disclosures in the Proxy Statement/Prospectus (the "Demands").

We cannot predict the outcome of any litigation or the Demands. The Company and the individual defendants intend to vigorously defend against the Turner Complaint, the Demands, and any subsequently filed similar actions. It is possible additional lawsuits may be filed or additional demand letters may be received arising out of the Merger.

We believe that the disclosures set forth in the Proxy Statement/Prospectus comply fully with all applicable laws, and deny the allegations in the Complaints and Demands described above. Nevertheless, in order to moot plaintiffs' disclosure claims, avoid nuisance and possible expense and business delays, and provide additional information to its stockholders, Graphite voluntarily supplemented certain disclosures in the Proxy Statement/Prospectus on March 5, 2024 (the "Supplemental Disclosures"). Nothing in the Supplemental Disclosures shall be deemed an admission of the legal merit of the Complaints or the Demands described above, or of the necessity or materiality under applicable laws of any of the disclosures set forth herein. To the contrary, we specifically deny all allegations in the Complaints and the Demands that any additional disclosure was or is required or is material.

Other Proceedings

From time to time, we may be subject to legal proceedings and claims arising in the ordinary course of our business. We are not currently a party to or aware of any proceedings that we believe will have, individually or in the aggregate, a material adverse effect on our business, financial condition or results of operations.

MANAGEMENT

Executive Officers and Directors

The following table sets forth the names, ages, and positions of our executive officers and directors as of March 29, 2024:

Name	Age	Position
Executive Officers		
Evert Schimmelpennink	52	Chief Executive Officer, President, Secretary, and Director
Shawn Olsson	41	Chief Commercial Officer
Marc Odrich	65	Chief Medical Officer
Daniel Chevallard	44	Chief Financial Officer
Non-Employee Directors		
Frederic Guerard[(1)(2)]	51	Director
James McCollum	69	Director
Zach Scheiner[(1)(3)]	47	Director
Shelley Thunen[(1)(2)]	71	Director
Jeff George[(3)]	50	Director
Kimberlee C. Drapkin[(2)(3)]	56	Director

(1) Member of the audit committee.
(2) Member of the compensation committee.
(3) Member of the nominating and corporate governance committee.

Executive Officers

Evert Schimmelpennink has served as our President and Chief Executive Officer and a member of our board of directors since March 2024. Mr. Schimmelpennink served as LENZ OpCo's President and Chief Executive Officer and a member of its board of directors from March 2021 through the closing of the Merger. Previously, from August 2017 to October 2020, Mr. Schimmelpennink served as President and Chief Executive Officer and a member of the board of directors of publicly listed Pfenex, Inc., a biopharmaceutical company, until its acquisition by Ligand Pharmaceuticals Inc. (Nasdaq: LGND) in late 2020. From November 2019 until its sale, Mr. Schimmelpennink also served as the acting Principal Financial Officer and Principal Accounting Officer of Pfenex Inc. From October 2015 to August 2017, Mr. Schimmelpennink served as Chief Executive Officer of Alvotech, a biopharmaceutical company. Prior to that, Mr. Schimmelpennink held senior positions at Pfizer Inc. (NYSE: PFE) and Hospira, Inc. within their global specialty injectables businesses, as well as Synthon BV. Mr. Schimmelpennink currently serves on the board of directors of iBio, Inc. (NYSE: IBIO) and Pipeline Therapeutics. Mr. Schimmelpennink holds a M.Sc. in Bioprocess Engineering from the University of Wageningen in the Netherlands and a business degree from the Arnhem Business School.

We believe Mr. Schimmelpennink is qualified to serve on our board of directors because of his knowledge of our business and his extensive leadership and operational experience within the pharmaceutical and biotech industries.

Shawn Olsson has served as our Chief Commercial Officer since March 2024. Mr. Olsson served as LENZ OpCo's Chief Commercial Officer from April 2021 through the closing of the Merger. Previously, from March 2018 to April 2021, Mr. Olsson served as Vice President of North American Marketing and Global Portfolio and Vice President of North American Marketing at Xellia Pharmaceuticals, a pharmaceuticals and life sciences company. From September 2015 to March 2018, Mr. Olsson served as Director, Global Sterile Injectables on Market Strategy Lead and Commercial Lead, Opioids and Syringe Technology Portfolio at Pfizer (NYSE: PFE), a multinational pharmaceutical and biotechnology company. Mr. Olsson holds a B.S. in Mechanical Engineering from Purdue University, a M.S. in Mechanical Engineering from University of Michigan and an M.B.A. in Strategic Management and Finance from University of Chicago.

Marc Odrich, M.D. has served as our Chief Medical Officer since March 2024. Dr. Odrich served as LENZ OpCo's Chief Medical Officer from July 2021 through the closing of the Merger and provided consulting services to LENZ OpCo from March 2018 to July 2021. Since June 2017, Dr. Odrich has served as an Associate Professor of Ophthalmology at the University of Virginia, where he specializes in Refractive Surgery and Ocular Surface Disease. Since March 2016, Dr. Odrich has served as a consultant to TearSolutions, Inc., an early stage clinical ophthalmology company specializing in Ocular Surface Disease. Dr. Odrich is also a consultant to Johnson & Johnson Vision Care and is a member of the board of directors of Epion Therapeutics. Dr. Odrich previously served as the Medical Director for Visx Incorporated, a developer of technology and systems for laser vision correction, where he led the clinical team in bringing the excimer laser into commercialization worldwide. Dr. Odrich has been involved with group, private and academic ophthalmic practices since 1990. Dr. Odrich holds a B.A. in Ancient History from Columbia University in the City of New York and an M.D. from Columbia University's College of Physicians and Surgeons. Dr. Odrich completed an internship in internal medicine at Yale's Danbury Hospital before pursuing his residency at Columbia University's Harkness Eye Institute. Dr. Odrich then completed a two-year fellowship focused on cornea and external disease at Harvard's Massachusetts Eye and Ear Infirmary.

Daniel Chevallard has served as our Chief Financial Officer since March 2024. From July 2019 to March 2024, Mr. Chevallard served as Chief Financial Officer, Treasurer and Secretary of Viracta Therapeutics, Inc. (NASDAQ: VIRX), a biotechnology company, and served as its Chief Operating Officer from March 2021 to March 2024. Previously, Mr. Chevallard served as the Chief Financial Officer and principal financial officer at Regulus Therapeutics (NASDAQ: RGLS) from May 2017 to July 2019. Mr. Chevallard joined Regulus Therapeutics in December 2012 as Vice President, Accounting and Financial Reporting and served as Vice President, Finance from May 2013 to April 2017. Prior to joining Regulus Therapeutics, Mr. Chevallard held various senior roles in corporate finance, accounting and financial reporting including Controller and Senior Director, Finance of Prometheus Laboratories Inc. (acquired by Nestlé Health Science in July 2011). Prior to joining Prometheus, Mr. Chevallard spent approximately five years in public accounting at Ernst & Young, LLP in their assurance services practice. Mr. Chevallard received his Bachelor of Accountancy from the University of San Diego and is a Certified Public Accountant (inactive) in the state of California.

Non-Employee Directors

Frederic Guerard, Pharm.D. has served as a member of our board of directors since March 2024 and served on the LENZ OpCo board of directors from September 2021 through the closing of the Merger. Since October 2023, Dr. Guerard has served as Chief Executive Officer of Opthea Limited (Nasdaq: OPT; ASX: OPT), a biopharmaceutical company. Dr. Guerard served as the President and Chief Executive Officer of Graybug Vision, Inc. from February 2019 until March 2023. From 1999 to February 2019, Dr. Guerard held key leadership roles at Novartis AG, a multinational pharmaceutical company, including Worldwide Business Franchise Head of Ophthalmology from April 2016 to February 2019, Global Franchise Head of Pharmaceuticals at Alcon Laboratories, a Novartis company, from May 2015 to April 2016, Managing Director of the United Kingdom and Ireland from July 2012 to April 2015, and Country President and Managing Director of Australia and New Zealand from April 2009 to July 2012, among others. Dr. Guerard currently serves on the board of directors of CalciMedica, Inc. (Nasdaq: CALC). Dr. Guerard holds a Pharm.D. and a Master of Biological and Medical Sciences from the University of Rouen, France and a Master of Marketing from HEC Paris.

We believe Dr. Guerard is qualified to serve on our board of directors because of his extensive drug development experience and his experience serving in various leadership positions in biotechnology companies.

James McCollum has served as a member of our board of directors since March 2024. Mr. McCollum co-founded LENZ OpCo and served on LENZ OpCo's board of directors from July 2013 through the closing of the Merger. From September 2016 to March 2021, Mr. McCollum served as LENZ's President and Chief Executive Officer. From September 2014 to September 2016, Mr. McCollum served as President and Chief Executive Officer of Eye Therapies, LLC, an ocular pharmaceutical company co-founded by Mr. McCollum. Previously, Mr. McCollum served as the President and Chief Executive Officer of Restoration Robotics, a medical robotics company, President and Chief Executive Officer of Vision Membrane Technologies, an intraocular lens medical device company, and President and Chief Executive Officer of Argus Biomedical, an artificial cornea medical device company. Earlier in his career, Mr. McCollum held the position of Senior Vice President of Worldwide

Marketing and Sales at VISX, Incorporated, a developer of technology and systems for laser vision correction. Mr. McCollum holds a B.A. in Business from North Carolina State University.

We believe Mr. McCollum is qualified to serve on our board of directors because of his deep knowledge of our business and strategy, his extensive executive leadership and operational experience.

Zach Scheiner, Ph.D. has served as a member of our board of directors since March 2024. Dr. Scheiner served as a member of LENZ OpCo's board of directors from October 2020 through the closing of the Merger. Dr. Scheiner joined RA Capital Management, L.P., an investment manager, in April 2015 as an associate, became an analyst in April 2017, and has been a principal since December 2017. Prior to joining RA Capital, Dr. Scheiner was a Science Officer at the California Institute for Regenerative Medicine (CIRM), where he worked from September 2008 to March 2015. Dr. Scheiner currently serves on the board of directors of Nkarta Therapeutics, Inc. (Nasdaq: NKTX) and several private biotechnology companies. Dr. Scheiner holds a B.S. in Molecular Biophysics and Biochemistry from Yale University and a Ph.D. in Neurobiology and Behavior from the University of Washington.

We believe Dr. Scheiner is qualified to serve on our board of directors because of his experience in the life sciences industry and his investing experience.

Shelley Thunen has served as a member of our board of directors since March 2024. Ms. Thunen served as a member of LENZ OpCo's board of directors from November 2023 through the closing of the Merger. Since February 2017, Ms. Thunen has served as Chief Financial Officer of RxSight, Inc. (Nasdaq: RXST), an ophthalmic medical technology company, and served as RxSight's Chief Administrative Officer from January 2016 to February 2017. From January 2013 to October 2015, Ms. Thunen served as the Chief Financial Officer of Endologix, Inc. (Nasdaq: ELGX), a medical device company. From August 2010 to December 2012, Ms. Thunen served as Associate General Manager of Alcon LenSx, Inc., a medical device company. Prior to Alcon's (NYSE: ALC) acquisition of LenSx, Inc. in August 2010, Ms. Thunen served as a board member and chair of the audit committee from April 2008 to August 2010, as well as Chief Financial Officer and Vice President, Operations from November 2009 to August 2010. Ms. Thunen joined IntraLase Corp. (Nasdaq: ILSE), a laser technology company, in May 2001 and was its Chief Financial Officer and later Executive Vice President & Chief Financial Officer until its acquisition by Advanced Medical Optics, Inc. (NYSE: EYE) in April 2007. Ms. Thunen serves on the board of directors and as audit committee chair of AEON Biopharma, Inc. (NYSE: AEON). Ms. Thunen holds a B.A. in economics and an M.B.A. from the University of California, Irvine.

We believe Ms. Thunen is qualified to serve on our board of directors because of her extensive experience in the biotechnology industry and her leadership experience as a senior financial executive.

Jeff George has served as a member of our board of directors and as Chair since March 2024. Since January 2017, Mr. George has served as the Managing Partner of Maytal Capital, a healthcare-focused private equity investment and advisory firm he founded. Between 2008 and 2016, Mr. George served on the Executive Committee of Novartis Group AG, a pharmaceutical company, first as Division Head and CEO of Sandoz, Novartis' generic pharmaceuticals and biosimilars subsidiary, and then as Division Head and CEO of Alcon, Novartis' then eye care subsidiary. Mr. George previously headed Emerging Markets for the Middle East, Africa, Southeast Asia and CIS at Novartis Pharmaceuticals and served as Vice President and Head of Western and Eastern Europe for Novartis Vaccines. Prior to this, Mr. George held leadership roles at Gap Inc. and McKinsey & Co. Mr. George serves on the boards of directors of Amneal Pharmaceuticals, Inc. (Nasdaq: AMRX), a generics and specialty pharmaceuticals company, 908 Devices (Nasdaq: MASS), a pioneer in life science diagnostics, Dorian Therapeutics, a cellular senescence biotech spun out of Stanford University, and MAPS PBC, a late-stage CNS-focused private biopharma company where he serves as chairman of the board. Mr. George also currently serves on several non-profit boards and previously served as the Chairman of Education Opens Doors. Mr. George has also served as an Operating Partner at Revival Healthcare Capital, a medical device-focused private equity firm. Mr. George holds an M.B.A. from Harvard Business School, an M.A. from Johns Hopkins University's School of Advanced International Studies, and a B.A. from Carleton College.

We believe Mr. George is qualified to serve on our board of directors because of his extensive industry background and experience in the life sciences industry.

Kimberlee C. Drapkin has served a member of our board of directors since July 2023. Ms. Drapkin served as our president and chief executive officer from August 2023 through the closing of the Merger. Ms. Drapkin has over 25 years of experience working with private and publicly traded biotechnology and pharmaceutical companies, including building and leading finance functions, raising capital, and leading strategic financial planning. Most recently, Ms. Drapkin was the Chief Financial Officer at Jounce Therapeutics, Inc., a position she held from August 2015 until the company's acquisition by Concentra Biosciences, LLC in May 2023, playing a key role in building Jounce's financial infrastructure. Prior to joining Jounce, Ms. Drapkin owned a financial consulting firm where she served as the interim chief financial officer for numerous early-stage biotechnology companies. Previously, she was the Chief Financial Officer at EPIX Pharmaceuticals, Inc. and also spent ten years in roles of increasing responsibility within the finance organization at Millennium Pharmaceuticals, Inc. Her career began in the technology and life sciences practice at PriceWaterhouseCoopers LLP. Ms. Drapkin served as a member of the board of directors of Proteostasis Therapeutics, Inc. until the completion of the merger of Proteostasis and Yumanity Therapeutics, Inc., at which point she became a member of the Yumanity board of directors. Ms. Drapkin then served on the board of directors of Yumanity through the completion of its reverse merger with Kineta, Inc. She currently serves on the board of directors of Acumen Pharmaceuticals, Inc. (Nasdaq: ABOS), Imugene Limited (ASX: IMU) and Kineta, Inc. (Nasdaq: KA), where she is a member of audit committee at all three companies. Ms. Drapkin holds a B.S. in accounting from Babson College.

We believe Ms. Drapkin is qualified to serve on our board of directors because of her role as our chief executive officer prior to the Merger.

Family Relationships

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

Composition of the Board of Directors

Our business and affairs are organized under the direction of the board of directors. Our board of directors currently consists of seven (7) members. Mr. George serves as Chair of our board of directors. The primary responsibilities of the board of directors are to provide oversight, strategic guidance, counseling and direction to our management. The board of directors will meet on a regular basis and additionally as required.

In accordance with the terms of our Certificate of Incorporation and our Bylaws, our board of directors is divided into three staggered classes of directors, Class I, Class II and Class III, with members of each class serving staggered three-year terms. Our board of directors is divided into the following classes:

- Class I, which consists of Frederic Guerard and James McCollum, whose terms expire at our annual meeting of stockholders in 2025;
- Class II, which consists of Jeff George, Shelley Thunen, and Evert Schimmelpennink, whose terms expire at our annual meeting of stockholders in 2026;
- Class III, which consists of Kimberlee C. Drapkin and Zach Scheiner, whose terms expire at our annual meeting of stockholders in 2024 (or 2025 if no annual meeting of stockholders is held in 2024).

At each annual meeting of stockholders to be held after the initial classification, 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 their election and until their successors are duly elected and qualified. This classification of the board of directors may have the effect of delaying or preventing changes in our control or management.

Director Independence

Our board of directors has determined that each of our directors other than Mr. Schimmelpennink qualify as independent directors, as defined under the rules of the Nasdaq listing standards, and our board of directors consists of a majority of "independent directors," as defined under the rules of the SEC and Nasdaq relating to the membership, qualifications, and operations of the audit committee, as discussed below.

Role of Our Board of Directors in Risk Oversight

One of the key functions of our board of directors is informed oversight of the risk management process. Our board of directors does not have a standing risk management committee, but rather administers this oversight function directly through our board of directors as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. In particular our board of directors is responsible for monitoring and assessing strategic risk exposure and our audit committee has the responsibility to consider and discuss major financial risk exposures and the steps our management takes to monitor and control such exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The audit committee also monitors compliance with legal and regulatory requirements. Our compensation committee is responsible for overseeing the management of risks relating to executive compensation plans and arrangements. The compensation committee also assesses and monitors whether compensation plans, policies and programs comply with applicable legal and regulatory requirements.

Committees of the Board of Directors

Our board of directors has three standing committees: an audit committee, a compensation committee, and a nominating and corporate governance committee.

Audit Committee

The members of our audit committee are Shelley Thunen, Frederic Guerard and Zach Scheiner, and Ms. Thunen serves as the chairperson of the audit committee. Under the Nasdaq listing rules and applicable SEC rules, we are required to have at least three members of the audit committee. The rules of Nasdaq and Rule 10A-3 of the Exchange Act require that the audit committee of a listed company be composed solely of independent directors for audit committee purposes, and each member qualifies as an independent director for audit committee purposes under applicable rules. Each of Shelley Thunen, Frederic Guerard and Zach Scheiner is financially literate and each of Shelley Thunen and Frederic Guerard qualifies as an "audit committee financial expert" as defined in applicable SEC rules.

The functions of our audit committee include, among other things:

- select, retain, compensate, evaluate, oversee and, where appropriate, terminate our independent registered public accounting firm;
- review and approve the scope and plans for the audits and the audit fees and approve all non-audit and tax services to be performed by the independent auditor;
- evaluate the independence and qualifications of our independent registered public accounting firm;
- review our financial statements, and discuss with management and our independent registered public accounting firm the results of the annual audit and the quarterly reviews;
- review and discuss with management and our independent registered public accounting firm the quality and adequacy of our internal controls and our disclosure controls and procedures;
- discuss with management our procedures regarding the presentation of our financial information, and review earnings press releases and guidance;
- oversee the design, implementation and performance of our internal audit function, if any;
- set hiring policies with regard to the hiring of employees and former employees of our independent auditor and oversee compliance with such policies;
- review, approve and monitor related party transactions;

- adopt and oversee procedures to address complaints regarding accounting, internal accounting controls and auditing matters, including confidential, anonymous submissions by our employees of concerns regarding questionable accounting or auditing matters;
- review and discuss with management and our independent auditor the adequacy and effectiveness of our legal, regulatory and ethical compliance programs; and
- review and discuss with management and our independent auditor our guidelines and policies to identify, monitor and address enterprise risks, including the oversight of risks from cybersecurity threats.

Our audit committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the listing standards of Nasdaq.

Compensation Committee

The members of our compensation committee are Frederic Guerard, Kimberlee C. Drapkin and Shelley Thunen, and Dr. Guerard serves as the chairperson of the compensation committee. Our board of directors has determined that each of the members of the compensation committee is a non-employee director, as defined in Rule 16b-3 promulgated under the Exchange Act and satisfies the independence requirements of Nasdaq.

The functions of our compensation committee include, among other things:

- review, approve or make recommendations to our board of directors regarding the compensation for our executive officers, including our chief executive officer;
- review, approve and administer our employee benefit and equity incentive plans;
- establish and review the compensation plans and programs of our employees, and ensure that they are consistent with our general compensation strategy;
- determine or make recommendations to our board of directors regarding non-employee director compensation;
- monitor compliance with any stock ownership guidelines; and
- approve or make recommendations to our board of directors regarding the creation or revision of any clawback policy.

Our compensation committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the listing standards of Nasdaq.

Nominating and Corporate Governance Committee

The members of our nominating and corporate governance committee are Jeff George, Kimberlee C. Drapkin, and Zach Scheiner, and Mr. George serves as the chair of the nominating and corporate governance committee. Our board of directors has determined that each of the members of our nominating and corporate governance committee satisfy the independence requirements of Nasdaq.

The functions of our nominating and corporate governance committee include, among other things:

- review and assess and make recommendations to our board of directors regarding desired qualifications, expertise and characteristics sought of board members;
- identify, evaluate, select or make recommendations to our board of directors regarding nominees for election to our board of directors;
- develop policies and procedures for considering stockholder nominees for election to our board of directors;

- review our succession planning process for our chief executive officer and any other members of our executive management team;
- review and make recommendations to our board of directors regarding the composition, organization and governance our board of directors and its committees;
- review and make recommendations to our board directors regarding our corporate governance guidelines and corporate governance framework;
- oversee director orientation for new directors and continuing education for our directors;
- oversee the evaluation of the performance of our board of directors and its committees;
- review and monitor compliance with our code of business conduct and ethics, and review conflicts of interest of our board members and officers other than related party transactions reviewed by our audit committee; and
- administer policies and procedures for communications with the non-management members of our board of directors. Our nominating and corporate governance committee operates under a written charter that satisfies the applicable rules and regulations of the SEC and the listing standards of Nasdaq.

Non-Employee Director Compensation

Our board of directors or our compensation committee will determine the annual compensation to be paid to the members of our board of directors.

Compensation Committee Interlocks and Insider Participation

Kimberlee C. Drapkin, a member of our compensation committee, served as Graphite's President, interim Chief Executive Officer and director prior to the Merger. None of our executive officers currently serve, or has served during the last completed fiscal year, on the compensation committee or board of directors of any other entity that has one or more executive officers that serves as a member of the board of directors or our compensation committee. See the section titled "*Certain Relationships, Related Party and Other Transactions*" for information about related party transactions involving members of our compensation committee or their affiliates.

EXECUTIVE COMPENSATION

To achieve our goals, we have designed, and intend to modify as necessary, our compensation and benefits program to attract, retain, incentivize and reward deeply talented and qualified executives who share our philosophy and desire to work towards achieving these goals.

We believe our compensation program should promote the success of the company and align executive incentives with the long-term interests of our stockholders. As our needs evolve, we intend to continue to evaluate our philosophy and compensation programs as circumstances require.

This section provides an overview of our and LENZ OpCo's executive compensation programs, including a narrative description of the material factors necessary to understand the information disclosed in the summary compensation table below. This section also sets forth information relating to the compensation earned by Graphite's named executive officers for the fiscal years ended December 31, 2023 and 2022, as well as certain information regarding equity awards granted to Graphite's named executive officers that remained outstanding as of December 31, 2023. Unless otherwise indicated, as used in this section, "LENZ," the "Company," "we," "us" and "our" refer to LENZ OpCo prior to the closing of the Merger and New LENZ after the closing of the Merger. Upon the closing of the Merger, the executive officers of LENZ OpCo became executive officers of New LENZ.

Our board of directors, with input from our Chief Executive Officer, has historically determined the compensation for our named executive officers. For the years ended December 31, 2023 and 2022, LENZ OpCo's named executive officers were:

- Evert Schimmelpennink, Chief Executive Officer, President, and Secretary
- Shawn Olsson, Chief Commercial Officer
- Marc Odrich, Chief Medical Officer

For the year ended December 31, 2023, Graphite's named executive officers were:

- Kimberlee Drapkin, Graphite's interim President and Chief Executive Officer†
- Josh Lehrer, M.D., Graphite Bio's former President and Chief Executive Officer+
- Alethia Young, Graphite's former Chief Financial Officer*

† Kimberlee Drapkin served as Graphite's interim President and Chief Executive Officer from August 21, 2023 through the closing of the Merger.
+ Josh Lehrer served as Graphite's President and Chief Executive Officer through August 21, 2023.
* Alethia Young served as Graphite's Chief Financial Officer through June 30, 2023.

Summary Compensation Table for the Fiscal Year Ended December 31, 2023

The following table shows the compensation earned by LENZ OpCo's named executive officers for the fiscal years ended December 31, 2023 and 2022.

Name and principal position	Year	Salary ($)	Bonus ($)[1]	Option awards ($)[2]	All other compensation ($)[3]	Total ($)
Evert Schimmelpennink						
President and Chief Executive Officer	2023	537,438 [4]	335,898	1,630,871	13,200	2,517,407
	2022	508,250	304,950	325,246	12,200	1,150,646
Shawn Olsson						
Chief Commercial Officer	2023	360,997 [5]	157,936	262,887	13,200	795,020
	2022	342,063	123,143	120,087	12,200	597,493
Marc Odrich						
Chief Medical Officer	2023	410,000	153,750	343,213	13,200	920,163
	2022	269,127	96,886	120,087	11,550	497,650

(1) The amounts reported represent discretionary bonuses paid in 2023 and 2024 based upon the achievement of LENZ OpCo goals for the years ended December 31, 2022 and 2023, as determined by the LENZ OpCo board of directors. For additional information regarding these amounts, see the section of this prospectus below titled "*Narrative Disclosure to Summary Compensation Table for the Fiscal Year Ended December 31, 2023.*"

(2) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the stock option awards granted during 2022 and 2023, computed in accordance with FASB ASC Topic 718, Compensation—Stock Compensation. The assumptions used in calculating the grant date fair value of the awards disclosed in this column are set forth in Note 10 to LENZ's audited financial statements included elsewhere in this prospectus. These amounts do not reflect the actual economic value that will be realized by the named executive officer upon the vesting of the stock options, the exercise of the stock options, or the sale of the common stock underlying such stock options.

(3) The amounts reported represent matching contributions under LENZ's 401(k) plan.

(4) The amount reported reflects the total salary earned by Mr. Schimmelpennink in 2023. Mr. Schimmelpennink's annual base salary was $513,000 from January 1, 2023 until January 31, 2023 and was increased to an annual base salary of $538,500 on February 1, 2023.

(5) The amount reported reflects the total salary earned by Mr. Olsson in 2023. Mr. Olsson's annual base salary was $344,500 from January 1, 2023 until January 31, 2023 and was increased to an annual base salary of $361,725 on February 1, 2023.

The following table shows the compensation earned by Graphite's named executive officers for the fiscal years ended December 31, 2023 and 2022, as applicable:

Name and Principal Position	Year	Salary ($)	Bonus ($)	Option Awards ($)[1]	Non-equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total ($)
Kimberlee Drapkin[2]							
Interim President, Chief Executive Officer and Director	2023	200,521	—	71,148	—	—	271,669
Josh Lehrer, M.D[3].							
Former President, Chief Executive Officer and Director	2022	361,778	—	1,050,446 [4]	—	491,253 [5]	1,903,477
	2022	550,000	—	4,705,285	233,750	1,500	5,490,535
Alethia R. Young[6]							
Former Chief Financial Officer	2023	232,950	—	385,164 [7]	—	50,000 [8]	668,114
	2022	337,500	170,000	1,212,715	115,274	151,350	1,986,839

(1) The amounts reported represent the aggregate grant date fair value of the stock options granted to Graphite's named executive officers during the applicable fiscal year, calculated in accordance with FASB ASC Topic 718. Such grant date fair values do not take into account

any estimated forfeitures. The assumptions used in calculating the grant date fair value of the stock options reported in this column are set forth in notes 2 and 11 to Graphite's financial statements included herein for the year ended December 31, 2023. The amounts reported in this column reflect the accounting cost for these stock options and do not correspond to the actual economic value that may be received by Graphite's named executive officers upon the exercise of the stock options or any sale of the underlying shares of common stock.

(2) Ms. Drapkin commenced employment with Graphite on August 21, 2023. Her 2023 annual base salary is pro-rated based on her employment commencement date.

(3) Dr. Lehrer resigned as Chief Executive Officer on August 21, 2023 and transitioned to serve as a consultant to Graphite on such date. His 2023 annual base salary is pro-rated based on his resignation date. Dr. Lehrer did not receive any cash compensation for his services as a consultant to Graphite.

(4) Includes an aggregate grant date fair value of $918,480 for Dr. Lehrer's 2023 option grants as well as an incremental fair value of $131,966, in each case calculated in accordance with FASB ASC Topic 718, related to the modification of the Dr. Lehrer's outstanding options to provide for the extension of their post-termination exercise periods.

(5) Includes a payment equal to $286,000 pursuant to the Lehrer Retention Agreement, as well as severance payments in the amount of $190,667 in base salary continuation and $14,586 in COBRA premium reimbursements, made to Dr. Lehrer pursuant to the Lehrer Separation Agreement.

(6) Ms. Young resigned as Chief Financial Officer, effective June 30, 2023.

(7) Includes an aggregate grant date fair value of $336,776 for Ms. Young's 2023 option grants as well as an incremental fair value of $48,388, in each case calculated in accordance with FASB ASC Topic 718, related to the modification of Ms. Young's outstanding options to provide for the extension of their post-termination exercise periods.

(8) Includes reimbursements for relocation housing assistance paid to Ms. Young for the first quarter of the fiscal year ended December 31, 2023.

Narrative Disclosure to LENZ OpCo's Summary Compensation Table for the Fiscal Year Ended December 31, 2023

Base Salary

See the footnotes to the Summary Compensation Table for the Fiscal Year Ended December 31, 2023 above for information on the base salaries of LENZ OpCo's named executive officers in effect during fiscal years ended 2023 and 2022.

2023 Annual Cash Bonuses

Each of LENZ OpCo's named executive officers is eligible to participate in an annual cash incentive compensation program which provides participants with an opportunity to earn variable cash incentive compensation based on individual and company performance. For 2023, Mr. Schimmelpennink's target bonus was 50% of his base salary, Mr. Olsson's target bonus was 35% of his base salary, and Dr. Odrich's target bonus was 30% of his base salary.

The determination of the 2023 bonus amount was discretionary based on the LENZ OpCo's board of directors assessment of company performance against corporate goals.

The actual annual cash bonuses awarded to each named executive officer for 2023 performance are set forth above in the "Bonus" column of the Summary Compensation Table for the Fiscal Year Ended December 31, 2023.

Outstanding Equity Awards at Fiscal Year-End December 31, 2023

The following table sets forth certain information regarding equity awards granted to LENZ OpCo's named executive officers that remained outstanding as of December 31, 2023. The number of shares subject to each award

and, where applicable, the exercise price per share, reflect all changes as a result of our capitalization adjustments in connection with the Merger.

	Option Awards[1]					Stock Awards	
Name	Grant Date	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)[2]	Option expiration date	Number of shares or units of stock that have not vested (#)	Market value of shares of units of stock that have not vested ($)
Evert Schimmelpennink	3/8/2021	266,135	120,970 [3]	$ 1.04	3/7/2031	—	—
	11/24/2022	56,871	25,851 [3]	$ 5.05	11/23/2032	—	—
	6/20/2023	—	315,864 [4]	$ 6.04	6/19/2033	—	—
Shawn Olsson	8/19/2021	45,316	22,658 [5]	$ 2.08	8/18/2031	—	—
	11/24/2022	20,310	10,155 [5]	$ 5.05	11/23/2032	—	—
	6/20/2023	—	50,915 [4]	$ 6.04	6/19/2033	—	—
Marc Odrich	8/19/2021	—	—	—	—	19,568 [6]	184,844 [7]
	11/24/2022	—	—	—	—	15,855 [8]	149,773 [7]
	6/20/2023	—	66,472 [4]	$ 6.04	6/19/2033	—	—

(1) All of the outstanding stock option awards were granted under and subject to the terms of the LENZ OpCo 2020 Equity Incentive Plan.

(2) The stock option awards were granted with a per share exercise price equal to the fair market value of one share of LENZ OpCo common stock on the date of grant, as determined in good faith by its board of directors based on third party valuations of its common stock.

(3) Twenty-five percent of the shares subject to the option vested on March 8, 2022, and 1/36th of the remaining shares subject to the award shall vest each month thereafter on the same day of the month, subject to Mr. Schimmelpennink continuing to be a service provider to LENZ through each such date. All of the shares underlying the option are subject to an early exercise provision pursuant to which Mr. Schimmelpennink may exercise the option for shares of restricted stock subject to LENZ's right to repurchase such shares that lapses on the same vesting schedule as would have applied to such shares under the option. Additionally, the option is subject to certain equity acceleration benefits provided for in the Severance Policy. For a summary of the material terms of the Severance Policy, please see the section of this prospectus below titled "Potential Payments Upon Termination or Change of Control."

(4) Twenty-five percent of the shares subject to the option shall vest on March 6, 2024, and 1/36th of the remaining shares subject to the award shall vest each month thereafter on the same day of the month, subject to the named executive officer continuing to be a service provider to LENZ through each such date. All of the shares underlying the option are subject to an early exercise provision pursuant to which such named executive officer may exercise the option for shares of restricted stock subject to LENZ's right to repurchase such shares that lapses on the same vesting schedule as would have applied to such shares under the option. Additionally, the option is expected to be subject to certain equity acceleration benefits provided for in the Severance Policy. For a summary of the material terms of the Severance Policy, please see the section of this prospectus below titled "Potential Payments Upon Termination or Change of Control."

(5) Twenty-five percent of the shares subject to the option vested on April 26, 2022, and 1/36th of the remaining shares subject to the award shall vest each month thereafter on the same day of the month, subject to Mr. Olsson continuing to be a service provider to LENZ through each such date. All of the shares underlying the option are subject to an early exercise provision pursuant to which Mr. Olsson may exercise the option for shares of restricted stock subject to LENZ's right to repurchase such shares that lapses on the same vesting schedule as would have applied to such shares under the option. Additionally, the option is expected to be subject to certain equity acceleration benefits provided for in the Severance Policy. For a summary of the material terms of the Severance Policy, please see the section of this prospectus below titled "Potential Payments Upon Termination or Change of Control."

(6) Represents restricted stock obtained on January 28, 2022 upon exercise of an early exercise option. Twenty-five percent of the shares subject to the option vested on July 1, 2022, and 1/36th of the remaining shares subject to the award shall vest monthly in equal installments on the 1st of each month, through July 1, 2025. Additionally, the option is expected to be subject to certain equity acceleration benefits provided for in the Severance Policy. For a summary of the material terms of the Severance Policy, please see the section of this prospectus below titled "Potential Payments Upon Termination or Change of Control."

(7) This amount reflects the fair market value of LENZ OpCo's common stock based on the determination of the fair market value by the LENZ OpCo board of directors as of the most proximate date multiplied by the amount shown in the column for the number of shares or units of stock that have not vested.

(8) Represents restricted stock obtained on December 30, 2022 upon exercise of an early exercise option. Twenty-five percent of the shares subject to the option vested on July 1, 2022, and 1/36th of the remaining shares subject to the award shall vest monthly in equal installments on the 1st of each month, through July 1, 2025. Additionally, the option is expected to be subject to certain equity acceleration benefits provided for in the Severance Policy. For a summary of the material terms of the Severance Policy, please see the section of this prospectus below titled "Potential Payments Upon Termination or Change of Control.

The following table sets forth certain information regarding equity awards granted to Graphite's named executive officers that remained outstanding as of December 31, 2023. The number of shares subject to each award and the exercise price per share are each reported as of December 31, 2023 and do not reflect any changes as a result

of Graphite's capitalization adjustments in connection with the Merger, the reverse stock split or the Special Dividend.

	Option Awards						Stock Awards	
Name	Grant Date	Vesting Commencement Date	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested ($)
Kimberlee C. Drapkin	7/28/2023	7/28/2023	5,555 (3)	34,445	$ 2.52	7/27/2033	—	—
Josh Lehrer	4/20/2020	4/20/2020	—	—	$ —	—	55,867 (4)	146,372
	5/20/2020	4/20/2020	—	—	$ —	—	9,095 (4)	23,829
	1/13/2021	4/20/2020	—	—	$ —	—	31,168 (4)(5)	81,660
	3/17/2021	3/17/2021	546,697 (6)	248,499	$ 6.11	3/16/2031	—	—
	3/17/2021	3/17/2021	234,298 (6)(7)	106,500	$ 6.11	3/16/2031	—	—
	2/16/2022	1/1/2022	311,458 (6)	338,542	$ 11.02	2/15/2032	—	—
	2/21/2023	1/1/2023	450,000 (8)	150,000	$ 2.18	2/20/2033	—	—
Alethia R. Young	4/1/2022	4/1/2022	109,375	350,000	$ 5.23	7/3/2024	—	—
	2/21/2023	1/1/2023	110,000 (9)	110,000	$ 5.23	7/3/2024	—	—

(1) Each equity award is subject to the terms of Graphite's 2020 Stock Option and Grant Plan, as amended (the "2020 Graphite Plan"), or Graphite's 2021 Stock Option and Incentive Plan, as amended (the "2021Graphite Plan"). Grants made subsequent to June 24, 2021 are subject to the terms of the 2021 Graphite Plan.

(2) Based on the closing price of a share of the Graphite common stock on December 29, 2023, the last business day of the most recently completed fiscal year, which was $2.62.

(3) The shares of common stock underlying the option vest in 36 equal monthly installments following the vesting commencement date, subject to the named executive officer's continuous service relationship with Graphite through each applicable vesting date. Notwithstanding the foregoing, in connection with the consummation of the Merger, all unvested shares immediately vested and became exercisable.

(4) The shares of restricted stock vest as follows: 25% of the shares on the first anniversary of the vesting commencement date and the remaining 75% in 36 equal monthly installments thereafter, subject to the named executive officer's continuous service relationship with Graphite through each applicable vesting date, including his continuous service relationship as a consultant to Graphite. During his post-employment consulting period, Dr. Lehrer's outstanding equity awards continued to vest in accordance with the foregoing terms.

(5) The named executive officer received an early exercisable stock option award, which the named executive officer early exercised in its entirety.

(6) The shares of Graphite common stock underlying the option vest in 48 equal monthly installments following the vesting commencement date, subject to the named executive officer's continuous service relationship with Graphite through each applicable vesting date. Notwithstanding the foregoing, during his post-employment consulting period, Dr. Lehrer's outstanding equity awards continued to vest in accordance with the foregoing terms.

(7) The option was granted subject to the achievement by Graphite of performance vesting criteria. On June 29, 2021, the performance vesting criteria was met such that the option became subject to time-based vesting in accordance with the vesting schedule described in footnote (6) above.

(8) The shares of common stock underlying the option vest in 48 equal monthly installments following the vesting commencement date, subject to the named executive officer's continuous service relationship with the Company through each applicable vesting date. Notwithstanding the foregoing, pursuant to the separation and release agreement entered into between Graphite and Dr. Lehrer, 50% of the unvested shares underlying such option accelerated upon his termination with Graphite (i.e., August 21, 2023), and the remaining unvested shares continued to vest during his post-employment consulting period in accordance with the foregoing vesting terms.

(9) The shares of common stock underlying the option vest in 48 equal monthly installments following the vesting commencement date, subject to Ms. Young's continuous service relationship with the Company through each applicable vesting date. Notwithstanding the foregoing, upon Ms. Young's resignation, fifty percent (50%) of the unvested shares underlying such option accelerated and the remaining unvested shares of Graphite common stock were forfeited.

Employment Arrangements with Named Executive Officers

Evert Schimmelpennink

In connection with the closing of the Transactions, LENZ entered into a confirmatory employment letter with Mr. Schimmelpennink, its Chief Executive Officer. The confirmatory employment letter has no specific term and provides that Mr. Schimmelpennink is an at-will employee. The confirmatory employment letter supersedes all pre-existing agreements and understandings that Mr. Schimmelpennink may have entered into concerning his employment relationship with LENZ. Prior to the Closing, Mr. Schimmelpennink's annual base salary was $538,500 and he was eligible for an annual target cash bonus opportunity equal to 50% of his base salary. As of the Closing

Date, pursuant to the confirmatory employment letter, Mr. Schimmelpennink's annual base salary was increased to $630,000 and he is eligible for a target annual cash bonus opportunity equal to 55% of his annual base salary.

Marc Odrich

In connection with the closing of the Transactions, LENZ entered into a confirmatory employment letter with Dr. Odrich, its Chief Medical Officer. The confirmatory employment letter has no specific term and provides that Dr. Odrich is an at-will employee. The confirmatory employment letter supersedes all pre-existing agreements and understandings that Dr. Odrich may have entered into concerning his employment relationship with LENZ. Prior to the Closing, Dr. Odrich's annual base salary was $410,000 and he was eligible for an annual target cash bonus opportunity equal to 30% of his base salary. As of the Closing Date, pursuant to the confirmatory employment letter, Dr. Odrich's annual base salary was increased to $485,000 and he is eligible for a target annual cash bonus opportunity equal to 40% of his annual base salary.

Shawn Olsson

In connection with the closing of the Transactions, LENZ entered into a confirmatory employment letter with Mr. Olsson, its Chief Commercial Officer. The confirmatory employment letter has no specific term and provides that Mr. Olsson is an at-will employee. The confirmatory employment letter supersedes all pre-existing agreements and understandings that Mr. Olsson may have entered into concerning his employment relationship with LENZ. Prior to the Closing, Mr. Olsson's annual base salary was $361,725 and he was eligible for an annual target cash bonus opportunity equal to 35% of his base salary. As of the Closing Date, pursuant to the confirmatory employment letter, Mr. Olsson's annual base salary was increased to $433,000 and he is eligible for a target annual cash bonus opportunity equal to 40% of his annual base salary.

Equity Based Incentive Awards

Our equity-based incentive awards are designed to more closely align our interests and those of our stockholders with those of our employees and consultants, including our named executive officers. Our board of directors is responsible for approving equity grants to our employees and consultants, including our named executive officers. In 2023, stock option awards were the only form of equity awards LENZ OpCo granted to its named executive officers. LENZ OpCo granted equity incentive awards under the terms of its 2020 Equity Incentive Plan (the "2020 Plan"), which was terminated in connection with the Merger. The terms of the 2020 Plan are described below under "*LENZ OpCo 2020 Equity Incentive Plan*."

All options under the 2020 Plan were granted with an exercise price per share that was no less than the fair market value of a share of LENZ OpCo common stock on the date of grant of such award, as determined in good faith by the LENZ OpCo board of directors. Our stock option awards generally vest over a four-year period and may be subject to acceleration of vesting and exercisability under certain termination and change in control events. See "*—Outstanding Equity Awards at Fiscal 2023 Year-End December 31, 2023*."

Recent Grants

On March 21, 2024, New LENZ's board of directors granted (i) Mr. Schimmelpennink an option to purchase 475,000 shares of Common Stock, (ii) Marc Odrich an option to purchase 105,000 shares of Common Stock, and (iii) Shawn Olsson an option to purchase 105,000 shares of Common Stock. Each of the options were granted under the 2024 Equity Incentive Plan (the "2024 Plan") and the form of option agreement thereunder and has a per share exercise price of $15.05. Twenty-five percent (25%) of the shares subject to the option shall vest on March 21, 2025, and one thirty-sixth (1/36th) of the remaining shares subject to the option shall vest each month thereafter, subject to such individual continuing to be a service provider to us through each such date.

Potential Payments Upon Termination or Change of Control

Regardless of the manner in which an officer's service terminates, that officer is entitled to receive amounts earned during his or her term of service, including unpaid salary and unused vacation, as applicable.

Each of Mr. Schimmelpennink, Mr. Odrich and Mr. Olsson holds stock options granted subject to the general terms of the 2020 Plan and the 2024 Plan. A description of the termination and change in control provisions in the 2020 Plan and applicable to the stock options granted to such officers under the 2020 Plan is provided below in the section titled "*LENZ OpCo 2020 Equity Incentive Plan*" and a description of such provisions applicable to the 2024 Plan and stock options granted under such plan are provided below in the section titled "*2024 Equity Incentive Plan*".

In connection with the Closing, New LENZ adopted an executive change in control and severance policy (the "Severance Policy") for eligible employees of New LENZ, including the executive officers and other key employees, effective as of the Closing. The Severance Policy is designed to be an "employee welfare benefit plan" (as defined in Section 3(1) of the Employee Retirement Income Security Act of 1974, as amended). The compensation committee of the board of directors of New LENZ will administer the Severance Policy, and designate individuals as eligible to participate in the Severance Policy, whether individually or by position or category of position. Each participant in the Severance Policy must execute a participation agreement (each an "Eligible Employee").

Pursuant to the Severance Policy, upon a termination of an Eligible Employee's employment (x) by New LENZ without Cause (as such term is defined in the Severance Policy) (excluding by reason of the Eligible Employee's death or disability) or (y) by the Eligible Employee for Good Reason (as such term is defined in the Severance Policy) (such termination, a "Qualified Termination"), in either case, outside of the period beginning 3 months prior to a Change in Control (as such term is defined in the Severance Policy) and ending 12 months following a Change in Control (the "Change in Control Period"), (the "Non-CIC Qualified Termination"), Eligible Employees will be eligible to receive (i) a lump sum payment equal to (A) 12 months of annualized base salary with respect to New LENZ's Chief Executive Officer, (B) 9 months of annualized base salary with respect to New LENZ's Senior Vice Presidents and Executive Officers other than New LENZ's Chief Executive Officer, and (C) 3 months plus 2 weeks per year of continuous service of annualized base salary with respect to New LENZ's Vice Presidents, and (ii) subject to a valid election under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the cost of such continuation coverage for the Eligible Employee and any of the Eligible Employee's eligible dependents that were covered under New LENZ's health care plans immediately prior to the date of his or her Non-CIC Qualified Termination until the earliest of the date which the Eligible Employee or their eligible dependents become covered under similar plans, the date which the Eligible Employee ceases to be eligible for coverage under COBRA, or (A) 12 months following the Non-CIC Qualified Termination with respect to New LENZ's Chief Executive Officer, (B) 9 months following the Non-CIC Qualified Termination with respect to New LENZ's Senior Vice Presidents and Executive Officers other than New LENZ's Chief Executive Officer, and (C) 3 months plus 2 weeks per year of continuous service following the Non-CIC Qualified Termination with respect to New LENZ's Vice Presidents. Any unvested portion of the Eligible Employee's then-outstanding equity awards will remain outstanding until the earlier of (A) 3 months following the Non-CIC Qualified Termination or (B) the occurrence of a Change in Control, provided that, if no Change in Control occurs within the 3 months following a Non-CIC Qualified Termination, any unvested portion of the Eligible Employee's equity awards automatically and permanently will be forfeited on the 3-month anniversary following such termination date without having vested.

If a Qualified Termination occurs during a Change in Control Period (the "CIC Qualified Termination"), the Eligible Employee will be entitled to receive (i) a lump sum payment equal to (A) 18 months of annualized base salary with respect to New LENZ's Chief Executive Officer, (B) 12 months of annualized base salary with respect to New LENZ's Senior Vice Presidents and Executive Officers other than New LENZ's Chief Executive Officer, and (C) 6 months of annualized base salary with respect to New LENZ's Vice Presidents, (ii) subject to a valid election under COBRA, the cost of such continuation coverage for the Eligible Employee and any of the Eligible Employee's eligible dependents that were covered under New LENZ's health care plans immediately prior to the date of his or her CIC Qualified Termination until the earliest of the date which the Eligible Employee or their eligible dependents become covered under similar plans, the date which the Eligible Employee ceases to be eligible for coverage under COBRA, or (A) 18 months following the CIC Qualified Termination with respect to New LENZ's Chief Executive Officer, (B) 12 months following the CIC Qualified Termination with respect to New LENZ's Senior Vice Presidents and Executive Officers other than New LENZ's Chief Executive Officer, and (C) 6 months following the CIC Qualified Termination with respect to New LENZ's Vice Presidents, (iii) a lump-sum payment equal to a

percentage of the Eligible Employee's target bonus in effect for the fiscal year which the CIC Qualified Termination occurs in, which such percentage is (A) 150% with respect to New LENZ's Chief Executive Officer, (B) 100% with respect to New LENZ's Senior Vice Presidents and Executive Officers other than New LENZ's Chief Executive Officer, and (C) 50% with respect to New LENZ's Vice Presidents, and (iv) acceleration of vesting as to 100% of the then-unvested shares or rights subject to all of the Eligible Employee's equity awards. In the case of an equity award subject to performance-based vesting conditions, unless otherwise specified in the applicable equity award agreement governing the award, all performance goals and other vesting criteria will be deemed achieved at target.

The Severance Policy further provides that if any payment or benefit that an Eligible Employee would receive from New LENZ or any other party (the "Payment") would (i) constitute a "parachute payment" within the meaning of Section 280G of the Code, and (ii) be subject to the excise tax imposed by Section 4999 of the Code (the "Excise Tax"), then such Payment will be equal to the Best Results Amount. The "Best Results Amount" will be either (x) the full amount of such Payment or (y) such lesser amount as would result in no portion of the Payment being subject to the Excise Tax, whichever of the foregoing amounts, taking into account the applicable federal, state and local employment taxes, income taxes and the Excise Tax, results in the Eligible Employee's receipt, on an after-tax basis, of the greater amount notwithstanding that all or some portion of the Payment may be subject to the Excise Tax.

The receipt of payments and benefits under the Severance Policy is subject to the Eligible Employee signing and not revoking a separation agreement and release of claims no later than the sixtieth (60th) day following the Eligible Employee's termination.

For purposes of the Severance Policy, for the avoidance of doubt, Mr. Schimmelpennink will participate at the level of benefits provided to New LENZ's Chief Executive officer, and Mr. Olsson and Dr. Odrich will participate at the level of benefits provided to New LENZ's Senior Vice Presidents and Executive Officers other than New LENZ's Chief Executive Officer.

Executive Incentive Compensation Plan

Our Board approved an Employee Incentive Compensation Plan (the "Incentive Compensation Plan") to provide periodic incentive bonus opportunities to our employees, effective upon Closing.

The Incentive Compensation Plan allows the plan's administrator to grant incentive awards, generally payable in cash, to employees selected by the compensation committee, including the executive officers of the Company, based upon performance goals established by the compensation committee.

Under the Incentive Compensation Plan, the plan's administrator will determine the performance goals, if any, applicable to any award, which goals may include, without limitation, goals related to: attainment of research and development milestones; sales bookings; business divestitures and acquisitions; capital raising; cash flow; cash position; contract awards or backlog; corporate transactions; customer renewals; customer retention rates from an acquired company, subsidiary, business unit or division; earnings (which may include any calculation of earnings, including but not limited to earnings before interest and taxes, earnings before taxes, earnings before interest, taxes, depreciation and amortization and net taxes); earnings per share; expenses; financial milestones; gross margin; growth in stockholder value relative to the moving average of the S&P 500 Index or another index; internal rate of return; leadership development or succession planning; license or research collaboration arrangements; market share; net income; net profit; net sales; new product or business development; new product invention or innovation; number of customers; operating cash flow; operating expenses; operating income; operating margin; overhead or other expense reduction; patents; procurement; product defect measures; product release timelines; productivity; profit; regulatory milestones or regulatory-related goals; retained earnings; return on assets; return on capital; return on equity; return on investment; return on sales; revenue; revenue growth; sales results; sales growth; savings; stock price; time to market; total stockholder return; working capital; unadjusted or adjusted actual contract value; unadjusted or adjusted total contract value; and individual objectives such as peer reviews or other subjective or objective criteria. As determined by the administrator, the performance goals may be based on U.S. generally accepted accounting principles ("GAAP") or non GAAP results and any actual results may be adjusted by the administrator for one-time items or unbudgeted or unexpected items and/or payments of actual awards under the

Incentive Compensation Plan when determining whether the performance goals have been met. The performance goals may be based on any factors the administrator determines relevant, including without limitation on an individual, divisional, portfolio, project, business unit, segment or company-wide basis. Any criteria used may be measured on such basis as the administrator determines, including without limitation: (a) in absolute terms, (b) in combination with another performance goal or goals (for example, but not by way of limitation, as a ratio or matrix), (c) in relative terms (including, but not limited to, results for other periods, passage of time and/or against another company or companies or an index or indices), (d) on a per-share basis, (e) against the performance of the Company as a whole or a segment of the Company and/or (f) on a pre-tax or after-tax basis. The performance goals may differ from participant to participant and from award to award. The administrator also may determine that a target award (or portion thereof) will not have a performance goal associated with it but instead will be granted (if at all) as determined by the administrator.

The compensation committee of the board of directors will administer the Incentive Compensation Plan and may, in its sole discretion and at any time prior to payment of an actual award, increase, reduce or eliminate a participant's actual award, and/or increase, reduce or eliminate the amount allocated to the bonus pool for a particular performance period. The actual award may be below, at or above a participant's target award, as determined by the administrator. The administrator may determine the amount of any increase, reduction or elimination on the basis of such factors as it deems relevant, and it will not be required to establish any allocation or weighting with respect to the factors it considers.

Actual awards generally will be paid in cash (or its equivalent) in a single lump sum only after they are earned, and, unless otherwise determined by the administrator, to earn an actual award a participant must be employed by us through the date the actual award is paid. The administrator of the Incentive Compensation Plan may reserve the right to settle an actual award with a grant of an equity award, which equity award may have such terms and conditions, including vesting, as the administrator determines. Payment of awards will occur as soon as practicable after the end of the performance period to which the award relates and after the actual award is approved by the administrator, but no later than the dates set forth in the Incentive Compensation Plan.

Awards under the Incentive Compensation Plan will be subject to the clawback policy of the Company. The administrator also may impose such other clawback, recovery or recoupment provisions with respect an award under the Incentive Compensation Plan as the administrator determines necessary or appropriate, including, without limitation, a reacquisition right in respect of previously acquired cash, stock or other property provided with respect to an award. Certain participants may be required to reimburse us for certain amounts paid under an award under the Incentive Compensation Plan in connection with certain accounting restatements we may be required to prepare due to our material noncompliance with any financial reporting requirements under applicable securities laws, as a result of misconduct.

The administrator will have the authority to amend, suspend or terminate the Incentive Compensation Plan, provided such action does not alter or impair the existing rights of any participant with respect to any earned awards.

Benefits and Perquisites

We provide benefits to our executive officers on the same basis as provided to all of our employees, including health, dental and vision insurance; life insurance; accidental death and dismemberment insurance; short-and long-term disability insurance; a flexible spending account; and a tax-qualified Section 401(k) plan. We do not maintain any executive-specific benefit or perquisite programs.

Retirement Benefits

We maintain a 401(k) retirement savings plan, which is intended to be a tax qualified defined contribution plan under Section 401(k) of the Internal Revenue Code of 1986, as amended (the "Code"), for the benefit of our employees, including certain of our named executive officers, who satisfy certain eligibility requirements. Under the 401(k) plan, eligible employees may elect to defer a portion of their compensation, within the limits prescribed by the Code, on a pre-tax (traditional) or post-tax (Roth) basis, through contributions to the 401(k) plan. As a tax-qualified retirement plan, pre-tax contributions to the 401(k) plan and earnings on those pre-tax contributions are not

taxable to the employees until distributed from the 401(k) plan, and earnings on Roth contributions are not taxable when distributed from the 401(k) plan.

The 401(k) plan authorizes employer safe harbor matching contributions and discretionary profit-sharing contributions. We make matching contributions under the 401(k) plan on behalf of our employees who are eligible to participate in the 401(k) plan. Matching contributions follow certain safe harbor provisions, pursuant to which we make a matching contribution equal to 100% of an eligible employee's contributions which do not exceed 3% of such employee's compensation, plus 50% of an eligible employee's contributions which exceed 3% but not 5% of such employee's compensation. We also may choose to make profit-sharing contributions to our employees who are eligible to participate in the 401(k) plan. Profit-sharing contributions may be provided at our sole discretion, and may be allocated so that each participant receives a different amount of profit-sharing as long as the contributions comply with IRS nondiscrimination requirements. Participants are always 100% immediately vested in safe harbor matching and profit sharing contributions under the 401(k) plan. LENZ OpCo did not make any profit sharing contributions under the 401(k) plan during 2023. The matching contributions made to our named executive officers in 2023 are set forth in the "All Other Compensation" column of the Summary Compensation Table for the Fiscal Year Ended December 31, 2023.

LENZ OpCo 2020 Equity Incentive Plan

The 2020 Plan allowed LENZ OpCo to provide incentive stock options, within the meaning of Section 422 of the Code, nonstatutory stock options, stock appreciation rights, restricted stock awards and restricted stock units (each, an "award" and the recipient of such award, a "participant") to any of LENZ OpCo's eligible employees, directors, and consultants of and any parent or subsidiary of LENZ OpCo. The 2020 Plan was terminated in connection with the closing of the Merger and we will not grant any additional awards under the 2020 Plan. However, the 2020 Plan will continue to govern the terms and conditions of the outstanding awards previously granted under the 2020 Plan and assumed by us at the closing of the Merger.

As of March 21, 2024, and after giving effect to the closing of the Merger, stock options covering 1,590,018 shares of Common Stock were outstanding under the 2020 Plan.

Authorized Shares. Subject to the adjustment provisions in the 2020 Plan, the maximum aggregate number of shares of LENZ OpCo Common Stock that could have been granted under the 2020 Plan prior to the consummation of the Merger was 11,385,409 shares of LENZ OpCo Common Stock (prior to giving effect to the Merger or the impact of the exchange ratio). The shares eligible for grant could have been authorized, but unissued, or reacquired Common Stock.

Plan Administration. The 2020 Plan is administered by the board of directors or a committee of the board of directors, or a combination thereof, as determined by the board of directors. Any committee appointed by the board of directors to administer the 2020 Plan may, from time to time, be increased by the board of directors, which may appoint additional members or remove members of the committee with or without cause, including removing all members and directly administering the 2020 Plan.

Subject to the provisions of the 2020 Plan, the administrator will have the power to administer the 2020 Plan, including but not limited to: the power to determine the fair market value of the Common Stock in accordance with the provisions of the 2020 Plan; select the employees and consultants (including directors) to whom awards may from time to time be granted; determine whether and to what extent awards are granted; determine the number of shares of Common Stock covered by each award; approve forms of award agreements for use under the 2020 Plan; determine the terms and conditions not inconsistent with the terms of the 2020 Plan of any award granted, which terms and conditions include but are not limited to the exercise or purchase price, the time or times when awards may be exercised (which may be based on performance criteria), any vesting acceleration or waiver of forfeiture restrictions, any pro rata adjustment to vesting as a result of a holder of an award's transitioning from full-to part-time service (or vice versa), and any restriction or limitation regarding any stock option, optioned stock, stock right or restricted stock, based in each case on such factors as the administrator determines; determine whether and under what circumstances a stock option may be settled in cash under the provisions of the 2020 Plan instead of Common Stock; implement a program approved by the administrator of the 2020 Plan where outstanding stock options can be

exchanged for stock options with a lower exercise price or amended to decrease the exercise price on such terms and conditions as the administrator in its discretion deems appropriate, provided that no amendment or adjustment to a stock option that would materially and adversely affect the rights of a holder of a stock option shall be made without the prior written consent of the holder of that stock option; adjust the vesting of a stock option held by an employee, director or consultant as a result of a change in the terms or conditions under which such person is providing services to LENZ; construe and interpret the terms of the 2020 Plan and awards granted under it; without amending the 2020 Plan, modify grants of stock options or stock rights to any holder of stock options or stock rights who are foreign nationals or employed outside of the United States in order to recognize differences in local law, tax policies, or customs. The administrator's constructions, interpretations, and decisions will be final and binding on all participants.

Stock Options. The 2020 permitted the grant of stock options. Incentive stock options may be granted only to employees, including employees who are also directors. Each stock option shall be designated in an option agreement as either an incentive stock option or a nonstatutory stock option. Prior to the consummation of the Merger, the maximum number of shares of Common Stock with respect to which incentive stock options could have been granted under the 2020 Plan was 11,385,409.

The term of each stock option shall be the term stated in the applicable option agreement; provided that the term shall be no more than ten years from the date of grant, or such shorter term as may be provided in the option agreement. In the case of an incentive stock option granted to a person who at the time of such grant owns more than ten percent of the voting power of all classes of LENZ's outstanding stock, the term of the stock option shall be five years from the date of grant or such shorter term as may be provided in the applicable option agreement.

The per share exercise price of options granted under the 2020 Plan will be a price determined by the administrator that is set forth in the applicable option agreement. In the case of incentive stock options granted to an employee who at the time of grant, owns more than ten percent of the voting power of all classes of LENZ's outstanding stock, the term of an incentive stock option granted to such participant must not exceed five years and the exercise price must equal at least one-hundred ten percent of the fair market value of Common Stock on the grant date. In the case of nonstatutory stock options granted on any date on which its Common Stock is not a security of LENZ's that is listed or approved for listing on a national securities exchange or designated or approved for designation as a national market system security on an interdealer quotation system by the Financial Industry Regulatory Authority, Inc. (a "Listed Security"), the per share exercise price will be the price determined by the Administrator; or granted on any date on which the Common Stock is a Listed Security to any eligible person, the per share exercise price shall be a price determined by the administrator based on the closing price of LENZ's Common Stock for the applicable date. No nonstatutory stock option will be granted with a per share exercise price less than one-hundred percent of the fair market value on the date of grant unless the administrator explicitly designates such as a discounted option with terms intended to avoid additional taxes under Section 409A of the Code.

The administrator determines the consideration to be paid for shares issued upon exercise of a stock option, including the methods of payment (in the case of incentive stock options this will be determined at the time of grant), which may include cash, check, delivery of a promissory note having recourse, interest, security and redemption provisions determined by the administrator, other shares that have a fair market value on the date of surrender equal to the aggregate exercise price of the shares to which the stock option is exercised (provided that in the case of shares provided directly or indirectly by LENZ, the shares must have been owned for more than six months on the date of surrender (or such period as may be required for securities law purposes to avoid LENZ incurring an adverse accounting charge); by net exercise or by a cashless exercise method, including a broker-assisted cashless exercise; any combination thereof; or any other consideration or method of payment acceptable to the administrator, to the extent permitted by applicable law.

The administrator will establish in the applicable option agreement the terms and conditions in which a stock option will remain exercisable, if at all, following termination of a participant. Unless the administrator provides in the applicable option agreement, if an option holder does not exercise their stock option to the extent they are entitled to do so within the time specified in their option agreement, the stock option will terminate and the optioned stock underlying the unexercised portion of the stock option will revert to the 2020 Plan. If an employee, director or

consultant is terminated other than for death, disability or for cause, the option holder may exercise their option for ninety days following their termination to the extent they are vested in the optioned stock (they may exercise their stock option for twelve months in the event of termination due to disability or death). If terminated for cause, a participant's stock options will immediately terminate in their entirety.

Stock Rights. The 2020 Plan permitted the grant of stock rights. A stock right is the right to acquire Common Stock pursuant to the 2020 Plan. The administrator will advise a participant in writing of the terms, conditions and restrictions related to the stock right, including the number of shares that the participant will be entitled to acquire, the price to be paid, and the time within which the participant must accept such offer. The offer to purchase shares subject to a stock right will be accepted by execution of a restricted stock agreement in the form determined by the administrator. The restricted stock agreement will grant LENZ a repurchase option exercisable upon the voluntary or involuntary termination of the participant's employment or other service arrangement with LENZ for any reason (including death or disability), unless determined otherwise by the administrator.

If the participant is terminated for cause, LENZ will have the right to repurchase from the participant any vested shares derived from a stock right prior to the date, if any, upon which LENZ's Common Stock becomes a Listed Security. LENZ's right to repurchase such shares upon termination of such participant's service for cause shall be made at the lower of (A) the participant's original cost for the shares and (B) the fair market value of the shares as of the date of termination, and shall be effected pursuant to such terms and conditions, and at such time, as the administrator shall determine.

Non-Transferability of Awards. The 2020 Plan generally does not allow stock options, stock rights or shares issued upon the exercise of either to be sold, pledged, assigned, hypothecated, transferred or disposed of in any manner other than by will, or by the laws of descent or distribution, except as set forth in the 2020 Plan. The administrator may, in its discretion, grant nonstatutory stock options that may be transferred by instrument to an inter vivos or testamentary trust in which the stock options are to be passed to beneficiaries upon the death of the trustor (settlor) or by gift or pursuant to domestic relations orders to immediate family members of the holder of the stock option.

Certain Adjustments. Subject to any action required under applicable law, in the event of a stock split, reverse stock split, stock dividend, combination, recapitalization or reclassification of LENZ's Common Stock, or any other increase or decrease in the number of issued shares without receipt of consideration by LENZ, a proportionate adjustment will be made in the number of shares covered by each outstanding award, and the number of shares that have been authorized for issuance under the 2020 Plan but as to which no awards have yet been granted or that have been returned to the 2020 Plan upon cancellation or expiration of an award, as well as the price per share covered by each such outstanding award. The adjustment will be made by the administrator, whose determination will be final, binding and conclusive.

Dissolution or Liquidation. In the event of LENZ's liquidation or dissolution, each stock option or stock right will terminate immediately prior to the consummation of such event, unless determined otherwise by the administrator.

Change of Control. The 2020 Plan provides that in the event of a change of control, as defined under the plan, the LENZ board of directors or a committee appointed by its board of directors may provide for: (1) the acceleration in part or whole of the right to exercise a stock option or the vesting of any award; (2) the assumption or substitution of, or adjustment to, each outstanding stock option by the successor corporation or a parent or subsidiary of the successor corporation; (3) the termination of any stock option not exercised within a specified period of notice of such termination; and/or (4) termination of stock options as a result of the change of control on such other terms and conditions as it deems appropriate, including providing for the cancellation of stock options for a cash payment to the participant. The plan's administrator does not have to provide for identical treatment of each outstanding award in connection with a merger or change in control.

In the event of any distribution to LENZ stockholders of securities of any other entity or other assets (other than dividends payable in cash or stock of the company) without receipt of consideration by LENZ, the administrator

may, in its discretion, adjust the price per share of LENZ's Common Stock covered by each outstanding stock option or stock right to reflect the effect of such distribution.

Amendment and Termination. As noted above, in connection with the closing of the Merger, the 2020 Plan terminated and we will not grant any additional awards under the 2020 Plan.

2024 Equity Incentive Plan

The following paragraphs summarize the key features of the 2024 Plan and its operation. However, this summary is not a complete description of all of the provisions of the 2024 Plan and is qualified in its entirety by the specific language of the 2024 Plan.

As of March 21, 2024, stock options covering 1,325,800 shares of Common Stock were outstanding under the 2024 Plan.

Purposes of the 2024 Plan. The purposes of the 2024 Plan are to attract and retain personnel for positions with the combined company; to provide additional incentive to employees, directors, and consultants; and to promote the success of the combined company's business. These incentives are provided through the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock, restricted stock units, or performance awards.

Eligibility. The 2024 Plan will provide for the grant of incentive stock options, within the meaning of Section 422 of the Code, to employees of LENZ and any member of the company group, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance awards to the combined company's employees, directors and consultants and any member of the company group.

Authorized Shares. Subject to adjustment upon certain changes in the Company's capitalization as described in the 2024 Plan, the maximum number of shares of common stock that will be available for issuance under the 2024 Plan will be 3,011,948 shares of common stock, plus (i) any shares subject to awards granted under the 2020 Plan (including, but not limited to, awards granted under the 2020 Plan that were assumed in the Merger), Graphite's 2021 Stock Option and Incentive Plan and Graphite's 2020 Stock Option and Grant Plan) that, on or after the effective date of the merger, expire or terminate without having been exercised in full, are tendered to or withheld for payment of an exercise price or for tax withholding obligations, are forfeited or repurchased due to failure to vest, with a maximum number of shares that may be added to the 2024 Plan equal to 1,607,930 shares, plus (ii) any shares that become available for issuance due to the automatic share reserve increase or share reserve return (as described below) will be reserved for issuance under the 2024 Plan.

The number of shares available for issuance under the 2024 Plan will include an annual increase on the first day of each fiscal year beginning with the 2025 fiscal year, equal to the least of:

- 4,517,922 shares.
- 5% of the outstanding shares of common stock as of the last day of the immediately preceding fiscal year; or
- a number of lesser shares as determined by the 2024 Plan's administrator.

The automatic share reserve increase will operate only until the tenth anniversary of the earlier of the board or stockholder approval of the 2024 Plan.

If an award of options or stock appreciation rights expire or become unexercisable without having been exercised in full, is surrendered pursuant to an exchange program, or, with respect to restricted stock, restricted stock units, or stock-settled performance awards, are reacquired by the combined company due to failure to vest or forfeited to the combined company, the unpurchased or unissued shares will become available for future issuance under the 2024 Plan (unless the 2024 Plan has terminated). With respect to stock appreciation rights, only the net shares actually issued will cease to be available under the 2024 Plan and all remaining shares of common stock subject to the stock appreciation right will remain available for future issuance under the 2024 Plan (unless the 2024

Plan has terminated). Shares that have actually been issued under the 2024 Plan will not be returned to the 2024 Plan. Shares used to pay the exercise price of an award or satisfy the tax withholding obligations related to an award will become available for future issuance under the 2024 Plan. To the extent an award is paid out in cash rather than shares, such cash payment will not result in a reduction in the number of shares available for issuance under the 2024 Plan.

Plan Administration. The combined company's board of directors or a committee appointed by the board of directors will administer the 2024 Plan. The combined company's board of directors or the committee appointed by them may delegate to one or more subcommittees or officers of the combined company, the authority to grant awards to employees of the combined company, if this delegation complies with applicable laws this delegation can be revoked by the combined company's board of directors or the committee they appointed. Different administrators may administer the 2024 Plan with respect to different groups of employees, directors, and consultants. The combined company's board of directors may retain the authority to administer the 2024 Plan along with a committee and may revoke delegation of some or all of the authority delegated to that committee. The combined company's compensation committee will initially administer the 2024 Plan. Subject to the provisions of the 2024 Plan, the administrator has the power to administer the 2024 Plan and make all determinations deemed necessary or advisable for administering the 2024 Plan, including but not limited to, the power to determine the fair market value of the combined company's common stock, select the service providers to whom awards may be granted, determine the number of shares covered by each award, approve forms of award agreements for use under the 2024 Plan, determine the terms and conditions of awards (including, but not limited to, the exercise price, the time or times at which awards may be exercised, any vesting acceleration or waiver or forfeiture restrictions and any restriction or limitation regarding any award or the shares relating thereto), construe and interpret the terms of the 2024 Plan and awards granted under it, establish, amend and rescind rules relating to the 2024 Plan, including adopting sub-plans, interpret, modify or amend each award, including but not limited to the discretionary authority to extend the post-termination exercisability period of awards, and allow a participant to defer the receipt of payment of cash or the delivery of shares that would otherwise be due to such participant under an award. The administrator also has the authority to allow participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator and to institute an exchange program by which outstanding awards may be surrendered or cancelled in exchange for awards of the same type, which may have a higher or lower exercise price and/or different terms, awards of a different type, and/or cash or by which the exercise price of an outstanding award is increased or reduced. The administrator's decisions, determinations, and interpretations are final and binding on all participants.

Stock Options. Stock options may be granted under the 2024 Plan. The exercise price of options granted under the 2024 Plan must generally be at least equal to the fair market value of the combined company's common stock on the date of grant. The term of an option may not exceed ten years. With respect to any participant who owns more than 10% of the voting power of all classes of the combined company's (or any parent or subsidiary of the combined company's) outstanding stock, the term of an incentive stock option granted to such participant must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. The administrator will determine the methods of payment of the exercise price of an option, which may include cash, shares or other property acceptable to the administrator, as well as other types of consideration permitted by applicable law. After the termination of service of an employee, director, or consultant (except for termination as a result of death or disability), he or she may exercise his or her option for a period of thirty days or such longer period of time stated in his or her option agreement. If termination is due to death or disability, the option will remain exercisable for six months following the termination of service or such longer period of time as specified in the participant's award agreement. Subject to the provisions of the 2024 Plan, the administrator determines the other terms of options.

Stock Appreciation Rights. Stock appreciation rights may be granted under the 2024 Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of the combined company's common stock between the exercise date and the date of grant. The administrator of the 2024 Plan will determine the number of shares of common stock subject to a stock appreciation right, its exercise price a, the expiration date of a stock appreciation right, and other terms and conditions, which will be set forth in an award agreement. The per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

Restricted Stock. Restricted stock may be granted under the 2024 Plan. Restricted stock awards are grants of shares of the combined company's common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares subject an award of restricted stock and will determine the terms and conditions of such awards. Unless determined otherwise by the administer, shares of restricted stock will be held in escrow while unvested. Recipients of restricted stock awards generally may exercise full voting rights with respect to such shares while unvested, unless the administrator provides otherwise. An award recipient of restricted stock will not be entitled to receive dividends or other distributions paid with respect to the shares underlying the restricted stock award while those shares are unvested, unless the administrator provides otherwise. If the administrator provides that dividends and distributions will be received and any such dividends or distributions are paid in cash they will be subject to the same provisions regarding forfeitability as the shares of common stock underlining the restricted stock award with respect to which they were paid and if dividends or distributions are paid in shares, the shares will be subject to the same restrictions on transferability and forfeitability as the shares with respect to which they were paid and, unless the administrator determines otherwise, the Company will hold such dividends until the restrictions on the shares with respect to which they were paid have lapsed. The administrator may impose (prior to grant) or remove (at any time) any restrictions on shares covered by an award of restricted stock.

Restricted Stock Units. Restricted stock units may be granted under the 2024 Plan. Restricted stock units are bookkeeping entries representing an amount equal to the fair market value of one share of the combined company's common stock. Subject to the provisions of the 2024 Plan, the administrator determines the terms and conditions of restricted stock units, including the vesting criteria (if any), the number of restricted stock units paid out and the form and timing of payment, which will be set out in the applicable award agreement. The administrator may set vesting criteria based upon the achievement of company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service), applicable federal or state securities laws or any other basis determined by the administrator in its sole discretion. The administrator may settle earned restricted stock units in the form of cash, in shares or in some combination thereof. In addition, the administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

Performance Awards. Performance awards may be granted under the 2024 Plan. Performance awards are awards that will result in a payment to a participant only if performance objectives established by the administrator are achieved or the awards otherwise vest. The administrator will specify any time period during which any performance objectives or other vesting provisions, if any, will be measured, and such other terms, as specified in the applicable award agreement. The administrator may set performance objectives based on the achievement of company-wide, divisional, business unit or individual goals (including, but not limited to, continued employment or service), applicable federal or state securities laws or any other basis determined by the administrator in its discretion. After the grant of a performance award, the administrator, may reduce or waive any performance objectives or other vesting provisions for such performance awards. Performance awards will have an initial value established by the administrator on or prior to the grant date. The administrator, in its sole discretion, may pay out earned performance awards in cash, shares, or in some combination thereof.

Outside Directors. All outside (non-employee) directors will be eligible to receive all types of awards (except for incentive stock options) under the 2024 Plan. To provide a maximum limit on the cash retainer fees and equity awards that can be made to outside directors, the 2024 Plan provides that in any given fiscal year, an outside director will not be granted cash retainer fees and equity awards with an aggregate value greater than $750,000 (increased to $1,000,000 in the fiscal year in connection with his or her initial service as an outside director), with the value of each equity award based on its grant date fair value as determined according to GAAP for purposes of this limit. Any cash compensation paid, or awards granted to an individual for his or her services as an employee or consultant (other than as an outside director) will not count toward this limit.

Non-Transferability of Awards. Unless the administrator provides otherwise, or otherwise required by applicable laws, an award may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the participant, only by the participant. If the administrator makes an award transferable, the award will be limited by any additional terms and conditions imposed by the administrator. Any unauthorized transfer of an award will be void.

Certain Adjustments. If any extraordinary dividend or other extraordinary distribution (whether in cash, shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, reclassification, repurchase, or exchange of shares or other securities of the combined company, other change in the corporate structure of the combined company affecting the shares of common stock, or any similar equity restructuring transaction, as that term is used in Statement of FASB ASC 718 (or any of its successors) affecting the shares of common stock occurs, to prevent diminution or enlargement of the benefits or potential benefits available under the 2024 Plan, the administrator will adjust the number and class of shares that may be delivered under the 2024 Plan and/or the number, class and price of shares covered by each outstanding award and the numerical share limits set forth in the 2024 Plan.

Dissolution or Liquidation. In the event of the combined company's proposed liquidation or dissolution, the administrator will notify participants prior to the effective date of the proposed transaction and, to the extent not previously exercised, all awards will terminate immediately prior to the consummation of such proposed action.

Merger or Change in Control. The 2024 Plan provides that in the event of a merger or change in control, as defined under the 2024 Plan, each outstanding award will be treated as the administrator determines, without a participant's consent, including providing that awards be continued by the successor corporation or a parent or subsidiary of the successor corporation (or an affiliate thereof) or that the vesting of any such awards may accelerate automatically upon consummation of a transaction. The administrator is not required to treat all awards, all awards held by a participant or all awards of the same type similarly. The administrator may take different actions with respect to the vested and unvested portions of an award. The administrator has the authority to modify awards in connection with a change in control or merger in a manner that causes the awards to lose their tax-preferred status, to terminate any right a participant has to exercise an option prior to vesting in the shares of common stock subject to the option, so that following the closing of the transaction the option may only be exercised to the extent it is vested; to reduce the exercise price subject to the award in a manner that is disproportionate to the increase in the number of shares of common stock subject to the award, as long as the amount that would be received upon exercise of the award immediately before and immediately following the closing of the transaction is equivalent and the adjustment complies with applicable laws; and to suspend a participant's right to exercise an option during a limited period of time preceding and or following the closing of the transaction without participant's consent if such suspension is administratively necessary or advisable to permit the closing of the transaction.

If a successor corporation does not continue an award, or some portion of such award, then the participant will fully vest in and have the right to exercise all of his or her outstanding options and stock appreciation rights, all restrictions on restricted stock and restricted stock units will lapse, and for awards with performance-based vesting, unless specifically provided for otherwise under the applicable award agreement or other agreement or policy applicable to the participant, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and all other terms and conditions met. If an option or stock appreciation right is not assumed or substituted in the event of a change in control, the administrator will notify the participant in writing or electronically that such option or stock appreciation right will be exercisable for a period of time determined by the administrator in its sole discretion and the option or stock appreciation right will terminate upon the expiration of such period. For awards granted to an outside director, in the event of a change in control, the outside director will fully vest in and have the right to exercise all of his or her outstanding options and stock appreciation rights, all restrictions on restricted stock and restricted stock units will lapse and, for awards with performance-based vesting, unless specifically provided for otherwise under the applicable award agreement or other agreement or policy applicable to the participant, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and all other terms and conditions met.

Clawback. All awards under the 2024 Plan will be subject to recoupment under any clawback policy that the combined company is required to adopt pursuant to the listing standards of any national securities exchange or association on which the combined company's securities are listed or as is otherwise required by the Dodd-Frank Wall Street Reform and Consumer Protection Act or other applicable laws. The administrator may impose other clawback, recovery or recoupment provisions in an award agreement as the administrator determines necessary or appropriate, including without limitation to any reacquisition right regarding previously acquired shares of the combined company's common stock or other cash or property. The administrator may specify in an award agreement that a participant's rights, payments, and benefits with respect to an award will be subject to reduction,

cancellation, forfeiture, or recoupment upon the occurrence of specified events, in addition to any otherwise applicable vesting or performance conditions of an award.

Effective Date; Amendment; Termination. The 2024 Plan became effective date on March 21, 2024. The administrator, in its sole discretion, has the authority to amend, alter, suspend or terminate the 2024 Plan, or any part thereof, at any time and for any reason, provided that a participant's rights will not be materially impaired without signed, written agreement authorized by the administrator between the participant and the Company. The Company will obtain stockholder approval of any plan amendment to the extent necessary or desirable to comply with applicable laws. Termination of the 2024 Plan will not affect the administrator's ability to exercise the powers granted to it regarding awards granted under the 2024 Plan prior to such termination. The 2024 Plan will continue in effect until terminated pursuant its terms, but (i) no incentive stock options may be granted after 10 years from the earlier of the Graphite board or stockholder approval of the 2024 Plan and (ii) the automatic share reserve increase will operate only until the tenth anniversary of the earlier of the Graphite board or stockholder approval of the 2024 Plan.

2024 Employee Stock Purchase Plan

The following is a summary of the principal features of our 2024 Employee Stock Purchase Plan (the "2024 ESPP") and its operation.

Purpose. The purpose of the 2024 ESPP is to provide eligible employees with an opportunity to purchase shares of the combined company's common stock through accumulated contributions, which generally will be made through payroll deductions. The 2024 ESPP permits the administrator (as discussed below) to grant purchase rights that qualify for preferential tax treatment under Section 423 of the Code. In addition, the 2024 ESPP authorizes the grant of purchase rights that do not qualify under Code Section 423 pursuant to rules, procedures or sub-plans adopted by the administrator that are designed to achieve desired tax or other objectives.

Authorized Shares. Subject to adjustment upon certain changes in the Company's capitalization as described in the 2024 ESPP, the maximum number of shares of common stock that will be available for issuance under the 2024 ESPP will be 250,995 shares. The shares may be authorized, but unissued, or reacquired common stock. The number of shares of common stock available for issuance under the 2024 ESPP will be increased on the first day of each fiscal year beginning for the fiscal year following the fiscal year in which the first enrollment date under the 2024 ESPP (if any) occurs, in an amount equal to the least of (i) 376,493 shares, (ii) one percent (1%) of the outstanding shares of common stock on the last day of the immediately preceding fiscal year, or (iii) an amount determined by the administrator.

We currently are unable to determine how long this share reserve may last because the number of shares that will be issued in any year or offering period depends on a variety of factors that cannot be predicted with certainty, including, for example, the number of employees who elect to participate in the 2024 ESPP, the level of contributions made by participants and the future price of shares of common stock.

Plan Administration. The board of directors or a committee appointed by the board of directors will administer the 2024 ESPP. The compensation committee will initially administer the 2024 ESPP. Subject to the terms of the 2024 ESPP, the administrator will have full and exclusive discretionary authority to construe, interpret and apply the terms of the 2024 ESPP, to delegate ministerial duties to any of the combined company's employees, to designate separate offerings under the 2024 ESPP, to designate subsidiaries and affiliates as participating in the Section 423 Component and the Non-Section 423 Component, to determine eligibility, to adjudicate all disputed claims filed under the 2024 ESPP and to establish such procedures that it deems necessary or advisable for the administration of the 2024 ESPP. The administrator is authorized to adopt rules and procedures in order to: determine eligibility to participate, determine the definition of compensation for the purposes of contributions to the 2024 ESPP, handle contributions to the 2024 ESPP, coordinate the making of contributions to the 2024 ESPP, establish bank or trust accounts to hold contributions to the 2024 ESPP, effect the payment of interest, effect the conversion of local currency, satisfy obligations to pay payroll tax, determine beneficiary designation requirements, implement and determine withholding procedures and determine procedures for the handling of stock certificates that vary with applicable local requirements. The administrator will also be authorized to determine that, to the extent permitted by

applicable law, the terms of a purchase right granted under the 2024 ESPP or an offering to citizens or residents of a non-U.S. jurisdiction will be less favorable than the terms of options granted under the 2024 ESPP or the same offering to employees that reside solely in the United States. Every finding, decision and determination made by the administrator will, to the full extent permitted by law, be final and binding upon all parties.

Eligibility. Generally, all of the combined company's employees will be eligible to participate if they are customarily employed by us, or any participating subsidiary or affiliate, for at least 20 hours per week and more than five months in any calendar year, or any lesser number of hours per week and/or number of months in any calendar year established by the administrator (if required under applicable local law) for purposes of any separate offering or the Non-Section 423 component. The administrator, in its discretion, on a uniform and nondiscriminatory basis, may, prior to an enrollment date, for all options to be granted on such enrollment date in an offering, determine that an employee who (i) has not completed at least two years of service (or a lesser period of time determined by the administrator) since his or her last hire date, (ii) customarily works not more than 20 hours per week (or a lesser period of time determined by the administrator), (iii) customarily works not more than five months per calendar year (or a lesser period of time determined by the administrator), (iv) is a highly compensated employee within the meaning of Section 414(q) of the Code, or (v) is a highly compensated employee within the meaning of Section 414(q) of the Code with compensation above a certain level or is an officer or subject to disclosure requirements under Section 16(a) of the Exchange Act, is or is not eligible to participate in such offering period.

However, an employee may not be granted rights to purchase shares of the combined company's common stock under the 2024 ESPP if such employee:

- immediately after the grant would own capital stock and/or hold outstanding options to purchase such stock possessing 5% or more of the total combined voting power or value of all classes of capital stock of ours or of any parent or subsidiary of ours; or
- holds rights to purchase shares of the combined company's common stock under all employee stock purchase plans of ours or any parent or subsidiary of ours that accrue at a rate that exceeds $25,000 worth of shares of the combined company's common stock for each calendar year in which such rights are outstanding at any time.

Offering Periods. The 2024 ESPP will include a component that allows the Company to make offerings intended to qualify under Section 423 of the Code and a component that allows the Company to make offerings not intended to qualify under Section 423 of the Code to designated companies, as described in the 2024 ESPP. Offering periods will begin and end on such dates as established by the administrator (including the commencement and termination dates thereof) without stockholder approval if such change is announced prior to an enrollment date for all purchase rights to be granted on such enrollment date. No offering period may last more than 27 months.

Contributions. The 2024 ESPP will permit participants to purchase shares of the combined company's common stock through contributions (in the form of payroll deductions or otherwise to the extent permitted by the administrator) of up to 15% of their eligible compensation, a measure to be determined by the administrator, or such other limit established by the administrator from time to time in its discretion and on a uniform and nondiscretionary basis for all options to be granted on an enrollment date in an offering.

Exercise of Purchase Right. A participant's option for the purchase of shares of common stock will be exercised automatically on each exercise date, unless a participant withdraws from the 2024 ESPP (or participant's participation is terminated), and the maximum number of full shares of the combined company's common stock subject to the option will be purchased for such participant at the applicable purchase price with the accumulated contributions from his or her account. No fractional shares of common stock will be purchased. Any contributions accumulated in a participant's account, which are not sufficient to purchase a full share will be retained in the participant's account for the next purchase period or offering period and will be subject to earlier withdrawal by the participant. Any other funds left over in a participant's account after the exercise date will be returned to the participant. The Administrator may, for future offering periods, increase or decrease, in its absolute discretion, the maximum number of shares of common stock that an eligible employee may purchase during each purchase period and/or offering period, as applicable.

Termination of Participation. Participation in the 2024 ESPP generally will terminate when a participating employee's employment with the combined company or a designated company ceases for any reason, the employee withdraws from the 2024 ESPP or the combined company's board terminates or amends the 2024 ESPP such that the employee no longer is eligible to participate. An employee may withdraw his or her participation in the 2024 ESPP at any time in accordance with procedures, and prior to any applicable deadline, specified by the administrator. Upon withdrawal from the 2024 ESPP, in general the employee will receive all amounts credited to his or her account without interest (unless otherwise required under applicable law) and his or her payroll withholdings or contributions under the 2024 ESPP will cease.

Non-Transferability. Neither contributions credited to a participant's account nor rights to purchase shares of common stock and any other rights and interests under the 2024 ESPP may be assigned, transferred, pledged or otherwise disposed of (other than by will, the laws of descent and distribution or beneficiary designation in the event of death). Any attempt at such prohibited disposition will be without effect, except that the combined company may treat such act as an election to withdraw participation.

Certain Transactions. In the event that any extraordinary dividend or other extraordinary distribution (whether in cash, shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, reclassification, repurchase, or exchange of shares of common stock or other securities, or other change in the combined company's corporate structure affecting the common stock or any similar equity restructuring transaction, as that term is used in Statement of FASB ASC Topic 718 (or any of its successors) affecting the shares of common stock occurs, the administrator, in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the 2024 ESPP in such manner it may deem equitable, will adjust the number and class of common stock that may be delivered under the 2024 ESPP, the purchase price per share, the number of shares of common stock covered by each purchase right under the 2024 ESPP that has not yet been exercised, and the numerical limits of the 2024 ESPP.

In the event of the Company's proposed dissolution or liquidation, any ongoing offering periods will be shortened and will terminate immediately before consummation of the proposed dissolution or liquidation following the purchase of shares of common stock under the shortened offering periods, unless provided otherwise by the administrator. Prior to the new exercise date, the administrator will notify participants regarding the new exercise date and the exercise to occur on such date.

In the event of a merger or "change in control" (as defined in the 2024 ESPP), each outstanding option under the 2024 ESPP will be assumed or substituted for by the successor corporation or its parent or subsidiary. In the event that options are not assumed or substituted for, the offering period will be shortened by setting a new exercise date on which the offering period will end, which will occur prior to the closing of the merger or change in control. Prior to the new exercise date, the administrator will notify participants regarding the new exercise date and the exercise to occur on such date.

Amendment; Termination. The administrator will have the authority to amend, suspend or terminate the 2024 ESPP. The 2024 ESPP will continue in effect for a term of 20 years, unless terminated sooner. If the administrator determines that the ongoing operation of the 2024 ESPP may result in unfavorable financial accounting consequences, the administrator may modify, amend or terminate the 2024 ESPP to reduce or eliminate such accounting consequence. If the 2024 ESPP is terminated, the administrator in its discretion may terminate all outstanding offering periods either immediately or after consummation of the purchase of shares of common stock under the 2024 ESPP (which may be adjusted to occur sooner than originally scheduled), or in accordance with their terms. If options are terminated prior to their expiration, then all amounts credited to participants that have not been used to purchase shares of common stock will be returned, without interest (unless otherwise required under applicable law), as soon as administratively practicable.

Director Compensation

Prior to the Merger, LENZ OpCo had no formal policy under which non-employee directors received compensation for their service on the LENZ OpCo board of directors or its committees. LENZ OpCo's policy was to reimburse non-employee directors for reasonable and necessary out-of-pocket expenses incurred in connection with

attending board and committee meetings or performing other services in their capacities as non-employee directors, and LENZ OpCo occasionally granted stock options to non-employee directors.

Director Compensation Table

The table below summarizes the compensation of each person who served as a LENZ OpCo non-employee director for the year ended December 31, 2023. Evert Schimmelpennink, LENZ OpCo's Chief Executive Officer, did not receive any additional compensation for his service as a director in 2023. The compensation of Mr. Schimmelpennink as a LENZ OpCo named executive officer is set forth above in this section in the Summary Compensation Table.

Name and principal position	Option awards ($)[1]	Total ($)
Frederic Guerard, PharmaD.	121,706	121,706
James McCollum	—	—
Clare Ozawa, Ph.D.	—	—
Zach Scheiner, Ph.D.	—	—
Chris Dimitropoulos	—	—
Stefan Larson, Ph.D.	—	—
Shelley Thunen	—	—

(1) In accordance with SEC rules, this column reflects the aggregate grant date fair value of the stock option awards granted during 2023, computed in accordance with FASB ASC Topic 718, Compensation—Stock Compensation. The assumptions used in calculating the grant date fair value of the awards disclosed in this column are set forth in Note 10 to LENZ's audited financial statements included elsewhere in this prospectus. These amounts do not reflect the actual economic value that will be realized by the non-employee director upon the vesting of the stock options, the exercise of the stock options, or the sale of the common stock underlying such stock options.

The following table lists all outstanding option awards held by non-employee directors as of December 31, 2023. None of LENZ OpCo's non-employee directors held any outstanding stock awards as of December 31, 2023.

Name	Number of Shares Underlying Outstanding Options[1]
Frederic Guerard, Pharm.D.	54,468
James McCollum	95,034
Clare Ozawa, Ph.D.	—
Zach Scheiner, Ph.D.	—
Chris Dimitropoulos	—
Stefan Larson, Ph.D.	—
Shelley Thunen	—

(1) The number of shares subject to each award reflect all changes as a result of our capitalization adjustments in connection with the Merger.

Recent Stock Option Grants

On March 21, 2024, pursuant to the Outside Director Compensation Policy (as defined below), each individual who was a non-employee director as of such date, was granted an award of stock options to purchase 27,000 shares of Common Stock. Each of the options were granted under the 2024 Equity Incentive Plan and the form of option agreement thereunder and has a per share exercise price of $15.05. The shares subject to the option vest in equal monthly installments over the thirty-six (36) months following March 21, 2024, on the same day of each relevant month, in each case subject to the non-employee director continuing to be a non-employee director through the applicable vesting date.

Director Compensation Policy

Our board of directors expects to review director compensation periodically to ensure that director compensation remains competitive such that we are able to recruit and retain qualified directors. In 2023, the compensation committee of the LENZ OpCo board of directors retained Aon, a third-party compensation consultant, to provide the LENZ OpCo board of directors and its compensation committee with an analysis of publicly available market data regarding practices and compensation levels at comparable companies and assistance in determining compensation to be provided to New LENZ's non-employee directors. Based on the discussions with and assistance from the compensation consultant, in connection with the Merger, our board of directors adopted an Outside Director Compensation Policy that provides for certain compensation to our non-employee directors. The Outside Director Compensation Policy became effective as of the Closing.

Cash Compensation

The Outside Director Compensation Policy provides for the following cash compensation program for our non-employee directors:

- $40,000 per year for service as a non-employee director;
- $30,000 per year for service as non-employee chair of our board of directors;
- $15,000 per year for service as chair of our audit committee;
- $7,500 per year for service as a member of our audit committee;
- $12,000 per year for service as chair of our compensation committee;
- $6,000 per year for service as a member of our compensation committee;
- $10,000 per year for service as chair of our nominating and corporate governance committee; and
- $5,000 per year for service as a member of our nominating and corporate governance committee.

Each non-employee director who serves as a committee chair of our board of directors receives the cash retainer fee as the chair of the committee but not the cash retainer fee as a member of that committee, provided that the non-employee director who serves as the non-employee chair of our board of directors receives the annual retainer fees for such role as well as the annual retainer fee for service as a non-employee director. These fees to our non-employee directors are paid quarterly in arrears on a prorated basis. The above-listed fees for service as non-employee chair of our board of directors or a chair or member of any committee are payable in addition to the non-employee director retainer. Under our Outside Director Compensation Policy, we also reimburse our non-employee directors for reasonable travel expenses to attend meetings of our board of directors and its committees.

Equity Compensation

Following the Transactions, pursuant to the Outside Director Compensation Policy, each individual who was a non-employee director as of the effective date of the policy was granted an award of stock options to purchase 27,000 shares of Common Stock (the "Merger Award"). The Merger Award was granted automatically on March 21, 2024. Each Merger Award is scheduled to vest in equal monthly installments over the next thirty-six (36) months on the same day of each relevant month as the applicable vesting date, in each case subject to the non-employee director continuing to be a non-employee director through the applicable vesting date.

The Outside Director Compensation Policy also provides that, each individual who first becomes a non-employee director following the effective date of the policy and who does not receive a Merger Award will be granted an award of stock options to purchase 27,000 shares of Common Stock, with such number of shares subject to equitable adjustment by the board of directors in the event of a capitalization adjustment (the "Initial Award"). The Initial Award will be granted automatically on the first trading day on or after the date on which such individual first becomes a non-employee director (the first date as a non-employee director, the "Initial Start Date"), whether

through election by LENZ stockholders or appointment by the board of directors to fill a vacancy. Each Initial Award will be scheduled to vest in equal monthly installments over the next thirty-six (36) months following the Initial Start Date on the same day of each relevant month as the applicable Initial Start Date, in each case subject to the non-employee director continuing to be a non-employee director through the applicable vesting date.

On the first trading day immediately following each annual meeting of our stockholders following the Merger (each, an "Annual Meeting"), each non-employee director automatically will be granted an award of stock options (an "Annual Award") to purchase 13,500 shares of Common Stock, with such number of shares subject to equitable adjustment by the board of directors in the event of a capitalization adjustment; provided that the first Annual Award granted to an individual who first becomes a non-employee director following the effective date of the policy will cover a number of shares equal to the product of (A) 13,500 multiplied by (B) a fraction, (i) the numerator of which is the number of fully completed months between the applicable Initial Start Date and the date of the first Annual Meeting to occur after such individual first becomes a non-employee director, and (ii) the denominator of which is twelve (12), subject to equitable adjustment by the board of directors in the event of a capitalization adjustment. Each Annual Award will be scheduled to vest in full on the first anniversary of the date on which the Annual Award is granted, in each case subject to the non-employee director continuing to be a non-employee director through the applicable vesting date.

In the event of a change in control, each non-employee director will fully vest in his or her outstanding equity awards granted under the contemplated policy as of immediately prior to the change in control, including any Merger Awards, Initial Awards and Annual Awards, provided that the non-employee director continues to be a non-employee director through the date of the change in control.

The aggregate amount of compensation, including both equity compensation and cash compensation, paid to any non-employee director of the combined company for services as a director in a calendar year period will not exceed $1,000,000 in the first calendar year such individual becomes a non-employee director and $750,000 in any other calendar year.

The company will reimburse all reasonable out-of-pocket expenses incurred by directors for their attendance at meetings of the board or any committee thereof.

Employee directors of the company will not receive any additional compensation for their service as a director.

CERTAIN RELATIONSHIPS, RELATED PARTY AND OTHER TRANSACTIONS

Described below are any transactions occurring since January 1, 2022 and any currently proposed transactions to which we or either of Graphite or LENZ OpCo was a party and in which:

- the amounts involved exceeded or will exceed the lesser of $120,000 or 1% of the average of our, Graphite or LENZ OpCo's total assets, as applicable, at year-end for the last two completed fiscal years; and
- a director, executive officer, holder of more than 5% of the outstanding capital stock of us, Graphite or LENZ OpCo, or any member of such person's immediate family had or will have a direct or indirect material interest.

Certain Relationships and Related Person Transactions—Graphite

License and Option to Acquire Nula-Cel Assets

On August 4, 2023, Graphite entered into a license and option agreement ("LOA") with Kamau Therapeutics, Inc. ("Kamau") pursuant to which it exclusively licensed to Kamau, and granted Kamau, an option to acquire certain intellectual property and materials related to its nula-cel program and related pre-clinical platform assets. The option includes rights to assume the License Agreement and the First Option Agreement with Stanford, as well as the IDT License Agreement, among other agreements. Exercise of the option is contingent on Kamau raising a minimum of $10 million in funds no later than August 4, 2024 (the "Financing Milestone"), which contingency may be waived by Graphite. All rights to the intellectual property and materials will revert to Graphite if the milestone is not achieved or if Kamau elects not to exercise the option. In return for this license and option, Graphite received an equity interest in Kamau representing 20% of all outstanding shares on a fully diluted basis subject to dilution protection until the Financing Milestone. The LOA includes customary representations and warranties, limitations of liability and indemnification obligations for a transaction of this nature. The LOA automatically expires upon the first to occur of: (1) Kamau's exercise of the option, (2) Kamau's failure to exercise the option within a specified exercise period following achievement of the financing milestone, or (3) Kamau's failure to achieve the financing milestone by a pre-agreed deadline. In addition, either party has the right to terminate the LOA for the uncured material breach or insolvency of the other party, and Graphite has the right to terminate the LOA if Kamau challenges any of the patent rights that are subject to the option. As a result of the 20% equity interest, Graphite has the ability to exert significant influence over Kamau and accounts for the interest as an equity method investment. Graphite records its proportionate share of investee's equity in earnings or losses based on the most recently available financial information. Dr. Porteus, a director and stockholder of Graphite, is the founder and chief executive officer of Kamau.

On September 12, 2023, Graphite and Kamau entered into an amendment to the LOA, under which Graphite agreed to assign certain contracts to Kamau prior to exercise of the option. On March 20, 2024, Kamau and Graphite executed a Patent and Trademark Assignment agreement reflecting Kamau's exercise of the option.

The 20% equity interest in the counterparty had minimal value upon execution of the LOA and Graphite did not record any amount related to the equity interest as of September 30, 2023. As of December 31, 2023, Kamau has not achieved the financial milestone and does not have the right to exercise the option.

Sale of Non-Genotoxic Targeted Conditioning Technology Assets

On August 1, 2023, Graphite entered into an asset purchase agreement ("APA") with Maro Bio Inc. ("Maro") pursuant to which Graphite sold to Maro, concurrently with the execution of the APA, certain assets related to its non-genotoxic conditioning technology in exchange for upfront consideration of $0.5 million. Maro was formed by Samsara BioCapital and funds affiliated with Versant Ventures, both of which are greater than 5% stockholders of Graphite. Additional consideration included certain contingent milestone payments totaling up to approximately $1.0 million in the aggregate, and potential fees upon the completion of certain transactions by the acquirer. The APA also provided for reimbursement of certain research and development amounts incurred prior to closing of approximately $0.6 million as well as certain transition services to be provided by Graphite to Maro. Under the APA, Maro will also pay us a sub single digit percentage cash royalty of worldwide net sales of certain products

incorporating the acquired technology. The royalty term will terminate on a product-by-product and country-by-country basis on the latest of (i) the ten (10) year anniversary of the first commercial sale of such product in such country, (ii) the expiration of the last-to-expire valid claim of a transferred patent that covers such product in such country, and (iii) the expiration of regulatory exclusivity with respect to such product in such country. The APA also includes customary representations and warranties, covenants and indemnification obligations for a transaction of this nature.

The disposal of certain assets sold pursuant to the APA was accounted for as a deconsolidation of a subsidiary or group of assets in accordance with ASC 810. During the three and nine months ended September 30, 2023, Graphite recognized a loss on disposal of $0.1 million, which was recorded in other income. Graphite will record amounts related to the contingent milestone payments, royalties, and potential transaction fees when contingencies are resolved and amounts are due in accordance with ASC 450. No contingencies were resolved and recorded as of September 30, 2023.

PIPE Financing

On November 14, 2023, in connection with the execution of the Merger Agreement, Graphite entered into the Subscription Agreement with the PIPE Investors. Pursuant to the Subscription Agreement, immediately following the Effective Time, the PIPE investors subscribed for and purchased an aggregate of 3,559,565 shares of Common Stock at a price of $15.0299 per share for aggregate gross proceeds of approximately $53.5 million. The table below sets forth the number of shares of Common Stock purchased by related party holders in the PIPE Financing:

Participant	Shares of Common Stock	Total Purchase Price ($)
Entities affiliated with RA Capital[(1)]	998,009	$ 14,999,975.48
Alpha Wave Ventures II, LP[(2)]	898,209	$ 13,499,991.45
Sectoral Asset Management Inc.[(3)]	332,670	$ 4,999,996.84
McCollum Living Trust[(4)]	16,633	$ 249,992.33

(1) Zach Scheiner, a member of the LENZ board of directors, is an affiliate of RA Capital.
(2) Chris Dimitropoulos, a member of LENZ OpCo's board of directors until immediately prior to the Effective Time, is an affiliate of Alpha Wave Ventures II, LP.
(3) Stefan Larson, a member of LENZ OpCo's board of directors until immediately prior to the Effective Time, is a partner at Sectoral Asset Management Inc.
(4) James McCollum, a member of the LENZ board of directors, is the trustee of the McCollum Living Trust.

In connection with the Subscription Agreement, Graphite entered into a registration rights agreement, contemporaneously with the sale of shares pursuant to the PIPE Financing, with the PIPE investors pursuant to which Graphite agreed to prepare and file a registration statement with the SEC within 10 days after the closing of the PIPE Financing for the purposes of registering the resale of the shares. Graphite also agreed, among other things, to indemnify the PIPE Investors, their officers, directors, members, employees and agents, successors and assigns under the registration statement from certain liabilities and pay all fees and expenses (excluding any legal fees of the selling holder(s), and any underwriting discounts and selling commissions) incidents to Graphite's obligations under the registration rights agreement.

Support Agreements Under the Merger

Concurrently with the execution of the Merger Agreement, (i) certain Graphite stockholders entered into the Graphite Support Agreements with Graphite and LENZ to vote all of their shares of Graphite common stock in favor of the proposals relating to the Transactions, and (ii) certain LENZ OpCo stockholders entered into the LENZ Op Co Support Agreements with LENZ OpCo and to vote all of their shares of LENZ OpCo capital stock in favor of the Merger Agreement and the related contemplated transactions and against any alternative acquisition proposals.

Lock-Up Agreements

Concurrently with the execution of the Merger Agreement, certain executive officers, directors and stockholders of Graphite and LENZ OpCo entered into the Lock-Up Agreements with Graphite, pursuant to which such parties

agreed not to, except in limited circumstances, sell or transfer their shares of Graphite common stock, for the 90-day period following the closing.

Graphite Indemnification Agreements

Graphite has entered into agreements, and in the future plans to enter into, agreements to indemnify its directors and executive officers. These agreements, among other things, require Graphite to indemnify these individuals for certain expenses (including attorneys' fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in Graphite's right, on account of any services undertaken by such person on behalf of Graphite or that person's status as a member of the Graphite board of directors to the maximum extent allowed under Delaware law.

Certain Relationships and Related Person Transactions—LENZ OpCo

Private Placements of Securities

Series A Preferred Stock Financing

In October 2020, LENZ OpCo issued and sold an aggregate of 814,495 shares of its Series A Preferred Stock at a purchase price of $2.15 per share for an aggregate purchase price of approximately $1.75 million, including $0.25 million pursuant to the conversion of convertible notes. In October 2020, LENZ OpCo issued warrants to purchase 814,495 shares of its Series A Preferred Stock with an exercise price of $2.15 per share (the "Series A Warrants"). In April 2021, LENZ OpCo issued and sold an aggregate of 11,263,447 shares of its Series A Preferred Stock at a purchase price of $2.15 per share for an aggregate purchase price of approximately $24.22 million. In October 2022, LENZ issued and sold an aggregate of 9,899,340 additional shares of its Series A Preferred Stock at a purchase price of $2.15 per share for an aggregate purchase price of approximately $21.28 million.

Purchasers of LENZ OpCo's Series A Preferred Stock included certain of its directors and holders of more than 5% of its capital stock at the time of the financing (or subsequent closings of such financing). The following table presents the number of shares and the total purchase price paid by these entities.

Investor	Shares of Series A Preferred Stock	Total Purchase Price	Series A Warrants
McCollum Living Trust[1]	132,521	$ 284,920	32,521
Entities affiliated with RA Capital[2]	10,697,674	$ 23,000,000	348,837
Entities affiliated with Versant Ventures[3]	10,697,674	$ 23,000,000	348,837

(1) James McCollum, a member of the LENZ board of directors, is the trustee of the McCollum Living Trust.
(2) Zach Scheiner, a member of the LENZ board of directors, is an affiliate of RA Capital.
(3) Clare Ozawa, a member of LENZ OpCo's board of directors until immediately prior to the Effective Time, is an affiliate of Versant Ventures.

The number of shares and purchase price per share set forth above are prior to giving effect to the exchange in accordance with the Merger Agreement.

Series B Preferred Stock Financing

In March 2023, LENZ issued and sold an aggregate of 28,019,181 shares of its Series B Preferred Stock at a purchase price of $2.9801 per share for an aggregate purchase price of approximately $83.5 million.

Purchasers of LENZ's Series B Preferred Stock included certain of its directors and holders of more than 5% of its capital stock at the time of the financing. The following table presents the number of shares and the total purchase price paid by these entities:

Investor	Shares of Series B Preferred Stock	Total Purchase Price
Alpha Wave Ventures II, LP[1]	13,422,368	$ 39,999,999
Point72 Biotech Private Investments, LLC-Series LT	5,033,388	$ 15,000,000
Entities affiliated with RA Capital[2]	5,033,388	$ 15,000,000
Entities affiliated with Versant Ventures[3]	167,779	$ 499,998
McCollum Living Trust[4]	167,779	$ 499,998
Entities affiliated with RTW	167,779	$ 499,998

(1) Chris Dimitropoulos, a member of the LENZ board of directors, is an affiliate of Alpha Wave Ventures II, LP.
(2) Zach Scheiner, a member of the LENZ board of directors, is an affiliate of RA Capital.
(3) Clare Ozawa, a member of the LENZ board of directors, is an affiliate of Versant Ventures.
(4) James McCollum, a member of the LENZ board of directors, is the trustee of the McCollum Living Trust.

The number of shares and purchase price per share set forth above are prior to giving effect to the exchange in accordance with the Merger Agreement.

Investors' Rights Agreement

LENZ OpCo was a party to an amended and restated investors' rights agreement with certain holders of its capital stock, including Alpha Wave Ventures II, LP, Point72 Biotech Private Investments, LLC-Series LT, entities affiliated with Versant Ventures and entities affiliated with RA Capital. Under LENZ OpCo's amended and restated investors' rights agreement, certain holders of its capital stock had the right to demand that LENZ OpCo file a registration statement or request that their shares of LENZ OpCo capital stock be covered by a registration statement that LENZ OpCo was otherwise filing. LENZ OpCo's amended and restated investors' rights agreement terminated in connection with the closing.

Voting Agreement

LENZ OpCo was a party to an amended and restated voting agreement, as amended, with certain holders of its capital stock, including, among others, Evert Schimmelpennink, its President, Chief Executive Officer and a member of its board of directors, Shawn Olsson, its Chief Commercial Officer, James McCollum, a member of its board of directors, Marc Odrich, its Chief Medical Officer, Alpha Wave Ventures II, LP, Point72 Biotech Private Investments, LLC-Series LT, entities affiliated with Versant Ventures and entities affiliated with RA Capital. The parties to the voting agreement agreed, subject to certain conditions, to vote the shares of LENZ OpCo capital stock held by them so as to maintain the size of the board of directors at eight (8) and to elect certain nominees to the board of directors.

Upon the Closing, the obligations of the parties to the voting agreement to vote their shares so as to elect these nominees, as well as the other rights and obligations under this agreement, terminated and none of the LENZ OpCo stockholders have any special rights regarding the nomination, election or designation of members of the board of directors of New LENZ pursuant to such agreement.

LENZ OpCo Indemnification Agreements and Insurance

LENZ OpCo has entered, and intends to continue to enter, into separate indemnification agreements with each of its directors and executive officers, in addition to the indemnification provided for in its certificate of incorporation and bylaws. The indemnification agreements and its certificate of incorporation and bylaws generally require LENZ to indemnify its directors, executive officers and certain controlling persons to the fullest extent permitted by Delaware law.

LENZ OpCo Policies for Approval of Related Party Transactions

LENZ OpCo did not have a written policy regarding the review and approval of related person transactions. Nevertheless, with respect to such transactions, it had been the practice of the LENZ OpCo board of directors to consider the nature of and business reasons for such transactions, how the terms of such transactions compared to those which might be obtained from unaffiliated third parties and whether such transactions were otherwise fair to and in the best interests of, or not contrary to, LENZ OpCo's best interests.

Our Policies and Procedures for Related Party Transactions

Our board of directors has adopted a written Related Person Transactions Policy that sets forth our policies and procedures regarding the identification, review, consideration and oversight of "related person transactions." For purposes of our policy only, a "related person transaction" is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we or any of our subsidiaries are participants involving an amount that exceeds $120,000, in which any "related person" has a material interest.

Transactions involving compensation for services provided to us as an employee, consultant or director will not be considered related person transactions under this policy. A related person is any executive officer, director, nominee to become a director or a holder of more than 5% of any class of our voting securities (including our Common Stock), including any of their immediate family members and affiliates, including entities owned or controlled by such persons.

Under the policy, the related person in question or, in the case of transactions with a holder of more than 5% of any class of our voting securities, an officer with knowledge of a proposed transaction, must present information regarding the proposed related person transaction to our audit committee (or, where review by our audit committee would be inappropriate, to another independent body of our board of directors) for review. To identify related person transactions in advance, we will rely on information supplied by our executive officers, directors and certain significant stockholders. In considering related person transactions, our audit committee will take into account the relevant available facts and circumstances, which may include, but are not limited to:

- the risks, costs, and benefits to us;
- the impact on a director's independence in the event the related person is a director, immediate family member of a director or an entity with which a director is affiliated;
- the terms of the transaction;
- the availability of other sources for comparable services or products; and
- the terms available to or from, as the case may be, unrelated third parties.

Our audit committee will approve only those transactions that it determines are fair to us and in our best interests. All of the transactions described above were entered into prior to the adoption of such policy.

PRINCIPAL SECURITYHOLDERS

The following table sets forth information regarding the beneficial ownership of Common Stock as of March 21, 2024 by:

- each person known by New LENZ to be the beneficial owner of more than 5% of New LENZ's outstanding Common Stock immediately following the consummation of the Merger;
- each of New LENZ's executive officers and directors; and
- all of New LENZ's executive officers and directors as a group after the consummation of the Merger.

Beneficial ownership is determined according to the rules of the SEC, which generally provide that a person has beneficial ownership of a security if he, she or it possesses sole or shared voting or investment power over that security. Under those rules, beneficial ownership includes securities that the individual or entity has the right to acquire, such as through the exercise of stock options, within 60 days of March 21, 2024. Shares subject to warrants and options that are currently exercisable or exercisable within 60 days of March 21, 2024 are considered outstanding and beneficially owned by the person holding such options for the purpose of computing the percentage ownership of that person but are not treated as outstanding for the purpose of computing the percentage ownership of any other person. Except as noted by footnote, and subject to community property laws where applicable, based on the information provided to New LENZ, New LENZ believes that the persons and entities named in the table below have sole voting and investment power with respect to all shares shown as beneficially owned by them. Unless otherwise noted, the business address of each of the directors and executive officers of New LENZ is 445 Marine View Ave., Ste. #320, Del Mar, CA 92014. The percentage of beneficial ownership of New LENZ is calculated based on 25,534,458 shares of Common Stock outstanding as of March 21, 2024.

Name of Beneficial Owners	Number of Shares	%
Greater than 5% Stockholders		
Alpha Wave Ventures II, LP[(1)]	3,612,211	14.1 %
Entities affiliated with Point72 Asset Management[(2)]	1,882,693	7.4 %
Entities affiliated with RA Capital Management[(3)]	4,249,356	16.6 %
Entities affiliated with Versant Management[(4)]	4,612,684	18.0 %
Executive Officers and Directors		
Evert Schimmelpennink[(5)]	785,693	3.0 %
Shawn Olsson[(6)]	149,355	*
Marc Odrich[(7)]	166,071	*
Daniel Chevallard	—	—
Frederic Guerard[(8)]	37,772	*
James McCollum[(9)]	595,842	2.3 %
Zach Scheiner[(10)]	4,249,356	16.6 %
Shelley Thunen	—	—
Jeff George	—	—
Kimberlee C. Drapkin[(11)]	5,714	*
All directors and executive officers as a group (10 persons)[(12)]	5,989,803	22.5 %

* Less than 1%

(1) Consists of (i) 2,714,002 shares of Common Stock received by Alpha Wave Ventures II, LP in the Merger as an equityholder of record of LENZ OpCo, and (ii) 898,209 shares of Common Stock purchased by Alpha Wave Ventures II, LP in the PIPE Financing. Alpha Wave Ventures GP, Ltd is the general partner of Alpha Wave Ventures II, LP and therefore may be deemed to have beneficial ownership over these shares. The address of Alpha Wave Ventures GP, Ltd is 667 Madison Ave, 19th Floor, New York, New York 10065.

(2) Consists of (i) 1,017,751 shares of Common Stock received by Point72 Biotech Private Investments, LLC – Series LT ("Point72 Biotech") in the Merger as an equityholder of LENZ OpCo, and (ii) 864,942 shares of Common Stock purchased by Point72 Associates, LLC ("Point72 Associates") in the PIPE Financing. Differentiated Ventures Investments, LLC ("Differentiated Ventures"), a Delaware limited

liability company, is the managing member of Point72 Biotech and may be deemed to share beneficial ownership of the shares held by Point72 Biotech. 72 Investment Holdings, LLC ("72 Investment Holdings"), a Delaware limited liability company, is the sole member of Differentiated Ventures and may be deemed to share beneficial ownership of the shares of which Differentiated Ventures may be deemed to share beneficial ownership. Steven A. Cohen ("Mr. Cohen") is the sole member of 72 Investment Holdings and may be deemed to share beneficial ownership of the shares of which 72 Investment Holdings may be deemed to share beneficial ownership. Each of Differentiated Ventures, 72 Investment Holdings, and Mr. Cohen disclaims beneficial ownership of the shares held by Point72 Biotech. Pursuant to an investment management agreement, Point72 Asset Management, L.P. ("Point72 Asset Management"), a Delaware limited partnership, maintains investment and voting power with respect to the shares held by Point72 Associates and therefore may be deemed to share beneficial ownership of such shares. Point72 Capital Advisors, Inc. ("Point72 Capital Advisors") a Delaware corporation, is the general partner of Point72 Asset Management and may be deemed to share beneficial ownership of the shares of which Point72 Asset Management may be deemed to share beneficial ownership. Mr. Cohen is the sole member of Point72 Capital Advisors and may be deemed to share beneficial ownership of the shares of which Point72 Capital Advisors may be deemed to share beneficial ownership. Each of Point72 Asset Management, Point72 Capital Advisors and Mr. Cohen disclaims beneficial ownership of the shares held by Point72 Associates. The address for these entities and individuals is c/o Point72, L.P., 72 Cummings Point Road, Stamford, CT 06902.

(3) Consists of (i) 2,386,301 shares of Common Stock received by RA Capital Healthcare Fund, L.P. ("RACHF") in the Merger as an equityholder of LENZ OpCo, (ii) 629,784 shares of Common Stock received by RA Capital Nexus Fund II, L.P. ("Nexus II") in the Merger as an equityholder of LENZ OpCo, (iii) 164,729 shares of Common Stock received by a separately managed account (the "Account," and together with RACHF and Nexus II, the "RA Funds") in the Merger as an equityholder of LENZ OpCo, (iv) 54,582 shares of Common Stock subject to warrants to purchase shares of Common Stock held by RACHF as an equityholder of LENZ OpCo, (v) 10,580 shares of Common Stock subject to warrants to purchase shares of Common Stock held by Nexus II as an equityholder of LENZ OpCo, (vi) 5,371 shares of Common Stock subject to warrants to purchase shares of Common Stock held by the Account as an equityholder of LENZ OpCo, (vii) 933,038 shares of Common Stock purchased by RACHF in the PIPE Financing, and (viii) 64,971 shares of Common Stock purchased by Nexus II in the PIPE Financing. RA Capital Management, L.P. is the investment manager for the RA Funds. The general partner of RA Capital Management, L.P. is RA Capital Management GP, LLC, of which Peter Kolchinsky, Ph.D. and Rajeev Shah are the managing members. Each of RA Capital Management, L.P., RA Capital Management GP, LLC, Mr. Kolchinsky and Mr. Shah may be deemed to have voting and investment power over the securities held by the RA Funds. RA Capital Management, L.P., RA Capital Management GP, LLC, Mr. Kolchinsky and Mr. Shah disclaim beneficial ownership of such securities, except to the extent of any pecuniary interest therein. The principal business address of the persons and entities listed above is 200 Berkeley Street, 18th Floor, Boston, MA 02116.

(4) Consists of (i) 598,203 shares of Common Stock received by Versant Vantage II, L.P. ("Versant Vantage II") in the Merger as an equityholder of LENZ OpCo, (ii) 1,598,789 shares of Common Stock received by Versant Venture Capital VII, L.P. ("Versant VII") in the Merger as an equityholder of LENZ OpCo, (iii) 70,534 shares of Common Stock subject to warrants to purchase shares of Common Stock held by Versant VII as an equityholder of LENZ OpCo, (iv) 2,101,199 shares of Common Stock held by Versant Venture Capital VI, LP ("Versant Capital VI"), and (v) 243,959 shares of Common Stock held by Versant Vantage II. Versant Vantage II GP-GP is the general partner of Versant Vantage II GP, which is the general partner of Versant Vantage II. Each of Versant Vantage II GP and Versant Vantage II GP-GP share voting and dispositive power with respect to the shares held by Versant Vantage II. Versant Ventures VI GP-GP, LLC ("Versant Ventures VI GP-GP") is the general partner of Versant Ventures VI GP, L.P. ("Versant Ventures VI GP"), which is the general partner of Versant VI. Each of Versant Ventures VI GP-GP and Versant Ventures VI GP share voting and dispositive power with respect to the shares held by Versant VI. Versant Ventures VII GP-GP is the general partner of Versant Ventures VII GP, which is the general partner of Versant VII. Each of Versant Ventures VII GP and Versant Ventures VII GP-GP share voting and dispositive power with respect to the securities held by Versant VII. The address for each of the entities mentioned in this footnote is One Sansome Street, Suite 1650, San Francisco, CA 94104.

(5) Consists of shares of Common Stock subject to options held by Mr. Schimmelpennink exercisable within 60 days of March 21, 2024.

(6) Consists of shares of Common Stock subject to options held by Mr. Olsson exercisable within 60 days of March 21, 2024.

(7) Consists of (i) 99,599 shares of Common Stock received by Dr. Odrich in the Merger as an equityholder of LENZ OpCo, and (ii) 66,472 shares of Common Stock subject to options held by Dr. Odrich exercisable within 60 days of March 21, 2024.

(8) Consists of shares of Common Stock subject to options held by Dr. Guerard exercisable within 60 days of March 21, 2024.

(9) Consists of (i) 95,034 shares of Common Stock received by James McCollum in the Merger as an equityholder of LENZ OpCo, (ii) 477,600 shares of Common Stock received by the McCollum Living Trust in the Merger as an equityholder of LENZ OpCo, (iii) 6,575 shares of Common Stock subject to warrants to purchase shares of Common Stock held by the McCollum Living Trust as an equityholder of LENZ OpCo, and (iv) 16,633 shares of common stock purchased by the McCollum Living Trust in the PIPE Financing. Mr. McCollum is a trustee of the McCollum Living Trust and as such has voting and investment control over the shares held by the McCollum Living Trust.

(10) Consists of the shares of Common Stock set forth in footnote 3 above. Dr. Scheiner is employed as a principal at RA Capital Management, L.P. Dr. Scheiner disclaims beneficial ownership of such shares, except to the extent of his pecuniary interest therein, if any.

(11) Consists of shares of Common Stock subject to options held by Ms. Drapkin exercisable within 60 days of March 21, 2024.

(12) Consists of (i) 4,867,689 shares of Common Stock beneficially owned by our executive officers and directors, (ii) 1,045,006 shares of Common Stock subject to options held our executive officers and directors and exercisable within 60 days of March 21, 2024, and (iii) 77,108 shares of Common Stock subject to warrants beneficially owned by our executive officers and directors.

Please see the sections titled "*Management*," "*Executive Compensation*" and "*Certain Relationships*, *Related Party and Other Transactions*" appearing elsewhere in this prospectus for information regarding material relationships with our principal securityholders within the past two years.

SELLING SECURITYHOLDERS

This prospectus relates to the resale by the selling securityholders from time to time of up to an aggregate of 1,297,411 shares of Common Stock that were issued to certain PIPE Investors in the PIPE Financing. The selling securityholders may from time to time offer and sell any or all of the shares of Common Stock set forth below pursuant to this prospectus and any accompanying prospectus supplement. When we refer to the "selling securityholders" in this prospectus, we mean the persons listed in the table below and their permitted transferees who later come to hold any of the selling securityholders' interest in the Common Stock in accordance with the terms of the applicable agreements governing their respective registration rights, other than through a public sale.

The following table sets forth, as of March 21, 2024 (after giving effect to the Merger), the names of the selling securityholders, the aggregate number of shares of Common Stock beneficially owned by the selling securityholders, the aggregate number of shares of Common Stock that the selling securityholders may offer pursuant to this prospectus and the number of shares of Common Stock that would be beneficially owned by the selling securityholders after the sale of the shares of Common Stock offered hereby assuming that the selling securityholders sell all of the shares of Common Stock covered by this prospectus. The percentage of beneficial ownership after the offered shares of Common Stock are sold is calculated based on 25,534,458 shares of Common Stock outstanding as of March 21, 2024 (after giving effect to the Merger).

We have determined beneficial ownership in accordance with the rules of the SEC and the information is not necessarily indicative of beneficial ownership for any other purpose. Unless otherwise indicated below, to our knowledge, the persons and entities named in the tables have sole voting and sole investment power with respect to the shares of Common Stock set forth below, subject to community property laws where applicable.

We cannot advise you as to whether the selling securityholders will in fact sell any or all of such Common Stock. In addition, the selling securityholders may sell, transfer or otherwise dispose of, at any time and from time to time, the Common Stock in transactions exempt from the registration requirements of the Securities Act after the date of this prospectus. For purposes of this table, we have assumed that the selling securityholders will have sold all of the shares of Common Stock covered by this prospectus upon the completion of the offering.

Selling securityholder information for each additional selling securityholder, if any, will be set forth by a prospectus supplement to the extent required prior to the time of any offer or sale of such selling securityholder's shares pursuant to this prospectus. Any prospectus supplement may add, update, substitute, or change the information contained in this prospectus, including the identity of each selling securityholder and the number of shares registered on its behalf. A selling securityholder may sell or otherwise transfer all, some or none of such shares in this offering. See "*Plan of Distribution*."

Name of Selling Securityholder	Common Stock Beneficially Owned Prior to Offering	Number of Shares of Common Stock Being Offered	Common Stock Beneficially Owned After the Offered Shares of Common Stock are Sold	
			Number	Percent
Alyeska Master Fund, LP[1]	199,602	199,602	—	—
RTW Biotech Opportunities, Ltd.[2]	108,351	15,387	92,964	*
RTW Innovation Master Fund, Ltd.[2]	316,880	103,902	212,978	*
RTW Master Fund, Ltd.[2]	438,158	113,578	324,580	1.3 %
Point72 Associates, LLC[3]	1,882,693	864,942	1,017,751	4.0 %
Total Shares	2,945,684	1,297,411	1,648,273	

* Less than 1%

(1) Alyeska Investment Group, L.P., the investment manager of Alyeska Master Fund, L.P. (the "Selling Securityholder"), has voting and investment control of the shares held by the Selling Securityholder. Anand Parekh is the Chief Executive Officer of Alyeska Investment Group, L.P. and may be deemed to be the beneficial owner of such shares. Mr. Parekh, however, disclaims any beneficial ownership of the shares held by the Selling Securityholder. The registered address of Alyeska Master Fund, L.P. is at c/o Maples Corporate Services Limited,

P.O. Box 309, Ugland House, South Church Street George Town, Grand Cayman, KY1-1104, Cayman Islands. Alyeska Investment Group, L.P. is located at 77 W. Wacker, Suite 700, Chicago IL 60601.

(2) RTW Investments, LP ("RTW"), in its capacity as the investment manager of RTW Biotech Opportunities, Ltd., RTW Innovation Master Fund, Ltd., and RTW Master Fund, Ltd. (collectively, the "RTW Funds"), has the power to vote and the power to direct the disposition of the shares held by the RTW Funds. Accordingly, RTW may be deemed to be the beneficial owner of such securities. Roderick Wong, M.D., as the Managing Partner of RTW, has the power to direct the vote and disposition of the securities held by RTW. Dr. Wong disclaims beneficial ownership of the shares held by the RTW Funds, except to the extent of his pecuniary interest therein. The address and principal office of RTW Investments, LP is 40 10th Avenue, Floor 7, New York, NY 10014, and the address of Dr. Wong and each of the RTW Funds is c/o RTW Investments, LP, 40 10th Avenue, Floor 7, New York, NY 10014.

(3) Point72 Asset Management, L.P. maintains investment and voting power with respect to the securities held by certain investment funds it manages, including Point72 Associates, LLC. Point72 Capital Advisors, Inc. is the general partner of Point72 Asset Management, L.P. Mr. Steven A. Cohen controls each of Point72 Asset Management, L.P. and Point72 Capital Advisors, Inc. By reason of the provisions of Rule 13d-3 of the Exchange Act, each of Point72 Asset Management, L.P., Point72 Capital Advisors, Inc., and Mr. Cohen may be deemed to beneficially own the securities directly held by Point72 Associates reflected herein. Each of Point72 Asset Management, L.P., Point72 Capital Advisors, Inc., and Mr. Cohen disclaims beneficial ownership of any such securities.

Please see the sections titled "Certain Relationships, Related Party and Other Transactions" appearing elsewhere in this prospectus for information regarding material relationships with our selling securityholders within the past two years.

DESCRIPTION OF SECURITIES

The following description of our capital stock and provisions of our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws are summaries and are qualified by reference to our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws and applicable provisions of Delaware corporate law.

Authorized Capital Stock

Our authorized capital stock consists of 300,000,000 shares of common stock, par value $0.00001 per share and 10,000,000 shares of preferred stock, par value $0.00001 per share.

Common Stock

Voting

Holders of our common stock are entitled to one vote for each share of common stock held of record for the election of directors and on all matters submitted to a vote of stockholders. Except as described under "*Anti-Takeover Effects of Delaware Law and Provisions of our Amended and Restated Certificate of Incorporation and Bylaws*" below, a majority vote of the holders of our common stock is generally required to take action under our Certificate of Incorporation and Bylaws.

Dividends

Holders of common stock are entitled to receive dividends ratably, if any, as may be declared by our board of directors out of legally available funds, subject to any preferential dividend rights of any preferred stock then outstanding.

Distributions on Liquidation

Upon our dissolution, liquidation or winding up, holders of our common stock are entitled to share ratably in our net assets legally available after the payment of all of our debts and other liabilities, subject to the preferential rights of any preferred stock then outstanding.

Other Rights

Holders of our common stock have no preemptive, subscription, redemption or conversion rights and no sinking fund provisions are applicable to our common stock. The rights, preferences and privileges of holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Preferred Stock

Our board of directors is authorized, without action by the stockholders, to designate and issue up to an aggregate of 10,000,000 shares of preferred stock in one or more series. Our board of directors can designate the rights, preferences and privileges of the shares of each series and any of its qualifications, limitations or restrictions. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of common stock. The issuance of preferred stock, while providing flexibility in connection with possible future financings and acquisitions and other corporate purposes could, under certain circumstances, have the effect of restricting dividends on our common stock, diluting the voting power of our common stock, impairing the liquidation rights of our common stock, or delaying, deferring or preventing a change in control of the Company, which might harm the market price of our common stock. Our board of directors will make any determination to issue such shares based on its judgment as to our best interests and the best interests of our stockholders.

Anti-Takeover Effects of Delaware Law and Provisions of our Amended and Restated Certificate of Incorporation and Bylaws

Certain provisions of the DGCL and of our Certificate of Incorporation and Bylaws could have the effect of delaying, deferring or discouraging another party from acquiring control of our Company. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our board of directors. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests. However, we believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Delaware Takeover Statute

We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the Graphite board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by the Graphite board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge, exchange, mortgage or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Transfer Agent

The transfer agent for our Common Stock is Equiniti Trust Company, LLC.

Exchange Listing

Our Common Stock is listed on Nasdaq under the symbol "LENZ."

PLAN OF DISTRIBUTION

The selling securityholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests in shares of common stock received after the date of this prospectus from a selling securityholders as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests in shares of common stock on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling securityholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling securityholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

The selling securityholders may, from time to time, pledge or grant a security interest in some or all of the shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, as amended (the "Securities Act"), amending the list of selling securityholders to include the pledgee, transferee or other successors in interest as selling securityholders under this prospectus. The selling securityholders also may transfer the shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling securityholders for purposes of this prospectus.

In connection with the sale of our common stock or interests therein, the selling securityholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of the common stock in the course of hedging the positions they assume. The selling securityholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling securityholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling securityholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling securityholders

reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling securityholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule, or another available exemption from the registration requirements of the Securities Act.

The selling securityholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be "underwriters" within the meaning of Section 2(a)(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling securityholders who are "underwriters" within the meaning of Section 2(a)(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of our common stock to be sold, the names of the selling securityholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling securityholders that the anti-manipulation rules of Regulation M under the Securities Exchange Act of 1934, as amended, may apply to sales of shares in the market and to the activities of the selling securityholders and their affiliates. In addition, to the extent applicable, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling securityholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling securityholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling securityholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We have agreed with the selling securityholders to use commercially reasonable efforts to cause the registration statement of which this prospectus constitutes a part to become effective and to remain continuously effective until the earlier of (1) such time as all of the shares covered by this prospectus have been disposed of pursuant to and in accordance with such registration statement or (2) (B) the date that all the shares covered by this prospectus cease to be Registrable Securities.

LEGAL MATTERS

The validity of the Securities offered hereby has been passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation. Certain members of, and investment partnerships comprised of members of, and persons associated with, Wilson Sonsini Goodrich & Rosati, Professional Corporation, directly or indirectly own less than 0.1% of the outstanding shares of our common stock.

EXPERTS

The financial statements of Lenz Therapeutics, Inc. as of December 31, 2022 and 2023, and for the years then ended, included in this Prospectus and Registration Statement have been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

The financial statements of Graphite Bio, Inc. as of December 31, 2023 and 2022, and for each of the two years in the period ended December 31, 2023, included in this prospectus have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are included in reliance upon the report of such firm given their authority as experts in accounting and auditing.

Change in Certifying Accountant

(a) Dismissal of Independent Registered Accounting Firm

On March 21, 2024, the audit committee of the board of directors approved a resolution dismissing Deloitte & Touche LLP ("Deloitte"), Graphite's independent registered public accounting firm prior to the Merger, as New LENZ's independent registered public accounting firm.

The reports of Deloitte on Graphite's financial statements as of and for the most fiscal years ending December 31, 2023 and 2022 did not contain an adverse opinion or a disclaimer of opinion, and were not qualified or modified as to uncertainties, audit scope or accounting principles.

During Graphite's fiscal years ending December 31, 2023 and 2022 and the subsequent interim period through March 21, 2024, there were no disagreements between Graphite and Deloitte on any matter of accounting principles or practices, financial disclosure or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of Deloitte, would have caused it to make reference to the subject matter of the disagreements in its reports on Graphite's financial statements for such year.

During Graphite's fiscal years ending December 31, 2023 and 2022 and the subsequent interim period through March 21, 2024, there were no "reportable events" (as defined in Item 304(a)(1)(v) of Regulation S-K under the Exchange Act).

New LENZ provided Deloitte with a copy of the foregoing disclosures and has requested that Deloitte furnish New LENZ with a letter addressed to the SEC stating whether it agrees with the statements made by New LENZ set forth above. A copy of Deloitte's letter, dated March 21, 2024, is filed as an exhibit hereto.

(b) Engagement of New Independent Registered Accounting Firm

On March 21, 2024, the audit committee of the board of directors approved a resolution appointing Ernst & Young LLP ("EY") as New LENZ's independent registered public accounting firm to audit New LENZ's consolidated financial statements for the fiscal year ending December 31, 2024. EY served as the independent registered public accounting firm of LENZ OpCo prior to the Merger. During the fiscal years ending December 31, 2023 and 2022 and the subsequent interim period through March 21, 2024, neither New LENZ, nor any party on behalf of New LENZ, consulted with EY with respect to either (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of the audit opinion that might be rendered with respect to New LENZ's consolidated financial statements, and no written report or oral advice was provided to New LENZ by EY that was an important factor considered by New LENZ in reaching a decision as to any accounting, auditing or financial reporting issue, or (ii) any matter that was subject to any disagreement (as that term is defined

in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) or a reportable event (as that term is defined in Item 304(a)(1)(v) of Regulation S-K).

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act that registers the shares of our Common Stock to be sold in this offering. The registration statement, including the attached exhibits and schedules, contains additional relevant information about us and our capital stock. The rules and regulations of the SEC allow us to omit from this prospectus certain information included in the registration statement. For further information about us and the Securities, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement.

We are subject to the informational reporting requirements of the Exchange Act. We file reports, proxy statements and other information with the SEC under the Exchange Act. Our SEC filings are available over the Internet at the SEC's website at http://www.sec.gov. Our website address is https://lenz-tx.com/. The information on, or that can be accessed through, our website is not part of this prospectus.

INDEX TO FINANCIAL STATEMENTS

Graphite Bio, Inc.

Lenz Therapeutics, Inc.

Report of Independent Registered Public Accounting Firm

To the shareholders and the Board of Directors of Graphite Bio, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Graphite Bio, Inc. (the "Company") as of December 31, 2023 and 2022, the related statements of operations and comprehensive loss, stockholders' equity, and cash flows, for each of the two years in the period ended December 31, 2023, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

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

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

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

/s/ Deloitte & Touche LLP

San Francisco, California
February 27, 2024

We have served as the Company's auditor since 2021.

Graphite Bio, Inc.
Balance Sheets
(in thousands, except share and per share data)

	December 31, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 184,259	$ 47,730
Investments in marketable securities, current	—	220,499
Restricted cash, current	1,602	—
Prepaid expenses and other current assets	2,160	7,136
Total current assets	188,021	275,365
Restricted cash, non-current	114	1,716
Investments in marketable securities, non-current	—	15,322
Property and equipment, net	—	22,630
Operating lease right-of-use assets	321	5,580
Other assets	—	1,289
Total assets	$ 188,456	$ 321,902
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$ 250	$ 2,608
Accrued compensation	1,534	3,799
Accrued research costs	—	720
Accrued expenses and other current liabilities	2,728	1,871
Operating lease liabilities, current	285	4,045
Total current liabilities	4,797	13,043
Operating lease liabilities, non-current	77	1,749
Other long- term liabilities	—	10,819
Total liabilities	4,874	25,611
Commitments and contingencies (Note 7)		
Stockholders' equity:		
Preferred stock, $0.00001 par value, 10,000,000 shares authorized as of December 31, 2023 and 2022; and no shares issued and outstanding as of December 31, 2023 and 2022	—	—
Common stock, $0.00001 par value, 300,000,000 shares authorized as of December 31, 2023 and 2022; 58,008,396 and 58,221,760 shares issued and outstanding as of December 31, 2023 and 2022, respectively	1	1
Additional paid-in capital	550,635	539,741
Accumulated other comprehensive loss	—	(1,048)
Accumulated deficit	(367,054)	(242,403)
Total stockholders' equity	183,582	296,291
Total liabilities and stockholders' equity	$ 188,456	$ 321,902

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

Graphite Bio, Inc.
Statements of Operations and Comprehensive Loss
(in thousands, except share and per share data)

	Year Ended December 31,	
	2023	**2022**
Operating expenses:		
Research and development	$ 32,137	$ 72,787
General and administrative	40,973	32,852
Restructuring and impairment costs	62,081	—
Total operating expenses	135,191	105,639
Loss from operations	(135,191)	(105,639)
Other income (expense), net:		
Interest income, net	10,949	4,587
Loss on disposal of assets	(71)	—
Other expense, net	(338)	—
Total other income, net	10,540	4,587
Net loss	$ (124,651)	$ (101,052)
Unrealized gain (loss) on investments in marketable securities	1,048	(1,048)
Comprehensive loss	$ (123,603)	$ (102,100)
Net loss per share attributable to common stockholders—basic and diluted	$ (2.19)	$ (1.84)
Weighted-average shares used in computing net loss per share—basic and diluted	57,015,159	54,873,675

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

Graphite Bio, Inc.
Statements of Stockholders' Equity
(in thousands, except share data)

	Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount				
Balance at December 31, 2021	58,010,823	$ 1	$ 525,400	$ —	$ (141,351)	$ 384,050
Common shares issued upon exercise of options	67,196	—	20	—	—	20
Common shares issued under ESPP	333,155	—	656	—	—	656
Vesting of early exercised shares	—	—	131	—	—	131
Repurchase of unvested early exercised shares	(189,414)	—	—	—	—	—
Stock-based compensation expense	—	—	13,534	—	—	13,534
Unrealized loss on investments in marketable securities	—	—	—	(1,048)	—	(1,048)
Net loss	—	—	—	—	(101,052)	(101,052)
Balance at December 31, 2022	58,221,760	$ 1	$ 539,741	$ (1,048)	$ (242,403)	$ 296,291
Common stock issued upon exercise of options	101,900	—	100	—	—	100
Common stock issued under ESPP	65,222	—	157	—	—	157
Vesting of early exercised shares	—	—	63	—	—	63
Repurchase of founders' shares	(152,694)	—	—	—	—	—
Repurchase of unvested early exercised shares	(227,792)	—	—	—	—	—
Stock-based compensation expense	—	—	10,574	—	—	10,574
Unrealized gain on investments in marketable securities	—	—	—	1,048	—	1,048
Net loss	—	—	—	—	(124,651)	(124,651)
Balance at December 31, 2023	58,008,396	$ 1	$ 550,635	$ —	$ (367,054)	$ 183,582

The accompanying notes are an integral part of these financial statements

Graphite Bio, Inc.
Statements of Cash Flows
(in thousands)

	Year Ended December 31,	
	2023	2022
Cash flows from operating activities:		
Net loss	$ (124,651)	$ (101,052)
Adjustments to reconcile net loss to net cash used in operating activities:		
Net amortization of premiums and discounts on investments in marketable securities	1,543	(1,600)
Depreciation and amortization	2,407	2,352
Non-cash lease expense	4,289	5,994
Stock-based compensation expense	10,574	13,534
Gain on ROU asset abandonment	(1,638)	—
Loss on sale/ disposal of assets	71	—
Impairment of assets	56,621	—
Changes in assets and liabilities:		
Prepaid expenses and other current assets and other assets	5,676	(3,211)
Accounts payable	(2,358)	194
Accrued compensation	(2,265)	1,110
Accrued research costs	(720)	87
Accrued expenses and other current liabilities and other liabilities	1,806	94
Operating lease liabilities	(41,362)	(5,482)
Net cash used in operating activities	(90,007)	(87,980)
Cash flows from investing activities:		
Purchases of property and equipment	(10,856)	(6,594)
Proceeds from sales of property and equipment	1,904	—
Purchases of investments in marketable securities	(28,129)	(405,519)
Proceeds from sales and maturities of marketable securities	263,427	170,250
Net cash provided by (used in) investing activities	226,346	(241,863)
Cash flows from financing activities:		
Proceeds from issuance of common stock upon exercise of vested stock options	100	20
Proceeds from employee stock purchase plan	157	656
Repurchase of unvested early exercised shares and founders' shares	(67)	(79)
Net cash provided by financing activities	190	597
Net increase (decrease) in cash, cash equivalents and restricted cash	136,529	(329,246)
Cash, cash equivalents and restricted cash, at beginning of period	49,446	378,692
Cash, cash equivalents and restricted cash, at end of period	$ 185,975	$ 49,446
Reconciliation of cash, cash equivalents and restricted cash to statement of financial position:		
Cash and cash equivalents	184,259	47,730
Restricted cash	1,716	1,716
Cash, cash equivalents and restricted cash in statement of financial position	$ 185,975	$ 49,446
Supplemental disclosures of non-cash investing and financing information:		
Property and equipment purchases in accounts payable and accrued expenses	$ —	$ (36)
Lessor funded lease incentive additions included in property and equipment	$ 7,193	$ 11,920
Additions to ROU assets from new operating lease liabilities	$ 31,974	$ —
Vesting of early exercised stock options	$ 63	$ 131
Repurchase of unvested early exercised shares included in accounts payable	$ —	$ (17)

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

Graphite Bio, Inc.

Notes to Financial Statements

1. Description of Business, Organization and Liquidity

Organization and Business

Graphite Bio, Inc. (the "Company") has historically been a clinical-stage, next-generation gene editing company. In January 2023, the Company announced a voluntary pause of its Phase 1/2 CEDAR study of nulabeglogene autogedtemcel ("nula-cel"), the Company's lead product candidate for sickle cell disease ("SCD"), due to a serious adverse event in the first patient dosed, which the Company concluded is likely related to study treatment. Nula-cel was designed to provide a highly differentiated approach with the potential to directly correct the mutation that causes SCD and restore normal adult hemoglobin expression.

The Company was incorporated in Ontario, Canada in June 2017 as Longbow Therapeutics Inc., and was reincorporated in the State of Delaware in October 2019. In February 2020, the Company changed its name to Integral Medicines, Inc., and again in August 2020, changed the name to Graphite Bio, Inc. Research and development of the Company's initial technology ceased at the end of 2018, and the Company did not have any significant operations or any research and development activities in 2019. In March 2020, the Company identified new gene editing technology which the Company sought to further develop, and the Company licensed the related intellectual property rights from The Board of Trustees of the Leland Stanford Junior University ("Stanford") in December 2020 (Note 6).

In February 2023, the Company announced its decision to discontinue the development of nula-cel and initiate a process to explore strategic alternatives (the "Restructuring Plan"). As a result of this decision, the Company conducted a corporate restructuring that resulted in an approximately 50% reduction in force in February 2023 and additional reductions in August 2023 that resulted in a total reduction in force of 78.1%. In August 2023, the Company subleased some of its facilities to recover a portion of the total costs. Together, these restructuring actions are intended to reduce the Company's operational cash burn in an effort to maximize its strategic optionality.

The Company had previously disclosed its intention to continue research activities associated with its pre-clinical non-genotoxic conditioning program, with the goal of advancing toward one or more potential development candidates. In August, the Company entered into an asset purchase agreement pursuant to which the Company transferred to Maro Bio, Inc. ("Maro") its pre-clinical non-genotoxic conditioning program, including its technology and intellectual property. Also in August 2023, the Company entered into a license and option agreement (the "LOA"), pursuant to which it granted another third-party an option to acquire certain of the Company's technology and intellectual property related to its nula-cel program and related pre-clinical platform assets. On September 12, 2023, the Company and Kamau Therapeutics, Inc. ("Kamau") entered into an amendment to the LOA, under which we agreed to assign certain contracts to Kamau prior to exercise of the option, and as of December 31, 2023, these contracts have been assigned to Kamau.

In October 2023, the Company entered into an amendment to the master lease, with Bayside Area Development, which provided for an accelerated termination of the lease. The amendment to the master lease also provided for a release of liabilities under the master lease, as well as under the new sublease entered into for a portion of the facility leased to it by Bayside Area Development in October 2023, upon payment of a lump sum at the time of signing. Following this transaction, the Company is no longer obligated for any rent payments under its master lease with Bayside Area Development.

After a comprehensive review of strategic alternatives, including identifying and reviewing potential candidates for a strategic transaction, on November 14, 2023, the Company entered into the Merger Agreement with LENZ, pursuant to which a wholly-owned subsidiary of the Company will merge with and into LENZ, with LENZ surviving as the Company's wholly-owned subsidiary. The merger was unanimously approved by the Company's board of directors, and the board resolved to recommend approval of the Merger Agreement to the stockholders. The closing of the merger is subject to approval by the Company and LENZ's stockholders, as well as other customary closing conditions, including the effectiveness of a registration statement filed with the SEC in connection with the

transaction and Nasdaq's approval of the listing of the shares of the Graphite common stock to be issued in connection with the transaction. If the merger is completed, the business of LENZ will continue as the business of the combined company.

From its inception in 2017, the Company's primary activities have been to perform research and development, undertake preclinical studies and enable manufacturing activities in support of its product development efforts, organize and staff the Company, establish its intellectual property portfolio, and raise capital to support and expand such activities. The Company's future operations are highly dependent on the success of the merger and there can be no assurances that the merger will be successfully consummated. There can be no assurance that the strategic review process or any transaction relating to a specific asset, including the merger or any asset sale, will result in the Company pursuing such a transaction(s), or that any transaction(s), if pursued, will be completed on terms favorable to the Company and its stockholders. If the strategic review process is unsuccessful, its board of directors may decide to pursue a dissolution and liquidation of the Company.

Liquidity Matters

The Company has incurred significant operating losses since inception and has primarily relied on private equity and convertible debt financings to fund its operations. As of December 31, 2023, the Company had an accumulated deficit of $367.1 million. The Company expects to continue to incur substantial losses. The Company may never achieve profitability, and unless and until then, the Company will need to continue to raise additional capital. Management expects that the existing cash and cash equivalents of $184.3 million as of December 31, 2023 will be sufficient to fund the Company's current operating plan for at least the next 12 months from the date of issuance of these financial statements.

On July 21, 2022, the Company filed a shelf registration statement on Form S-3 (the "2022 Shelf") with the SEC in relation to the registration of up to an aggregate offering price of $300.0 million of common stock, preferred stock, debt securities, warrants and units or any combination thereof. The Company also simultaneously entered into a Controlled Equity OfferingSM Sales Agreement with Cantor Fitzgerald & Co. (the "Sales Agent"), to provide for the offering, issuance and sale by the Company of up to an aggregate of $75.0 million of its common stock from time to time in "at-the-market" offerings under the 2022 Shelf and subject to the limitations thereof (the "Sales Agreement"). The Company will pay to the Sales Agent cash commissions of up to 3.0 percent of the gross proceeds of sales of common stock under the Sales Agreement. The Company has not issued any shares or received any proceeds from any offerings under the 2022 Shelf through December 31, 2023.

2. Summary of Significant Accounting Policies

Basis of Presentation

These financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of expenses during the reporting period. On an ongoing basis, the Company evaluates estimates and assumptions, including but not limited to those related to the fair value of the marketable securities, stock-based compensation expense, accruals for research and development costs, lease assets and liabilities, the valuation of deferred tax assets, uncertain income tax positions, and impairment of long-lived assets. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from those estimates.

Principles of Consolidation

The Company assesses entities for consolidation based on the specific facts and circumstances surrounding that entity. The Company first considers whether an entity is considered a variable interest entity ("VIE") and therefore whether to apply the consolidation guidance under the VIE model. Entities that do not qualify as VIEs are assessed for consolidation as voting interest entities ("VOE") under the voting interest model.

An entity is considered to be a VIE if any of the following conditions exist: (i) the equity investment at risk is not sufficient to finance the activities of the entity without additional subordinated financial support, (ii) as a group, the holders of the equity investment at risk lack the power to direct the activities that most significantly impact the entity's economic performance or the obligation to absorb the expected losses or right to receive the expected residual returns, and (iii) the voting rights of some holders of the equity investment at risk are disproportionate to their obligation to absorb losses or right to receive returns, and substantially all of the activities are conducted on behalf of the holder of equity investment at risk with disproportionately few voting rights.

The Company consolidates all VIEs in which it is the primary beneficiary. An entity is determined to be the primary beneficiary if it holds a controlling financial interest in a VIE. The consolidation guidance requires an analysis to determine (i) whether an entity in which the Company holds a variable interest is a VIE and (ii) whether the Company's involvement, through holding interest directly or indirectly in the entity or contractually through other variable interests, would give it a controlling financial interest. Performance of that analysis requires judgment.

Concentration of Credit Risk

Cash and cash equivalents are financial instruments that potentially subject the Company to concentrations of credit risk. Substantially all of the Company's cash and cash equivalents are deposited in accounts with major financial institution and amounts may exceed federally insured limits. Management believes that the Company is not exposed to significant credit risk due to the financial strength of the depository institution in which the cash and cash equivalents are held. The Company has not experienced any losses on deposits of cash and cash equivalents.

Risks and Uncertainties

The Company is subject to certain risks and uncertainties, including, but not limited to, changes in any of the following areas that the Company believes could have a material adverse effect on the future financial position or results of operations: the timing of, and the Company's ability to advance its current and future product candidates into and through clinical development; costs and timelines associated with the manufacture of clinical supplies of the Company's product candidates; regulatory approval and market acceptance of, and reimbursement for its product candidates; performance of third-party CROs and CMOs; competition from pharmaceutical companies with greater financial resources or expertise; protection of the intellectual property; litigation or claims against the Company based on intellectual property or other factors; and its ability to attract and retain employees necessary to support its growth. Disruption from CROs', CMOs' or suppliers' operations would likely have a negative impact on the Company's business, financial position and results of operations.

Segment and Geographical Information

The Company operates and manages its business as one reportable and operating segment. The chief executive officer, who is the chief operating decision maker, reviews financial information on an aggregate basis for purposes of allocating resources and evaluating financial performance. All of the Company's long-lived assets are based in the United States.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with a maturity of three months or less at the date of purchase to be cash equivalents. As of December 31, 2023 and 2022, cash and cash equivalents consisted of cash, money market funds, and commercial paper.

Restricted Cash

Restricted cash of $0.1 million and $1.7 million as of December 31, 2023 and 2022, respectively, represented security deposits in the form of letters of credit issued in connection with the Company's leases. A lease amendment was executed in October 2023 for the Company's intended headquarters at 233 E. Grand Ave, whereby the Company did not have any further rent obligations to the landlord following the effective date. As of December 31, 2023, the letter of credit of $1.6 million is expected to be returned within a year and is presented as Restricted cash, current on the balance sheet. The remaining letter of credit is related to the Company's former headquarters at 201 Haskins Way, which will be returned upon lease termination.

Marketable Securities

The Company's marketable securities are accounted for as available-for-sale and recorded at fair value with the related unrealized gains and losses included in accumulated other comprehensive gain (loss).

The Company reviews its investment portfolio to identify and evaluate investments that have an indication of possible other-than-temporary impairment. Factors considered in determining whether a loss is other-than-temporary include the length of time and extent to which fair value has been less than the cost basis, the financial condition and near-term prospects of the investee and the Company's intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value.

Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. The carrying amounts of financial instruments, including restricted cash, prepaid expenses and other current assets, accounts payable, accrued compensation, accrued expenses, and other liabilities, approximate fair value due to their short-term maturities. The cash invested in money-market funds are carried at fair value.

Property and Equipment, Net

Property and equipment are recorded at cost, less accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful lives of the assets, generally three to five years. Repairs and maintenance expenditures, which are not considered improvements and do not extend the useful life of property and equipment, are expensed as incurred. When assets are retired or otherwise disposed of, the cost and related accumulated depreciation and amortization are removed from the balance sheet and the resulting gain or loss is reflected in the statements of operations and comprehensive loss in the period realized.

Leases

Effective January 1, 2021, the Company adopted ASC Topic 842, Leases ("ASC 842") using the optional transition method and applied the standard only to leases that existed at that date. Under the optional transition method, the Company does not need to restate the comparative periods in transition and will continue to present financial information and disclosures for periods before January 1, 2021 in accordance with ASC Topic 840. The Company has elected the package of practical expedients allowed under ASC Topic 842, which permits the Company to account for its existing operating leases as operating leases under the new guidance, without reassessing the Company's prior conclusions about lease identification, lease classification and initial direct cost. As a result of the adoption of the new lease accounting guidance on January 1, 2021, the Company recognized no cumulative adjustment to accumulated deficit since the Company had only one operating lease with a term of less than 12 months and no plans to extend the lease.

The Company determines the initial classification and measurement of its right-of-use assets and lease liabilities at the lease commencement date and thereafter if modified. The lease term includes any renewal options and termination options that the Company is reasonably assured to exercise. The present value of lease payments is determined by using the interest rate implicit in the lease, if that rate is readily determinable; otherwise, the

Company uses its incremental borrowing rate. The incremental borrowing rate is determined by using the rate of interest that the Company would pay to borrow on a collateralized basis an amount equal to the lease payments for a similar term and in a similar economic environment.

Fixed lease expense for operating leases is recognized on a straight-line basis, unless the right-of-use assets have been impaired, over the reasonably assured lease term based on the total lease payments and is included in operating expenses in the statements of operations and comprehensive loss. Variable lease expenses are recognized as incurred. Fixed and variable lease expense on operating leases is recognized within operating expenses in the statements of operations and comprehensive loss.

For operating leases for which the right-of-use assets have been impaired, the Company will recognize the amortization of the right-of-use assets on a straight-line basis over the remaining respective lease term with lease expense included in operating expenses in the statements of operations and comprehensive loss.

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

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

Asset Acquisitions

The Company measures and recognizes asset acquisitions that are not deemed to be business combinations based on the cost to acquire the assets, which includes transaction costs. Goodwill is not recognized in asset acquisitions. In an asset acquisition, the cost allocated to acquire in-process research and development ("IPR&D") with no alternative future use is charged to research and development expense at the acquisition date. Please refer to Note 6 for more details on asset acquisition.

Impairment of Long-Lived Assets

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability is measured by comparing the carrying amount to the future undiscounted net cash flows which the assets are expected to generate. If such assets are considered to be impaired, the impairment to be recognized is measured as the amount by which the carrying amount of the assets exceeds the projected discounted future net cash flows generated by the assets. During the year ended December 31, 2023, the Company recognized $54.1 million related to the impairment of its leases and long- lived assets. There were no such impairments of long-lived assets in the year ended December 31, 2022. Please refer to Note 13 for more details on impairment.

Research and Development Expenses

Research and development costs are expensed as incurred. Research and development costs include salaries, stock-based compensation, and benefits for employees performing research and development activities, an allocation of facility and overhead expenses, expenses incurred under agreements with consultants, CMOs, CROs and investigative sites that conduct preclinical studies, other supplies and costs associated with product development efforts, preclinical activities, and regulatory operations.

Accrued Research and Development Expenses

The Company has historically entered into various agreements with outsourced vendors, CROs and CMOs. Research and development accruals are estimated based on the level of services performed, progress of the studies, including the phase or completion of events, and contracted costs. The estimated costs of research and development services provided, but not yet invoiced, are included in accrued research costs on the balance sheets. If the actual timing of the performance of services or the level of effort varies from the original estimates, the Company will adjust the accrual accordingly. Payments made under these arrangements in advance of the performance of the

related services are recorded as prepaid expenses and other current assets until the services are rendered. To date, there have been no material differences between estimates of such expenses and the amounts actually incurred.

Tax Credit Receivable

The Company is eligible for federal and California research and development credits for its research and development activities performed within the United States and California, respectively. The credits are, generally, available to offset federal and California income tax liabilities as applicable. The Company has applied $0.3 million of federal research and development credits to offset its federal payroll tax expenses as of the year ended December 31, 2023 due to its small business status.

Income Taxes

The Company accounts for income taxes using the asset and liability method. The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements or tax returns. Deferred tax assets and liabilities are determined based on the difference between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse.

In evaluating the ability to recover deferred income tax assets, the Company considers all available positive and negative evidence, including operating results, ongoing tax planning and forecasts of future taxable income on a jurisdiction-by-jurisdiction basis. In the event the Company determines that it would be able to realize deferred income tax assets in the future in excess of their net recorded amount, the Company would make an adjustment to the valuation allowance that would reduce the provision for income taxes. Conversely, in the event that all or part of the net deferred tax assets are determined not to be realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period when such determination is made. As of December 31, 2023 and 2022, the Company has recorded a full valuation allowance on deferred tax assets.

Tax benefits related to uncertain tax positions are recognized when it is more likely than not that a tax position will be sustained during an audit. Interest and penalties related to unrecognized tax benefits are included within the provision for income tax.

Stock-Based Compensation Expense

The Company's stock-based equity awards include restricted stock awards and stock options that are granted to employees and consultants that are accounted at fair value on the award grant date. Stock-based compensation expense is recognized over the awards' vesting period on a straight-line basis and recorded as either research and development or general and administrative expenses in the statements of operations and comprehensive loss based on the function to which the related services are provided. Forfeitures are accounted for as they occur.

As there was no public market for the Company's common stock prior to the initial public offering of its common stock in June 2021, the estimated fair value of common stock was determined by the Company's board of directors as of the date of each option grant, with input from management, considering third-party valuations of its common stock, as well as the Company's board of directors' assessment of additional objective and subjective factors that it believed were relevant, and which may have changed from the date of the most recent third-party valuation through the date of the grant. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, Valuation of Privately Held Company Equity Securities Issued as Compensation. Following the closing of the initial public offering, the fair value of the Company's common stock is determined based on the quoted market price of common stock. The Company also lacks company-specific historical and implied volatility information for its stock. The Company estimates its expected stock price volatility and expected term based on the historical volatility and expected term of publicly traded peer companies and expects to continue to do so until such time as it has adequate historical data regarding the volatility of its own traded stock price. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. There is no expected dividend yield since the Company has never paid cash dividends on common stock and does not expect to pay any cash dividends in the foreseeable future.

Employee Stock Purchase Plan

The Company recognizes stock-based expense related to shares issued pursuant to its Employee Stock Purchase Plan ("ESPP") on a straight-line basis over the offering period, which is typically 6 months. The ESPP allows eligible employees to purchase shares of the Company's common stock at a 15 percent discount on the lower price of either (i) the offering period begin date or (ii) the purchase date. The Company estimates the fair value of shares to be issued under the ESPP using the Black-Scholes option-pricing model. There are no employees enrolled in the ESPP as of December 31, 2023.

Comprehensive Loss

Comprehensive loss is defined as the change in equity of a business during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss includes net loss as well as other changes in stockholders' deficit which includes certain changes in equity that are excluded from net loss. The Company's only element of other comprehensive loss is unrealized gains and losses on marketable securities.

Net Loss Per Share

Basic net loss per common share is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of common stock outstanding during the period, without consideration of potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted-average number of common stock and potentially dilutive securities outstanding for the period. For purposes of the diluted net loss per share calculation, redeemable convertible preferred stock, common stock subject to repurchase, restricted common shares issued, and stock options are considered to be potentially dilutive securities.

Basic and diluted net loss attributable to common stockholders per share is presented in conformity with the two-class method required for participating securities. Restricted shares issued to the founders and upon early exercise of stock options also participate in dividends from the issuance date and are considered participating securities. Participating securities do not have a contractual obligation to share in losses. As such, the net loss was attributed entirely to common stockholders. Because the Company has reported a net loss for all periods presented, diluted net loss per common share is the same as basic net loss per common share for those periods.

Adopted and Recent Accounting Pronouncements

The Company is a smaller reporting company and an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act"). Under the JOBS Act, emerging growth companies can delay the adoption of new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. Thus, the Company has elected to use the extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that (i) the Company is no longer an emerging growth company or (ii) the Company affirmatively and irrevocably opts out of the extended transition period provided in the JOBS Act. However, the Company may early adopt certain accounting standards, as the JOBS Act does not preclude an emerging growth company from adopting a new or revised accounting standard earlier than the time that such standard applies to private companies to the extent early adoption is permitted.

Recent Accounting Pronouncements

In November 2023, the FASB issued ASU No. 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* ("ASU 2023-07"). This update requires entities to disclose significant segment expenses by reportable segment if they are regularly provided to the Chief Operating Decision Maker and included in each reported measure of segment profit or loss and requires disclosure of other segment items by reportable segment and a description of its composition. ASU 2023-07 is effective for fiscal years beginning after December 15, 2023, with early adoption permitted. ASU 2023-07 should be applied retrospectively to all prior periods presented in the financial statements. The Company operates and discloses its operations as a single segment and does not expect the adoption of this standard to have a material impact on its annual and interim disclosures.

In December 2023, the FASB issued ASU No. 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures* ("ASU 2023-00"). This update requires entities to consistently categorize and provide greater disaggregation of information in the rate reconciliation and to further disaggregate income taxes paid by jurisdiction. ASU 2023-09 is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. ASU 2023-07 may be applied retrospectively or prospectively. The Company is currently evaluating the planned adoption date and the impact of this standard on its annual and interim disclosures.

3. Fair Value Measurements

Assets and liabilities recorded at fair value on a recurring basis in the balance sheets, as well as assets and liabilities measured at fair value on a non-recurring basis or disclosed at fair value, are categorized based upon the level of judgment associated with inputs used to measure their fair values. The accounting guidance for fair value provides a framework for measuring fair value and requires certain disclosures about how fair value is determined. Fair value is defined as the price that would be received upon the sale of an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date.

The accounting guidance also establishes a three-level valuation hierarchy that prioritizes the inputs to valuation techniques used to measure fair value based upon whether such inputs are observable or unobservable. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect market assumptions made by the reporting entity. The three-level hierarchy for the inputs to valuation techniques is briefly summarized as follows:

Level 1 — Inputs are unadjusted, quoted prices in active markets for identical assets or liabilities at the measurement date;

Level 2 — Inputs are observable, unadjusted quoted prices in active markets for similar assets or liabilities, unadjusted quoted prices for identical or similar assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities; and

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

Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. An assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability. Changes in the ability to observe valuation inputs may result in a reclassification of levels of certain securities within the fair value hierarchy. The Company recognizes transfers into and out of levels within the fair value hierarchy in the period in which the actual event or change in circumstances that caused the transfer occurs.

As of December 31, 2023 and 2022, Level 1 securities consist of U.S. Treasury and money market funds, for which the carrying amounts are based on the quoted market prices in active markets.

As of December 31, 2022, Level 2 securities consist of highly rated commercial paper, U.S. agency securities, and asset-backed securities, for which fair value is determined through the use of models or other valuation methodologies.

During the periods presented, the Company did not have any Level 3 securities.

The following tables set forth the financial instruments that were measured at fair value on a recurring basis by level within the fair value hierarchy as of December 31, 2023 and 2022 (in thousands):

	December 31, 2023			
	Total Fair Value	Level 1	Level 2	Level 3
Cash equivalents:				
Money market funds[1]	$ 184,259	$ 184,259	$ —	$ —
Commercial paper[1]	—	—	—	—
Total cash equivalents	$ 184,259	$ 184,259	$ —	$ —

	December 31, 2022			
	Total Fair Value	Level 1	Level 2	Level 3
Cash equivalents:				
Money market funds[1]	$ 45,739	$ 45,739	$ —	$ —
Commercial paper[1]	1,991	—	1,991	—
Total cash equivalents	47,730	45,739	1,991	—
Marketable securities:				
U.S. treasuries[2]	65,391	65,391	—	—
Commercial paper[2]	115,061	—	115,061	—
U.S. agency securities[2]	53,455	—	53,455	—
Asset-backed securities[2]	1,914	—	1,914	—
Total marketable securities	235,821	65,391	170,430	—
Total cash equivalents and marketable securities	$ 283,551	$ 111,130	$ 172,421	$ —

(1) Included within cash and cash equivalents on the balance sheet.
(2) Included within investments in marketable securities, current and investments in marketable securities, non-current on the balance sheet.

4. Marketable Securities

The Company did not hold any marketable securities as of December 31, 2023. The amortized cost, gross unrealized holding gains or losses, and fair value of the Company's marketable securities by major security type as of December 31, 2022 are summarized in the table below (in thousands):

	December 31, 2022			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Available-for-sale securities				
U.S. treasuries	$ 65,807	$ —	$ (416)	$ 65,391
Commercial paper	115,381	13	(333)	115,061
U.S. agency securities	53,767	15	(327)	53,455
Asset-backed securities	1,914	—	—	1,914
Total available-for-sale securities	$ 236,869	$ 28	$ (1,076)	$ 235,821

The amortized cost of available-for-sale securities is adjusted for amortization of premiums and accretion of discounts to maturity. As of December 31, 2023, the Company did not hold any securities in an unrealized loss with remaining maturities of less than one year. As a result, the Company determined it did not hold any investments with a credit loss at December 31, 2023.

There were minimal realized gains (losses) recognized on the sale or maturity of available-for-sale securities during year ended December 31, 2023, and as a result, there was a reclassification out of accumulated other comprehensive gain (loss) for the same period. There were no realized gains or losses recognized on the sale or maturity of available-for-sale securities during year ended December 31, 2022, and as a result, there were no reclassifications out of accumulated other comprehensive gain (loss) for the same period.

The Company did not hold any marketable securities as of December 31, 2023.

5. Balance Sheet Components

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets as of December 31, 2023 and 2022 consisted of the following (in thousands):

	December 31, 2023	December 31, 2022
Advances to suppliers	—	2,486
Prepaid insurance	780	1,343
Other prepaid expenses	1,380	3,307
Total prepaid expenses and other current assets	$ 2,160	$ 7,136

Property and Equipment, Net

Property and equipment, net as of December 31, 2023 and 2022 consisted of the following (in thousands):

	December 31, 2023	December 31, 2022
Furniture and fixtures	$ —	$ 321
Computers and network equipment	—	251
Lab equipment	—	12,521
Leasehold improvements	—	304
Construction-in-progress	—	12,440
Total property and equipment	—	25,837
Less: accumulated depreciation	—	(3,207)
Total property and equipment, net	$ —	$ 22,630

Depreciation expense was $2.4 million for each of the years ended December 31, 2023 and 2022.

As a result of the modification of our leases (see Note 8), we disposed of leasehold improvements, computer equipment, lab and office equipment, and furniture and fixtures and recorded a $0.1 million loss within Loss on disposal of assets and $11.3 million within Restructuring and impairment costs on the statement of operations and comprehensive loss during the year ended December 31, 2023.

Accrued Expenses

Accrued expenses as of December 31, 2023 and 2022 consisted of the following (in thousands):

	December 31, 2023	December 31, 2022
Professional fees	$ 1,029	$ 367
Early exercise liability	21	150
Other accrued expenses	143	1,354
Accrued employee termination benefits	1,535	—
Total accrued expenses and other current liabilities	$ 2,728	$ 1,871

6. Significant Agreements

Stanford Exclusive License Agreement

License Agreement

In December 2020, the Company entered into an exclusive license agreement (the "License Agreement") with The Board of Trustees of the Leland Stanford Junior University (Stanford), pursuant to which Stanford granted the Company a worldwide license to specified technology and patent rights to develop, manufacture and commercialize human prophylactic and therapeutic products. Other than with respect to specified, broadly applicable assays and procedures and subject to retained rights by Stanford, the license is exclusive with respect to human prophylactic and therapeutic products for the treatment of SCD, XSCID and beta thalassemia. The license is non-exclusive with respect to those broadly applicable assays and procedures and with respect to all human prophylactic and therapeutic products other than for the treatment of SCD, XSCID and beta thalassemia.

Pursuant to the License Agreement, the Company paid an upfront license fee of $50.0 thousand and as additional consideration for the license, the Company agreed to issue to Stanford approximately 0.6 million shares of common stock. As of December 31, 2020, the Company recorded its obligations to issue Stanford shares of common stock at an estimated fair value of $2.8 million to additional paid in capital. The shares of common stock were expected to be issued when Stanford provided the inventors' names for allocation of the shares. Stanford also received an option to purchase up to 10% of newly issued shares in the future private financings at the price paid by other participating investors. During the year ended December 31, 2021, the Company entered into an amendment to the License Agreement, pursuant to which it extended the time when the shares would be issued to May 7, 2021.

On May 7, 2021, the Company issued an aggregate of 640,861 shares of the Company's common stock to Stanford and certain individuals designated by Stanford in consideration for rights granted to the Company under the Company's exclusive license agreement.

On June 18, 2021, the Company exercised its right to repurchase an aggregate of 624,845 shares from each founder and investor under the Stanford Adjustment Repurchase Right as described below.

The acquisition of the exclusive license, including patent rights and know-how, and clinical supplies was accounted for as an asset acquisition and as the acquired technology and inventories did not have an alternative use, the total consideration of $2.8 million was recorded as research and development expense in the statements of operations and comprehensive loss for the year ended December 31, 2020.

In connection with the License Agreement, the Company reimbursed Stanford $0.2 million for previously incurred patent costs, which were recorded in general and administrative expenses for the year ended December 31, 2020 and in addition, is obligated to reimburse future patent costs. The Company is also obligated to pay annual maintenance fees as follows: $5.0 thousand in the first year, $10.0 thousand in each year 2 and 3, $25.0 thousand in each year 3 through 6, $50.0 thousand each subsequent year until first commercial sale and $200.0 thousand each subsequent year after the first commercial sale. No fees were recorded during the year ended December 31, 2023. The Company did not record any patent fees during the year ended December 31, 2023.

The Company is obligated to make future development and regulatory milestone payments in total of up to $5.3 million, sales based milestone payments of up to $7.5 million and royalties on future sales at percentage rates ranging in the low single digits. In addition, if the Company receives any sublicense income, it is required to share it with Stanford as a certain percentage defined for each milestone in the License Agreement. The Company will record the maintenance fees, when payable, and will record milestones when contingencies are resolved and milestones are due. No milestones were achieved and recorded as of December 31, 2023.

In August 2023, the Company entered into a license and option agreement (the "LOA"), pursuant to which the Company granted a third party an option to acquire certain of the Company's technology and intellectual property related to its nula-cel program and related pre-clinical platform assets. The License Agreement is included in the assets that are subject to the LOA and may be assigned to this third party if and when it exercises the option.

First Option Agreement

In January 2021, the Company entered into an option agreement (the "First Option Agreement") with Stanford, pursuant to which Stanford granted the Company the right to obtain a license to specified patent rights relating to human prophylactic and therapeutic products. The Company may exercise the option in whole or in part to obtain a license under one or more of the optioned patent rights.

Subject to the Company's exercise of the option under the First Option Agreement and its execution of an amendment to the License Agreement that incorporates the optioned patent rights and any optioned technology, the Company has agreed to issue to Stanford 132,137 shares of its common stock and pay a license execution fee of $10.0 thousand .

The term of the First Option Agreement expires 18 months after its effective date, subject to the Company's right to extend such expiration date by up to an additional one year upon notice to Stanford and by another additional one year upon the reasonable agreement of Stanford. The First Option Agreement will terminate if the License Agreement terminates. On June 23, 2022, the Company exercised its right to extend the term of the First Option Agreement for an additional year. On June 6, 2023, the Company and Stanford agreed to extend the term of the First Option Agreement for another additional year. As of December 31, 2023, the Company had not exercised the option under the First Option Agreement and no fees have been paid for the First Option Agreement.

In August 2023, the Company entered into the LOA, pursuant to which it granted a third party an option to acquire certain of the Company's technology and intellectual property related to its nula-cel program and related preclinical platform assets. The First Option Agreement is included in the assets that are subject to the LOA and may be assigned to this third party if and when it exercises the option.

Second Option Agreement

In April 2021, the Company entered into an option agreement (the "Second Option Agreement") with Stanford to negotiate the license for additional technologies from Stanford. Pursuant to the Second Option Agreement, the Company agreed to pay Stanford option fees in an aggregate amount of $30.0 thousand over the term of the option. On April 13, 2022, the Company entered into an amendment to the Second Option Agreement which extended the term for an additional year. On March 8, 2023, the Company terminated the Second Option Agreement without exercising the option to negotiate a license for additional technologies from Stanford. No maintenance fees were paid during the year ended December 31, 2023.

LCGM Service Agreement

On August 30, 2021, the Company entered into a Master Manufacturing and Service Agreement with the Laboratory for Cell & Gene Medicine at Stanford ("LCGM MSA"). Pursuant to the LCGM MSA, LCGM will conduct clinical manufacturing, release testing, and product release for nula-cel in the Company's Phase 1/2 CEDAR clinical trial to treat SCD. During 2021, the Company entered into various Statements of Work under the LCGM MSA under which it received technology transfer and related services for HBB Beta-Globin Gene Variant for SCD, manufacturing engineer test runs, the exclusive use of a manufacturing suite at the LCGM facility, and Phase 1/2 CEDAR clinical development and manufacturing of the HBB Variant for SCD. During the years ended

December 31, 2023 and 2022, the Company has recognized $1.7 and $6.1 millions in research and development expense in connection with the LCGM MSA. As of December 31, 2023, the LCGM MSA has been terminated and Graphite does not expect to incur any additional expenses.

IDT License Agreement

On June 7, 2021, the Company entered into a License Agreement ("IDT License Agreement") with Integrated DNA Technologies, Inc. ("IDT"). Pursuant to the IDT License Agreement, IDT granted the Company and its affiliates a worldwide, non-exclusive, sublicensable license to research and develop products incorporating HiFi Cas9 protein variants for use in human therapeutic applications for SCD, XSCID and Gaucher disease (the "Field") and a worldwide, exclusive, sublicensable license to commercialize such products in the Field. The Company has also been granted the right to expand the licensed Field to include human therapeutic applications in the additional fields of beta thalassemia disorder and lysosomal storage disorders upon the payment of an exercise fee in the amount of $0.5 million per additional field or $1.0 million for both additional fields.

In consideration of the licenses and rights granted to the Company under the IDT License Agreement, the Company agreed to pay to IDT an upfront payment in the amount of $3.0 million and up to $5.3 million (or $8.8 million if the Company elects to expand the Field as described above to include both the beta thalassemia and lysosomal storage disorders fields) in total regulatory milestone payments. Each regulatory milestone payment is payable once on an indication-by-indication basis. In addition, the Company has agreed to pay IDT a low single-digit royalty on the net sales of products, subject to reductions in specified circumstances. As the acquisition of the license was accounted for as an asset acquisition and as the acquired technology did not have an alternative use, the total consideration of $3.0 million was recorded as research and development expense in the statement of operations and comprehensive loss during the year ended December 31, 2021.

The IDT License Agreement remains in effect on a country-by-country and product-by-product basis until the expiration of the royalty term for such product in such jurisdiction. The Company and IDT each have the right to terminate the IDT License Agreement for the other party's material breach of its obligations under the IDT License Agreement, subject to specified rights to cure. Additionally, the Company may terminate the IDT License Agreement for any reason upon written notice.

During the year ended December 31, 2023, the Company has not recognized any research and development expense in connection with the IDT License Agreement. There are no milestones probable as of December 31, 2023; therefore, no milestone payments have been recognized in the year ended December 31, 2023. As of December 31, 2023, the Company does not expect to incur any additional expenses associated with the IDT License Agreement.

In August 2023, the Company entered into the LOA, pursuant to which it granted a third party an option to acquire certain of the Company's technology and intellectual property related to its nula-cel program and related preclinical platform assets. The IDT License Agreement is included in the assets that are subject to the LOA and may be assigned to this third party if and when it exercises the option.

Sale of Non-Genotoxic Targeted Conditioning Technology Assets

On August 1, 2023, the Company entered into an asset purchase agreement (the "APA") with a third party pursuant to which the Company sold to the counterparty, concurrently with the execution of the APA, certain assets related to the Company's non-genotoxic conditioning technology in exchange for upfront consideration of $0.5 million. Additional consideration included certain contingent milestone payments totaling up to approximately $1.0 million in the aggregate as well as royalties on net sales by the acquirer of certain products incorporating the acquired technology, and potential fees upon the completion of certain transactions by the acquirer. The APA also provided for reimbursement of certain research and development amounts incurred prior to closing of approximately $0.6 million.

The disposal of certain assets sold pursuant to the APA was accounted for as a deconsolidation of a subsidiary or group of assets in accordance with ASC 810. During the year ended December 31, 2023, the Company recognized a loss on disposal of $0.1 million, which was recorded in other expense. The Company will record amounts related to the contingent milestone payments, royalties, and potential transaction fees when contingencies

are resolved and amounts are due in accordance with ASC 450. No contingencies were resolved and recorded as of December 31, 2023.

License and Option to Acquire Nula-Cel Assets

On August 4, 2023, the Company entered into an LOA with a third party pursuant to which the Company exclusively licensed to the counterparty, and granted the counterparty, an option to acquire certain intellectual property and materials related to the Company's nula-cel program and related pre-clinical platform assets. Exercise of the option is contingent on the counterparty timely achieving a financing milestone, and all rights to the intellectual property and materials will revert to the Company if the milestone is not achieved or if the counterparty elects not to exercise the option. In return for this license and option, the Company received an equity interest in the counterparty representing 20% of all outstanding shares on a fully diluted basis. As a result of the 20% equity interest, the Company has the ability to exert significant influence over the counterparty and accounts for the interest as an equity method investment. The Company records its proportionate share of investee's equity in earnings or losses based on the most recently available financial information.

The Company assessed the entity under the VIE model to assess whether to apply the consolidation guidance in accordance with ASC 810. The Company holds variable interests in the entity, and the entity was determined to be a VIE which is not consolidated as it is determined the Company lacks the power to direct the activities that most significantly impact the entity's economic performance. The balance sheet does not contain assets and liabilities related to the Company's interest in the non-consolidated VIE. Additionally, the Company's maximum exposure to loss is limited to the carrying value of the equity interest in the counterparty. No arrangements exist where additional financial support would need to be provided by the Company.

The 20% equity interest in the counterparty had minimal value upon execution of the LOA and the Company did not record any amount related to the equity interest as of December 31, 2023. As of December 31, 2023, the counterparty has not achieved the financial milestone and does not have the right to exercise the option.

7. Commitments and Contingencies

Research and Development Agreements

The Company enters into contracts in the normal course of business with CROs for clinical trials, with CMOS or other vendors for preclinical studies, supplies and other services and products for operating purposes. These contracts generally provide for termination on notice or may have a potential termination fee if a purchase order is cancelled within a specified time. As of December 31, 2023 and 2022, there were no amounts accrued related to termination and cancellation charges as the Company does not expect to incur any additional expenses associated with termination and cancellation charges.

License Agreements

The Company enters into license agreements (Note 6), pursuant to which the Company may acquire or license other patents, patent applications or know-how from various third parties to access intellectual property covering product candidates that the Company is developing. Under these acquisitions or licensing agreements, the Company may be liable for certain diligence obligations and payments, which are contingent upon achieving various development, regulatory and commercial milestones. Also, pursuant to the terms of some of these license agreements, when and if commercial sales of a product commence, the Company may be obligated to pay royalties to such third parties on net sales of the respective products. No such milestones were achieved or probable as of December 31, 2023 and 2022.

Legal Contingencies

From time to time, the Company may become involved in legal proceedings arising from the ordinary course of business. The Company records a liability for such matters when it is probable that future losses will be incurred and that such losses can be reasonably estimated. Significant judgment by the Company is required to determine both

probability and the estimated amount. Management is currently not aware of any legal matters that could have a material adverse effect on the Company's financial position, results of operations or cash flows.

Guarantees and Indemnifications

In the normal course of business, the Company enters into agreements that contain a variety of representations and provide for general indemnification. Its exposure under these agreements is unknown because it involves claims that may be made against the Company in the future. To the extent permitted under Delaware law, the Company has agreed to indemnify its directors and officers for certain events or occurrences while the director or officer is, or was serving, at a request in such capacity. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. As of December 31, 2023 and 2022, the Company did not have any material indemnification claims that were probable or reasonably possible and consequently has not recorded related liabilities.

8. Operating Leases

As of December 31, 2023, the current and non-current portions of the total liability for operating leases was $0.3 million and $0.1 million, respectively. As of December 31, 2023 and 2022, the weighted average remaining lease term on the operating lease was 15 and 19 months, respectively. As of December 31, 2023 and 2022, the weighted average incremental borrowing rate used to determine the operating lease liabilities included on the balance sheets was 9.0% and 8.5%, respectively.

Facility leases

South San Francisco

On January 27, 2021, the Company entered into a new lease agreement for office and lab space in South San Francisco, California that included two office suites. The lease terms for the two office suites commenced during July and August 2021, respectively. The term of the lease is 44 months for the first office suite and 43 months for the second office suite with an option to extend the term for an additional two years on the same terms and conditions. This option to extend the lease term was not determined to be reasonably certain and therefore has not been included in the Company's calculation of the associated operating lease liability under ASC 842. The corresponding right-of-use assets and lease liabilities related to the two office suites were recorded on the Company's balance sheet upon the lease commencement date, which was the date the Company was deemed to have obtained control of the premises.

In August 2023, the Company subleased one of its office suites in the South San Francisco lease for 20 months starting from August 2023 for aggregate sublease payments of $0.5 million. The sublease income, while it reduces the rent expense, is not considered in the value of the right-of-use assets or lease liabilities. The Company's sublease income was $0.1 million for the year ended December 31, 2023. The Company did not have any sublease income during the year ended December 31, 2022.

In November 2023, the Company subleased its second office suite in the South San Francisco lease through the end of the lease term in March 2025. The third party agreed to assume all of the Company's obligations under the head lease, including the obligation to make rent payments, as well as all of the Company's obligations under the services agreement associated with the head lease, and to indemnify the Company for all obligations under the head lease and the associated services agreement, in exchange for the Company's payment to the third party of approximately $1.4 million. As the Company was relieved of its primary obligations under the head lease, the Company accounted for the sublease as a lease termination, recording a loss on lease termination of $0.1 million, calculated as the carrying value of the lease liability on the date of termination, net of the payment made to the subtenant for assuming the lease. Additionally, following the sublease, the Company no longer has use of the related leasehold improvements. Therefore, the Company accounted for these assets as abandoned, recording a loss on abandonment of $0.1 million included in restructuring and impairment expenses on the statement of operations and comprehensive loss.

Bayside

On December 16, 2021, the Company entered into a lease agreement with Bayside Area Development, LLC ("Bayside") for 85,165 square feet of office and laboratory space in South San Francisco, CA. The lease for the office and laboratory space commenced in April 2023. The term of the lease was 120 months with the option to extend the term up to an additional ten years. This option to extend the lease term was not determined to be reasonably certain and therefore was not included in the Company's calculation of the associated operating lease liability. During the second quarter of 2023, the Company took possession of the lease and recognized a $32.0 million right-of-use asset and corresponding lease liability upon the lease commencement date. In addition, the Company recognized $27.2 million in leasehold improvements. Bayside provided a tenant improvement allowance of up to $14.9 million, which was fully utilized and recorded in lease liability.

In August 2023, the Company recognized an impairment in conjunction with its restructuring activities related to its Bayside lease (Note 13).

In October 2023, the Company subleased approximately 32,113 square feet of space in the Bayside premises. The term of the sublease commenced on October 26, 2023 and expires on December 31, 2024. Pursuant to the sublease, the subtenant agreed to make rent payments directly to Bayside. The subtenant assumed all rights and obligations of the Bayside lease relative to the subleased premises.

Also in October 2023, the Company entered into an amendment to the Bayside lease to adjust the timeline for certain payments under the lease and to effect the acceleration of the termination date of the Bayside lease to terminate on December 31, 2024, subject to that the ability of Bayside to accelerate the termination date for the premises at its discretion. The Company prepaid all amounts payable during the amended term of the Bayside lease, in an amount equal to $15.9 million, as well as a lease termination payment of $20.8 million. Concurrent with the amendment, the Company sold all furniture, fixtures and equipment residing at the Bayside premises to the landlord for a nominal amount. Following the amendment and sublease, the Company no longer has use of any of the Bayside premises and has no further obligation thereunder.

The Company accounted for the amendment to the Bayside lease as a lease modification, remeasuring the lease liability equal to the present value of the remaining lease payments over the amended term. Additionally, as the subtenant assumed all remaining rights and obligations under the head lease, there is no right-of-use asset or lease liability associated with the subleased space on the Company's balance sheet. In November, the Company determined that it had no use of the Bayside premises and accounted for the remeasured right-of-use asset and related leasehold improvements as abandoned. In the aggregate, the Company recorded a net loss on modification, abandonment and sale of fixed assets of $10.8 million.

As of December 31, 2023, the Company's only operating lease with an associated right-of-use asset and lease liability related to the South San Francisco lease that was subleased without relieving the Company of its primary obligation under the head lease. As of December 31, 2023, the Company had an operating lease right-of-use asset of $0.3 million and operating lease liability of $0.4 million recorded on its balance sheet.

Embedded leases

The Company evaluated its vendor contracts to identify embedded leases, if any, and determined that two agreements with contract manufacturing suppliers constituted a lease under ASC 842 as the Company has the right to substantially all of the economic benefits from the use of the asset and can direct the use of the asset.

On May 10, 2021 and August 30, 2021, the Company and LCGM entered into the LCGM MSA and Statement of Work #3 ("SOW #3"), respectively, for the exclusive use of a manufacturing suite at the LCGM facility. Pursuant to the terms of SOW #3, LCGM agreed to provide the Company with certain dedicated space for the clinical manufacturing, release testing, and product release in the Company's Phase 1/2 CEDAR clinical trial to treat sickle cell disease. The Company concluded that the agreement contained an embedded lease as the Company controlled the use of a dedicated manufacturing suite and the equipment therein. The agreement included fixed lease payments of $5.6 million from inception of lease through April 30, 2023, the expiration date of SOW #3. As of December 31, 2023, the Company does not have any remaining obligations related to SOW #3.

The Company and Explora BioLabs, Inc. ("Explora") entered into a License Service Agreement and Master Services Agreement (together, the "Explora Agreements") on November 17, 2021 and December 16, 2021, respectively. Pursuant to the terms of the Explora Agreements, Explora agreed to provide a certain dedicated space to perform in vitro or in vivo studies, obtain or house research animals, and provide scientific or technical consultation to the Company. The Company concluded that the Explora Agreements contained an embedded lease as the Company controlled the use of a dedicated manufacturing suite and the equipment therein. The Explora Agreements contained fixed lease payments of $0.7 million from inception of lease through November 2023. As of December 31, 2023, the Company does not have any remaining obligations related to the Explora embedded lease.

As of December 31, 2023, the Company did not have any operating lease right-of-use assets and operating lease liabilities related to the embedded leases recorded on its balance sheet.

Operating Lease Obligations

As of December 31, 2023, the future minimum lease payments for the Company's operating leases for each of the years ending December 31 were as follows (in thousands):

	Amount
2024	304
2025	78
Total undiscounted lease payments	382
Present value adjustment	(20)
Total net lease liabilities	$ 362

Lease expense was $7.3 million and $6.7 million for the years ended December 31, 2023 and 2022, respectively.

Under the terms of the remaining lease agreements, the Company is also responsible for certain variable lease payments that are not included in the measurement of the lease liability. Variable lease payments for operating leases were $2.2 million and $1.3 million for the years ended December 31, 2023 and 2022, respectively, including non-lease components such as common area maintenance fees, taxes, and insurance.

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

	December 31, 2023
Cash paid for amounts included in the measurement of lease liabilities	
Operating cash flows under operating leases	$ 44,123

9. Common Stock

As of December 31, 2023 and 2022, the Company was authorized to issue 300,000,000 shares of its common stock with $0.00001 par value per share. Each share of the Company's common stock is entitled to one vote. In connection with the IPO in June 2021, all outstanding shares of redeemable convertible preferred stock were converted into 30,761,676 shares of common stock. The IPO closed on June 29, 2021, pursuant to which the Company issued and sold 14,000,000 shares of its common stock at a public offering price of $17.00 per share.

On June 29, 2021, the underwriters also exercised their option to purchase an additional 2,100,000 shares of common stock at the IPO price, less the underwriting discounts and commissions. The closing of the offering of the additional shares occurred on July 2, 2021. The Company issued and sold 2,100,000 shares of its common stock at a public offering price of $17.00 per share.

Shares Reserved for Future Issuance

As of December 31, 2023 and 2022, the Company reserved common stock for future issuances as follows:

	December 31, 2023	December 31, 2022
Outstanding stock option awards	5,376,373	7,755,303
Shares available for future stock option grants	10,798,817	5,382,907
ESPP shares available for future grants	1,253,729	754,951
Total shares reserved for future issuance	17,428,919	13,893,161

Founders' and Investor's Restricted Common Stock

In March 2020, the Board approved and in April 2020, the Company issued 6,081,413 shares of its common stock to its founders and 2,467,104 shares of its common stock to its investor at the purchase price of $0.00002 per share. As of December 31, 2020, the investor's shares were fully vested and a portion of the shares issued were subject to the Company's option to repurchase per the Stanford Adjustment Repurchase Right, as described below.

The shares of the Company's common stock issued to its founders for their services as an employee, advisor, or consultant vest monthly over four years with one year cliff from the vesting commencement date. The vesting commencement date was the date of the initial closing of the Series A preferred stock financing or June 24, 2020. Pursuant to the restricted stock purchase agreements with each of the founders, the vesting of the founders' common stock shares could be accelerated upon the occurrence of certain events, including signing of the term sheet for the license with Stanford, a change in control, or if the founder's service is terminated by the Company without cause. The Company signed the term sheet with Stanford in June 2020, and as a result, an aggregate of 912,212 shares of founders' common stock vested pursuant to the acceleration terms.

If a founder terminates the service relationship with the Company during the vesting period, the Company may repurchase any unvested restricted common stock at the price per share equal to the lower of (i) the original purchase price, subject to adjustment in the event of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split, or (ii) the current fair market value as of the date the Company elects to exercise its Stanford Adjustment Repurchase Right, as described below. The repurchase right lapses in 180 days after the termination of the founder's service or employment. During the vesting term, holders of founders' common stock awards are deemed to be common stockholders and have the right to receive dividends and voting rights.

The founders' shares of common stock are also subject to the Company's option to repurchase per the Stanford Adjustment Repurchase Right, as described below.

The Company accounts for shares issued to founders as equity compensation awards and the estimated fair value at the grant date was minimal. During the year ended December 31, 2023, the Company repurchased 152,694 shares of founders' common stock awards. 431,863 and 1,938,430 shares of founders' common stock awards were unvested and expected to vest in 0.5 years and 1.5 years as of December 31, 2023 and 2022, respectively.

Stanford Adjustment Repurchase Right

Upon the issuance of shares of common stock to Stanford pursuant to the License Agreement, as discussed in Note 5, the Company has a right to repurchase from each founder and an investor a number of shares of common stock equal to the number of shares issued to Stanford multiplied by the applicable number of shares issued to the founder or investor, as applicable, divided by 7,273,848 shares (a fully diluted number of shares of the Company at the end of March 2020, after the founders' and the investors' shares were approved by the board of directors). The Stanford Adjustment Repurchase Right may be exercised by the Company within six months following the date of the issuance of the shares of common stock to Stanford. The repurchase price per share is equal to the lower of (i) the purchase price, subject to adjustment in the event of any reorganization, recapitalization, reclassification, etc., or (ii) the current fair market value as of the date the Company elects to exercise its Stanford Adjustment Repurchase Right.

On May 7, 2021, the Company issued an aggregate of 640,861 shares of the Company's common stock to Stanford and certain individuals designated by Stanford in consideration for rights granted to the Company under the Company's exclusive license agreement.

On June 18, 2021, the Company exercised its right to repurchase an aggregate of 624,845 shares from each founder and investor under the Stanford Adjustment Repurchase Right. As of December 31, 2023, the Company has not exercised the right to purchase the remaining 16,016 shares.

The Company accounts for the founders and investors' shares of restricted common stock as equity share-based awards.

10. Equity Incentive Plans

2020 Stock Option and Grant Plan

Prior to the effectiveness of the registration statement on Form S-1 (File No. 333-256838) for its IPO, the Company granted share-based awards under the 2020 Stock Option and Grant Plan, as amended (the "2020 Plan"). The Company was authorized to grant under the 2020 Plan incentive stock options, nonqualified stock options, restricted stock awards, restricted stock units and other share-based awards to the Company's officers, employees, directors and consultants. Options under the 2020 Plan could be granted for periods of up to 10 years and at prices no less than 100.0% of the estimated fair value of the shares on the date of grant as determined by the Board, provided, however, that the exercise price of an incentive stock option granted to a 10.0% stockholder shall not be less than 110.0% of the estimated fair value of the shares on the date of grant and the option is not exercisable after the expiration of five years from the date of grant. Options generally vest monthly over four years with or without one year cliff vesting. Per the 2020 Plan, granted options may be early exercised prior to vesting and the Company will issue shares of restricted stock upon the early exercise with vesting terms consistent with the original grant. Upon completion of the Company's IPO, the remaining shares available for issuance under the 2020 Plan were retired, and the Company no longer grants awards pursuant to the 2020 Plan.

2021 Stock Option and Incentive Plan

In June 2021, the Company's board of directors approved the 2021 Stock Option and Incentive Plan (the "2021 Plan") that became effective immediately prior to the date when the Company's prospectus was declared effective by the SEC on June 24, 2021. The Company initially reserved 5,636,000 shares of common stock for issuance of awards under the 2021 Plan. The 2021 Plan provides that the number of shares reserved and available for issuance under the plan will automatically increase each January 1, beginning on January 1, 2022, by 5% of the outstanding number of shares of the Company's common stock on the immediately preceding December 31, or such lesser number of shares as determined by the Company's compensation committee. On January 1, 2022 and 2023, the number of shares of common stock available under the 2021 Plan increased by 2,900,541 shares and 2,911,088 shares, respectively, pursuant to the evergreen provision of the 2021 Plan. The option exercise price of each option will be determined by the Company's compensation committee but generally may not be less than 100% of the fair market value of the Company's common stock on the date of grant. The term of each option will be fixed by the Company's compensation committee and may not exceed ten years from the date of grant. The grant date fair value of all awards made under the 2021 Plan and all other cash compensation paid by the Company to any non-employee director for services as a non-employee director in any calendar year may not exceed $1.0 million for the first year of service and $750.0 thousand for each year of service thereafter.

As of December 31, 2023, there were 10,798,817 shares available for future issuance under the 2021 Plan.

Restricted Stock Awards

During the year ended December 31, 2020, the Company issued 832,983 shares as restricted stock awards under the 2020 Plan. The purchase price of the restricted common stock awards was fair value as determined by the Board at the issuance date. The shares vest monthly over four years with the one-year cliff vesting from the grant date. Upon termination of employment, the Company has the right to repurchase any unvested restricted shares. The repurchase price for unvested shares of common stock will be the lower of (i) the fair market value on the date of

repurchase or (ii) their original purchase price. There were no shares issued during the years ended December 31, 2023 and 2022.

The Company accounted for restricted stock awards as early exercised options and recognized a liability in other liabilities when cash was received for the purchase of shares of restricted stock awards. As shares of restricted stock awards vest, the Company reclassified the liability to common stock and additional paid in capital. As of December 31, 2023 and 2022, the Company recorded a minimal liability for restricted stock awards included in accrued expenses and other current liabilities.

There were 163,830 and 5,140 shares of restricted stock award shares canceled and repurchased as of December 31, 2023 and 2022, respectively. There were 751,758 and 553,443 shares of restricted stock vested as of December 31, 2023 and 2022, respectively.

Employee Stock Purchase Plan

In June 2021, the Company's board of directors and stockholders approved the 2021 Employee Stock Purchase Plan (the "ESPP") which became effective upon the IPO. Pursuant to the ESPP, certain employees of the Company, excluding consultants and non-employee directors, are eligible to purchase common stock of the Company at a reduced rate during offering periods. The ESPP permits participants to purchase common stock using funds contributed through payroll deductions, subject to a calendar year limit of $25,000 and at a purchase price of 85% of the lower of the fair market value of the Company's common stock on the first trading day of the offering period or on the applicable purchase date, which will be the final trading day of the applicable purchase period. The ESPP has two annual purchase periods extending from June to November and December to May.

As of December 31, 2023, no employees were enrolled in the ESPP and the Company did not record a liability for ESPP in accrued liabilities as of December 31, 2023. The Company had $0.1 million in accrued liabilities as of December 31, 2022. The Company issued 65,222 shares and 333,155 shares under the ESPP during the years ended December 31, 2023 and 2022, respectively.

Effective January 1, 2022 and 2023, the number of shares of common stock available under the 2021 ESPP increased by 564,000 shares pursuant to the evergreen provision of the 2021 ESPP.

	Year Ended December 31,	
	2023	2022
Expected volatility	75.00% - 79.00%	73.00% - 75.00%
Expected dividend yield	0%	0%
Expected term (in years)	0.5	0.5
Risk-free interest rate	4.65% - 5.44%	0.10% - 4.65%

Incentive Stock Options and Nonqualified Stock Options

Stock options issued under the 2020 Plan and 2021 Plan, generally, vest over a four-year period and expire ten years from the date of grant. Certain options provide for accelerated vesting if there is a change in control, as defined in the individual award agreements.

The Company used the Black-Scholes option pricing model to estimate stock-based compensation expense for stock option awards granted during the periods presented, with the following assumptions.

	Year Ended December 31,	
	2023	2022
Expected volatility	77.00% - 79.00%	74.00% - 75.00%
Expected dividend yield	0%	0%
Expected term (in years)	6.04	5.97- 6.01
Risk-free interest rate	3.50% - 4.12%	1.91% - 4.23%

A summary of option activity under the 2020 Plan and the 2021 Plan during the year ended December 31, 2023 is as follows:

	Number of Options	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2022	7,755,303	$ 8.47	8.7	$ 794
Options granted - 2021 Plan	3,223,400	$ 2.22		
Options exercised	(101,900)	$ 0.98		
Options cancelled	(5,500,430)	$ 6.79		
Outstanding as of December 31, 2023	5,376,373	$ 6.58	6.1	$ 847
Exercisable	3,812,992	$ 6.42	5.2	$ 664
Vested and expected to vest as of December 31, 2023	5,376,373	$ 6.58	6.1	$ 847

Aggregate intrinsic value represents the difference between the fair value of the underlying common stock and the exercise price as of December 31, 2023. The weighted-average grant date fair value of options granted during the December 31, 2023 was $1.56 per share.

The intrinsic value of the stock options exercised was $0.1 and $0.2 million for the years ended December 31, 2023 and 2022, respectively.

Early Exercise of Stock Options

The terms of the 2020 Plan permit the exercise of options granted prior to vesting, subject to required approvals. The unvested shares are subject to the repurchase right upon termination of employment at the original purchase price. The repurchase right lapses in 180 days after the termination of the employee's employment. Shares purchased by employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be issued until those shares vest according to their respective vesting schedules. Cash received for early exercised stock options is recorded as other liabilities on the balance sheet and is reclassified to common stock and additional paid-in capital as such shares vest. During the years ended December 31, 2023 and 2022, the Company repurchased 227,792 and 189,414 shares that were previously early exercised.

At December 31, 2023 and 2022, 68,868 and 554,695 shares, respectively, remained subject to the right of repurchase as a result of the early exercised stock options. The remaining liability related to early exercised shares as of December 31, 2023 and 2022 was minimal and was recorded in accrued expenses and other current liabilities in the balance sheets.

Stock-Based Compensation Expense

The following table presents the components of stock-based compensation expense for the Company's stock-based awards for the periods presented (in thousands):

	Year Ended December 31,	
	2023	2022
Restricted stock awards and founders' common stock awards	$ 7	$ 11
ESPP	96	391
Stock options	10,471	13,132
Total stock-based compensation expense	$ 10,574	$ 13,534

The above stock-based compensation expense also includes the expenses of $2.6 million and $2.2 million related to stock options issued to non-employees during the years ended December 31, 2023 and 2022, respectively.

The following table presents the classification of stock-based compensation expense for the Company's stock-based awards for the periods presented (in thousands):

	Year Ended December 31,	
	2023	2022
Research and development expenses	$ 1,904	$ 5,317
General and administrative expenses	8,670	8,217
Total stock-based compensation expense	$ 10,574	$ 13,534

As of the years ended December 31, 2023 and 2022, there was $7.4 million and $31.0 million, respectively, of unrecognized stock-based compensation expense related to the employee and non-employee awards, which is expected to be recognized over a weighted-average period of 1.5 years and 2.6 years , respectively.

11. Net Loss Per Share Attributable to Common Stockholders

The following table sets forth the computation of basic and diluted net loss per share attributable to common stockholders, which excludes shares which are legally outstanding, but subject to repurchase by the Company (in thousands, except share and per share amounts):

	Year Ended December 31,	
	2023	2022
Numerator:		
Net loss	$ (124,651)	$ (101,052)
Denominator:		
Weighted-average common shares outstanding	58,046,553	58,111,437
Less: weighted-average unvested restricted shares and shares subject to repurchase	(1,031,394)	(3,237,762)
Weighted-average shares used to compute basic and diluted net loss per share attributable to common stockholders	57,015,159	54,873,675
Net loss per share attributable to common stockholders — basic and diluted:	$ (2.19)	$ (1.84)

Anti-dilutive Outstanding Shares or Equivalents

The following outstanding options, unvested shares, and ESPP shares were excluded (as common stock equivalents) from the computation of diluted net loss per common share for the periods presented as their effect would have been antidilutive (in thousands):

	Year Ended December 31,	
	2023	2022
Options to purchase common stock	5,376,373	7,755,303
Common stock subject to vesting or repurchase	565,667	2,767,526
Employee Stock Purchase Plan shares	—	168,080
Total	5,942,040	10,690,909

12. Income Taxes

No provision for income taxes was recorded for the years ended December 31, 2023 and 2022. The Company has incurred net operating losses only in the United States since its inception. The Company has not reflected any benefit of such net operating loss carryforwards in the financial statements.

A reconciliation of the U.S. federal statutory income tax rate to the Company's effective income tax rate was as follows:

	Year Ended December 31,	
	2023	2022
Federal statutory income tax rate ate	21.00 %	21.00 %
State taxes	1.01	1.10
Others	(0.06)	(0.69)
Research and development credits	1.00	1.11
Transaction costs	(1.01)	—
Lease Modification	3.27	—
Interest expense	—	—
Stock-based compensation	(1.52)	(0.97)
Change in valuation allowance	(23.69)	(21.55)
Provision for taxes	0.00 %	0.00 %

Net deferred tax assets and liabilities consisted of the following (in thousands):

	Year Ended December 31,	
	2023	2022
Deferred tax assets:		
Net operating losses - non-current	$ 30,820	$ 15,940
Capitalized R&D	14,493	13,815
General business credit - non-current	7,201	5,699
Operating lease right-of-use assets	88	1,220
Lease termination costs	6,621	—
Stock based compensation	2,017	1,703
Accruals and reserves	295	735
Fixed assets	6,161	170
Other	3	3
Gross deferred tax assets	67,699	39,285
Valuation allowance	(67,626)	(38,110)
Net deferred tax assets	73	1,175
Fixed asset basis	—	—
Operating lease liabilities	(73)	(1,175)
Other	—	—
Gross deferred tax liabilities	(73)	(1,175)
Valuation allowance	$ —	$ —

Net operating losses and tax credit carryforwards were as follows as of December 31, 2023 (dollars in thousands):

	Year Ended December 31, 2023	
	Amount	Expiration Years
Net operating losses, federal (starting from January 1, 2018)	$ 146,450	Do Not Expire
Net operating losses, state	29	2039 - 2043
Tax credits, federal	6,395	2041 - 2043
Tax credits, state	4,716	Do Not Expire

Utilization of the net operating loss carryforwards and research credit carryforwards may be subject to an annual limitation due to the ownership percentage change limitations provided by the Internal Revenue Code, as amended, ("IRC"), and similar state provisions. Annual limitations may result in the expiration of the net operating losses and tax credit carryforwards before they are utilized. The Company did not perform an IRC Section 382 analysis and any previous ownership changes may result in a limitation that will reduce the total amount of net operating loss and tax credit carryforwards disclosed that can be utilized. Subsequent ownership changes may affect the limitation in future years.

During the years ended December 31, 2023 and 2022, the Company recorded a full valuation allowance on federal and state deferred balances since management does not forecast the Company to be in a profitable position in the near future. Changes in the valuation allowance for deferred tax assets during the years ended December 31, 2023 and 2022 related primarily to the increases in net operating loss carryforwards and research and development tax credit carryforwards and were as follows (in thousands):

	Year Ended December 31,	
	2023	2022
Valuation allowance at the beginning of the year	$ 38,110	$ 16,332
Increases recorded to income tax provision	29,516	21,778
Valuation allowance at the end of the year	$ 67,626	$ 38,110

The Company's U.S. federal and state income tax returns are generally subject to tax examinations for the tax years from inception through December 31, 2022. There are currently no pending income tax examinations. To the extent the Company has tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by the Internal Revenue Service and state tax authorities to the extent utilized in a future period.

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

	Year Ended December 31,	
	2022	2022
Balance at beginning of year	$ 2,701	$ 1,407
Additions based on tax positions related to current year	899	1,862
Reduction for prior period positions	(42)	(568)
Unrecognized tax benefit-December 31	$ 3,558	$ 2,701

The entire amount of the unrecognized tax benefits would not impact the Company's effective tax rate if recognized. The Company's policy is to record interest and penalties related to income taxes as part of its income tax provision. The Company has elected to include interest and penalties as a component of tax expense. During the years ended December 31, 2023 and 2022, the Company did not recognize accrued interest and penalties related to unrecognized tax benefits. The Company does not anticipate that the amount of existing unrecognized tax benefits will significantly increase or decrease during the next 12 months.

13. Restructuring Activities

In February 2023, the Company's board of directors approved a restructuring plan (the "First Restructuring Plan") to reduce the Company's operating costs and better align its workforce with the needs of its business. The First Restructuring Plan eliminated approximately 50% of the Company's workforce.

Employees affected by the First Restructuring Plan obtained involuntary termination benefits that are provided pursuant to a one-time benefit arrangement. For employees who were notified of their termination in February 2023 and had no requirements to provide future service, the Company recognized the liability for the termination benefits in full at fair value in February 2023. For employees who were required to render services beyond a minimum retention period to receive their one-time termination benefits, the Company recognized the termination benefits ratably over their future service periods. The service periods began in February 2023 and ended at various dates

through June 2023. The Company has incurred approximately $3.4 million of employee termination benefits expense to implement the First Restructuring Plan and does not have any remaining obligations as of December 31, 2023.

In August 2023, the Company's board of directors approved a second restructuring plan (the “Second Restructuring Plan”; together with the First Restructuring Plan, the "Restructuring Plans") to further reduce the Company's operating costs and align its workforce with the needs of its business. The Second Restructuring Plan eliminated approximately an additional 33.1% of its total workforce, and in aggregate, 78.1% of its total workforce. Employees affected by the Second Restructuring Plan obtained involuntary termination benefits that are provided to an ongoing benefit arrangement. Accordingly, the Company recognized termination benefits upon announcement of termination to all employees. The Company has incurred approximately $3.5 million and has a remaining liability of $1.0 of employee termination benefits expense to implement the Second Restructuring Plan.

The Company determined that it had set a precedence for providing terminated employees with severance benefits, and accordingly, it had a de facto severance plan. In September 2023, the Company determined that it was reasonably likely to incur additional employee termination benefits expense for its remaining employees within the next twelve months. It recognized termination benefits for the remaining employees totaling $1.0 million, of which $0.6 million was paid during the year ended December 31, 2023.

The following table summarizes the Company’s restructuring liability that is included in accrued expenses and other current liabilities in the accompanying balance sheet:

	Year Ended December 31, 2023
Accrued employee termination benefits beginning balance	$ —
Employee termination benefits charges incurred during the period	8,100
Amounts paid or otherwise settled during the period	(6,565)
Accrued employee termination benefits as of December 31, 2023	$ 1,535

In addition, the board of directors determined that it was in the best interests of the Company and its stockholders to put in place arrangements designed to provide that the Company will have the continued dedication and commitment of those employees, including executives, determined to be key to the Company’s planned go-forward operations. In March 2023, the Board approved, and management implemented, a retention program for certain employees staying with the Company which includes cash retention bonuses totaling $4.2 million for certain retained employees provided that they remain within the Company through the requisite service period, which is the earlier of March 1, 2024 or the termination date upon a Restructuring Plan. As a result, these cash retention bonuses are being accrued over the requisite service period, with $3.7 million recognized during the year ended December 31, 2023 and included within general and administrative and research and development expenses in the statements of operations. During the year ended December 31, 2023, the Company paid $3.2 million in retention bonuses to employees for fulfilling their requisite service periods.

In June 2023, the Company committed to a plan to sell certain of its lab equipment associated with the Restructuring Plan. During the year ended December 31, 2023, the Company implemented a plan to sell its remaining lab equipment as well as other fixed assets not transferred to the Bayside lease. As of December 31, 2023, the Company disposed of all of its assets previously meeting the criteria of held for sale. These assets were recognized at the lower of cost or fair value less cost to sell using market approach. The fair value of these assets were classified as Level 3 in the fair value hierarchy due to a mix of unobservable inputs utilized such as independent research in the market as well as actual quotes from market participants. Subsequent changes to the estimated selling price of assets held for sale are recorded as gains or losses to the statements of operations and comprehensive loss wherein the recognition of subsequent gains is limited to the cumulative loss previously recognized. During the year ended December 31, 2023, the Company recorded impairment charges and loss on disposal of assets, which was included in restructuring and impairment costs in the statements of operations and comprehensive loss, of $7.0 million.

In connection with the Restructuring Plans, the Company has determined that it will not utilize the Bayside and South San Francisco leases for purposes of its own operations. In August 2023, the Company subleased one of its office suites in the South San Francisco lease for 20 months starting from August 2023 for aggregate sublease payments of $0.5 million. In October 2023, the Company entered into a sublease agreement and amendment to the original master lease with the landlord to accelerate the termination date of the Bayside lease and in November 2023, the Company entered into an amendment to the original lease agreement to reassign the second suite of the South San Francisco lease (Note 8). The Company performed a recoverability test by comparing the future cash flows attributable to the asset group to the carrying value of the long-lived assets. Future cash flows were estimated using comparable laboratory and office facilities discounted at a market discount rate over the remaining term of the Company's lease. During the year ended December 31, 2023, the Company recorded a non-cash impairment of $46.9 million, to the right-of-use asset and related leasehold improvement, which was included in restructuring and impairment costs in the statements of operations and comprehensive loss.

The Company entered into an asset purchase agreement with Maro pursuant to which the Company sold to the counterparty, concurrently with the execution of the APA, certain assets related to the Company’s non-genotoxic conditioning technology in exchange for upfront consideration of $0.5 million. Additional consideration included certain contingent milestone payments totaling up to approximately $1.0 million in the aggregate, as well as royalties on net sales by Maro of certain products incorporating the acquired technology, and potential fees upon the completion of certain transactions by Maro. The APA also provided for reimbursement of certain research and development amounts incurred prior to closing of approximately $0.6 million.

In addition, the Company also entered into an LOA with Kamau Therapeutics, Inc. (“Kamau”) pursuant to which the Company exclusively licensed to Kamau, and granted the counterparty an option to acquire, certain intellectual property and materials related to the Company’s nulabeglogene autogedtemcel (nula-cel) program and related pre-clinical platform assets. Exercise of the option is contingent on Kamau timely achieving a financing milestone, and all rights to the intellectual property and materials will revert to the Company if the milestone is not achieved or if the counterparty elects not to exercise the option. In return for this license and option, the Company received an equity interest in the counterparty representing 20% of all outstanding shares on a fully diluted basis.

14. Subsequent Events

The Company has evaluated all subsequent events that occurred after the date of the accompanying financial statements and determined that there were no events or transactions during this subsequent event reporting period which require recognition or disclosure in our financial statements other than those disclosed elsewhere within this Form 10-K.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Lenz Therapeutics, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Lenz Therapeutics, Inc. (the Company) as of December 31, 2022 and 2023, the related statements of operations and comprehensive loss, convertible preferred and common stock and stockholders' deficit and cash flows for the years then ended and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2023, and the results of its operations and its cash flows for each of the years then ended in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

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

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

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

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2022.

San Diego, California

March 21, 2024

LENZ THERAPEUTICS, INC.
BALANCE SHEETS
(in thousands, except for shares and par value)

	December 31,	
	2022	**2023**
Assets		
Current assets:		
Cash and cash equivalents	$ 44,441	$ 35,140
Marketable securities	—	30,654
Prepaid expenses and other current assets	2,200	1,450
Total current assets	46,641	67,244
Property and equipment, net	39	54
Operating lease right-of-use asset	240	318
Deferred offering costs	—	2,739
Security deposit	31	21
Total assets	$ 46,951	$ 70,376
Liabilities, convertible preferred and common stock and stockholders' deficit		
Current liabilities:		
Accounts payable	$ 4,755	$ 5,711
Accrued liabilities	4,744	12,803
Total current liabilities	9,499	18,514
Operating lease liability, net	147	192
Other noncurrent liabilities	66	121
Preferred stock warrants liability	994	871
Total liabilities	10,706	19,698
Commitments and contingencies (Note 6)		
Convertible preferred and common stock:		
Series A convertible preferred stock, par value of $0.001 per share; 22,791,777 shares authorized, 21,977,282 shares issued and outstanding at December 31, 2022 and 2023, respectively	44,621	44,621
Series A-1 convertible preferred stock, par value of $0.001 per share; 2,950,548 shares authorized, and 2,950,548 issued and outstanding at December 31, 2022 and 2023, respectively	9,893	9,893
Series B convertible preferred stock, par value of $0.001 per share; 28,019,181 shares authorized, no shares and 28,019,181 issued and outstanding at December 31, 2022 and 2023, respectively	—	82,976
Class B convertible common stock, par value of $0.001 per share; 2,744,184 shares authorized, and 2,744,184 shares issued and outstanding at December 31, 2022 and 2023, respectively	5,900	5,900
Total convertible preferred and common stock	60,414	143,390
Stockholders' deficit:		
Common stock, par value of $0.001 per share; 79,218,247 Class A shares authorized, and 9,915,013 shares issued at December 31, 2022 and 2023, respectively, and 9,629,171 and 9,739,818 shares outstanding at December 31, 2022 and 2023, respectively	10	10
Additional paid-in capital	1,098	2,517
Accumulated deficit	(25,277)	(95,245)
Accumulated other comprehensive income	—	6
Total stockholders' deficit	(24,169)	(92,712)
Total liabilities, convertible preferred and common stock and stockholders' deficit	$ 46,951	$ 70,376

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

LENZ THERAPEUTICS, INC.
STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(in thousands, except share and per share data)

	Year Ended December 31,	
	2022	**2023**
Revenue:		
License revenue	$ 15,000	$ —
Total revenue	15,000	—
Operating expenses:		
Research and development	21,125	59,504
Selling, general and administrative	4,358	12,925
Total operating expenses	25,483	72,429
Loss from operations	(10,483)	(72,429)
Other income:		
Other	15	93
Interest income	4	2,189
Total other income, net	19	2,282
Net loss before income taxes	(10,464)	(70,147)
Income tax expense (benefit)	347	(179)
Net loss	(10,811)	(69,968)
Other comprehensive income:		
Unrealized gain on marketable securities	—	6
Comprehensive loss	$ (10,811)	$ (69,962)
Net loss per share attributable to Class A common stockholders, basic and diluted	$ (1.14)	$ (7.22)
Weighted-average Class A common shares outstanding, basic and diluted	9,455,393	9,689,045

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

LENZ THERAPEUTICS, INC.
STATEMENTS OF CONVERTIBLE PREFERRED AND COMMON STOCK AND STOCKHOLDERS' DEFICIT
(in thousands, except share data)

	Convertible Preferred and Common Stock								Stockholders' Deficit					
	Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B Convertible Preferred Stock		Class B Convertible Common Stock		Class A Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Stockholders' Deficit
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance as of December 31, 2021	12,077,942	$ 24,381	—	$ —	—	$ —	2,744,184	$ 5,900	9,357,145	$ 1	$ 251	$ (14,466)	$ —	$ (14,214)
Issuance of Series A convertible preferred stock (Tranche 3), net of issuance costs	9,899,340	20,240	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series A-1 convertible preferred stock, net of issuance costs	—	—	2,950,548	9,893	—	—	—	—	—	—	—	—	—	—
Exercise of stock options	—	—	—	—	—	—	—	—	272,026	9	126	—	—	135
Share-based compensation	—	—	—	—	—	—	—	—	—	—	721	—	—	721
Net loss	—	—	—	—	—	—	—	—	—	—	—	(10,811)	—	(10,811)
Balance as of December 31, 2022	21,977,282	$ 44,621	2,950,548	$ 9,893	—	$ —	2,744,184	$ 5,900	9,629,171	$ 10	$ 1,098	$ (25,277)	$ —	$ (24,169)
Issuance of Series B convertible preferred stock, net of issuance costs	—	—	—	—	28,019,181	82,976	—	—	—	—	—	—	—	—
Vesting of early exercised stock options	—	—	—	—	—	—	—	—	110,647	—	76	—	—	76
Share-based compensation	—	—	—	—	—	—	—	—	—	—	1,343	—	—	1,343
Unrealized gain on marketable securities	—	—	—	—	—	—	—	—	—	—	—	—	6	6
Net loss	—	—	—	—	—	—	—	—	—	—	—	(69,968)	—	(69,968)
Balance as of December 31, 2023	21,977,282	$ 44,621	2,950,548	$ 9,893	28,019,181	$ 82,976	2,744,184	$ 5,900	9,739,818	$ 10	$ 2,517	$ (95,245)	$ 6	$ (92,712)

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

LENZ THERAPEUTICS, INC.
STATEMENTS OF CASH FLOWS
(in thousands)

	Year Ended December 31,	
	2022	**2023**
Cash flows from operating activities		
Net loss	$ (10,811)	$ (69,968)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	8	15
Amortization of premiums and discounts on marketable securities	—	(1,057)
Change in fair value of preferred stock warrants	(21)	(123)
Share-based compensation expense	721	1,343
Changes in operating assets and liabilities:		
Prepaid expenses and other current assets	(2,112)	761
Accounts payable	4,295	856
Accrued liabilities	3,858	7,783
Security deposit	(29)	10
Net cash used in operating activities	(4,091)	(60,380)
Cash flows from investing activities		
Purchases of marketable securities	—	(52,091)
Proceeds from maturities of marketable securities	—	22,500
Purchases of property and equipment	(37)	(30)
Net cash used in investing activities	(37)	(29,621)
Cash flows from financing activities		
Proceeds from issuance of Series A, Series A-1, and Series B convertible preferred stock, net of issuance costs	30,133	82,976
Deferred offering costs	—	(2,479)
Proceeds from exercises of stock options	129	203
Net cash provided by financing activities	30,262	80,700
Net increase (decrease) in cash	26,134	(9,301)
Cash and cash equivalents, beginning of the year	18,307	44,441
Cash and cash equivalents, end of the period	$ 44,441	$ 35,140
Supplemental disclosure of non-cash investing and financing information		
Right-of-use assets obtained in exchange for operating lease liabilities	$ 311	$ 190
Deferred offering costs included in accounts payable and accrued expenses	$ —	$ 260

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

1. Organization and Liquidity

Description of the Business

Lenz Therapeutics, Inc. (Lenz Therapeutics or the Company), previously known as Presbyopia Therapies, Inc., became a corporation in Delaware on October 28, 2020, upon the filing of a Certificate of Conversion to convert Presbyopia Therapies, LLC, a Delaware limited liability company (formed in September 2013) to a Delaware corporation.

Lenz Therapeutics is headquartered in Del Mar, California. The Company is a late-stage clinical company developing innovative ophthalmic pharmaceutical products.

Reverse Merger Transaction

On March 21, 2024, Graphite Bio, Inc., a Delaware corporation ("Graphite") and the Company completed a merger transaction in accordance with the terms and conditions of the Agreement and Plan of Merger (the "Merger Agreement") dated November 14, 2023, pursuant to which, among other matters, Generate Merger Sub, Inc., a wholly-owned subsidiary of Graphite ("Merger Sub"), merged with and into the Company, with the Company surviving the merger as the surviving corporation and a wholly-owned subsidiary of Graphite ("the Merger"). Additionally, Graphite changed its name to "LENZ Therapeutics, Inc."

In connection with the Merger, Graphite concurrently entered into a subscription agreement (the "Subscription Agreement") with certain institutional investors (the "PIPE investors") pursuant to which, among other things, Graphite agreed to issue to the PIPE investors shares of Graphite common stock immediately following the Merger in a private placement transaction for an aggregate purchase price of $53.5 million, which amount may be increased to up to $125 million through additional subscriptions under the Subscription Agreement from additional PIPE investors (the "Graphite private placement").

Graphite assumed each outstanding and unexercised option to purchase the Company's common stock, whether vested or not vested, and each outstanding and unexercised warrant to purchase the Company's common stock or preferred stock, which became options and warrants to purchase shares of Graphite common stock. Subsequently, at the effective time of the Merger, each outstanding share of the Company's common stock and preferred stock, and options and warrants to purchase the Company's common stock was converted into the right to receive or purchase 0.2022 shares of Graphite's common stock, which resulted in the issuance by Graphite of an aggregate of 15,409,184 shares of, and options and warrants to purchase, Graphite common stock to the stockholders, option holders, and warrant holders of the Company. Immediately following the consummation of the Merger and Graphite private placement, the Company, Graphite stockholders, and the PIPE investors collectively owned approximately 56%, 31%, and 13% of the combined company, respectively, on a fully diluted basis.

Liquidity

The Company has incurred net losses and negative cash flows from operations since inception and as of December 31, 2023, had an accumulated deficit of $95.2 million. The Company incurred net losses of $10.8 million and $70.0 million during the years ended December 31, 2022 and 2023, respectively.

The Company expects to incur additional losses in the future as it continues its research and development efforts, advances its product candidates through clinical development, seeks regulatory approval, prepares for commercialization, hires additional personnel, protects its intellectual property, and grows its business. The Company may need to raise additional capital to support its continuing operations and pursue its long-term business plan, including the development and commercialization of its product candidates, if approved. Such activities are subject to significant risks and uncertainties.

As of December 31, 2023, the Company had cash, cash equivalents, and marketable securities of $65.8 million, which is available to fund future operations. In connection with the Merger, the Company completed the Graphite

private placement for gross proceeds of $53.5 million and received approximately $115.0 million from the Merger in March 2024. The Company believes that its existing cash, cash equivalents, and marketable securities as of December 31, 2023 in addition to the funds received in connection with the Merger, will be sufficient to support operations for at least the next 12 months from the date these financial statements were available to be issued.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements were prepared based on the accrual method of accounting in accordance with U.S. generally accepted accounting principles (GAAP). Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification (ASC) and Accounting Standards Update (ASU) of the Financial Accounting Standards Board (FASB).

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Estimates used in preparing the accompanying financial statements include, but are not limited to, estimates related to the research and development accruals, preferred stock warrants liability, share-based compensation, and the valuation of deferred tax assets and liabilities. Although actual results could differ from those estimates, management does not believe that such differences would be material.

Concentration of Credit Risk and Other Risks and Uncertainties

Financial instruments, which potentially subject the Company to a concentration of credit risk, consist primarily of cash and cash equivalents and marketable securities. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less at the date of purchase to be cash equivalents. The Company deposits its cash primarily in a traditional checking and savings accounts with a financial institution and does not have restricted cash.

Marketable Securities

The Company classifies marketable securities as available-for-sale, as the sale of such investments may be required prior to maturity to implement management strategies, and therefore has classified all marketable securities with maturity dates beyond three months at the date of purchase as current assets in the accompanying balance sheets. As of December 31, 2023, the Company had no intent to sell any marketable securities prior to maturity. Marketable securities classified as available-for-sale are carried at fair value with the unrealized gains and losses included in other comprehensive income as a component of stockholders' deficit until realized. Any premium or discount arising at purchase is amortized and/or accreted to interest income as an adjustment to yield using the straight-line method over the life of the instrument. Realized gains and losses are calculated using the specific identification method and recorded as interest income or expense.

Allowance for Credit Losses

For available-for-sale securities in an unrealized loss position, the Company first assesses whether it intends to sell, or if it is more likely than not that it will be required to sell, the security before recovery of its amortized cost basis. If either of the criteria regarding intent or requirement to sell is met, the security's amortized cost basis is written down to fair value through earnings. For available-for-sale securities that do not meet the aforementioned criteria, the Company evaluates whether the decline in fair value has resulted from credit losses or other factors. In

making this assessment, the Company considers the severity of the impairment, any changes in interest rates, market conditions, changes to the underlying credit ratings and forecasted recovery, among other factors. The credit-related portion of unrealized losses, and any subsequent improvements, are recorded in interest income through an allowance account. Any impairment that has not been recorded through an allowance for credit losses is included in other comprehensive income on the statements of operations and comprehensive loss.

The Company excludes the applicable accrued interest from both the fair value and amortized costs basis of its available-for-sale securities for purposes of identifying and measuring an impairment. Accrued interest receivable on available-for-sale securities is recorded within prepaid expenses and other current assets on the balance sheets. The Company's accounting policy is to not measure an allowance for credit loss for accrued interest receivable and to write-off any uncollectible accrued interest receivable as a reversal of interest income in a timely manner, which the Company considers to be in the period in which it determines the accrued interest will not be collected.

Fair Value Measurements

The accounting guidance defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or non-recurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1—Observable inputs such as quoted prices in active markets.

Level 2—Inputs, other than the quoted prices in active markets that are observable either directly or indirectly.

Level 3—Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3 (see Note 3). A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value of the instrument.

Property and Equipment, Net

Property and equipment are recorded at cost and depreciated over their estimated useful lives using the straight-line method. Upon retirement or disposal, the cost and related accumulated depreciation are removed from the balance sheet and the resulting gain or loss is recognized within operating expenses based on the difference between the proceeds received and the net book value of the disposed asset. Routine expenditures for maintenance and repairs are expensed as incurred.

Estimated useful lives for property and equipment are as follows:

	Estimated Useful Life
Computer equipment	5 years
Furniture and fixtures	5 years
Lab equipment	5 years

Impairment of Long-Lived Assets

The Company reviews the recoverability of its long-lived assets when events or changes in circumstances occur that indicate that the carrying value of the asset group may not be recoverable. Recoverability of the long-lived asset

group 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 group. If these cash flows are less than the carrying value of such asset group, the Company then determines the fair value of the underlying asset group. Any impairment loss to be recognized is measured by the amount by which the carrying amount of the asset group exceeds the estimated fair value of the asset group. There were no impairment losses recognized during the years ended December 31, 2022 or 2023.

Leases

The Company determines if an arrangement is or contains a lease at inception by assessing whether it conveys the right to control the use of an identified asset in exchange for consideration. If a lease is identified, classification is determined at lease commencement. To date, all of the Company's leases have been determined to be operating leases. Operating lease liabilities are recognized at the present value of the future lease payments at the lease commencement date. The Company's leases do not provide an implicit interest rate and therefore the Company estimates its incremental borrowing rate to discount lease payments. The incremental borrowing rate reflects the estimated interest rate that the Company would have to pay to borrow on a collateralized basis, an amount equal to the lease payments in a similar economic environment over a similar term. Operating lease right-of-use (ROU) assets are determined based on the corresponding lease liability adjusted for any lease payments made at or before commencement, initial direct costs, and lease incentives. The operating lease ROU asset also includes impairment charges if the Company determines the ROU asset is impaired. The Company considers a lease term to be the noncancelable period that it has the right to use the underlying asset, including any periods where it is reasonably assured the Company will exercise the option to extend the contract. Operating lease expenses are recognized, and the ROU assets are amortized on a straight-line basis over the lease term. The Company has elected not to separate lease and non-lease components for its leased assets and accounts for all lease and non-lease components of its agreements as a single lease component. The Company has elected not to recognize leases with terms of one year or less on the balance sheets.

Deferred Offering Costs

The Company capitalizes costs that are directly associated with equity financings until such financings are consummated, at which time such costs are recorded against the gross proceeds of the offering. Should an in-process equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the statements of operations and comprehensive loss. The Company had deferred offering costs capitalized as of December 31, 2023 of $2.7 million related to the Merger. The Company had no such capitalized costs as of December 31, 2022. In December 2023, the Company abandoned its plan for an initial public offering and expensed related costs of $2.1 million to selling, general and administrative expense.

Research and Development Expenses and Related Prepaid Assets and Accrued Liabilities

Research and development costs are expensed as incurred. Research and development expenses primarily consist of internal research and development expense, including personnel-related expenses (such as salaries, benefits and noncash stock-based compensation) and external research and development expenses incurred under arrangements with vendors conducting research and development services on its behalf, such as contract research organizations (CROs) and contract manufacturing organizations (CMOs).

Payments made prior to the receipt of goods or services to be used in research and development are capitalized, evaluated for current or long-term classification, and included in prepaid expenses and other current assets or other assets in the balance sheets based on when the goods are received or the services are expected to be received or consumed, and recognized in research and development expenses when they are realized.

The Company is required to estimate expenses resulting from its obligations under contracts with vendors, service providers and clinical site agreements in connection with conducting clinical trials. The financial terms of these contracts are subject to negotiations which vary from contract to contract and may result in cash flows that do not match the periods over which materials or services are provided. The Company estimates and records accrued expenses for the related research and development activities based on the level of services performed but not yet invoiced pursuant to agreements established with its service providers, according to the progress of clinical trials or

related activities, and discussions with applicable personnel and service providers as to the progress or state of consummation of goods and services.

During the course of a clinical trial, the rate of expense recognition is adjusted if actual results differ from the Company's estimates. The Company estimates accrued expenses as of each balance sheet date in its financial statements based on the facts and circumstances known at that time. The clinical trial accrual is dependent in part upon the timely and accurate reporting of CROs, CMOs and other third-party vendors. Although the Company does not expect its estimates to be materially different from amounts actually incurred, its estimates may vary from the actual results. To date, the Company has not experienced material differences between its accrued expenses and actual expenses.

Preferred Stock Warrants Liability

The Company has issued freestanding warrants to purchase shares of its Series A convertible preferred stock (Series A Convertible Preferred). Upon certain change in control events that are outside of the Company's control, including liquidation, sale or transfer of control of the Company, holders of Series A Convertible Preferred can cause redemption. The warrants are revalued at each subsequent balance sheet date utilizing an option pricing method that back solves the fair value of the warrants based on recent financing transactions and also considers the enterprise value of the Company when considering potential exit events. Changes in fair value are recognized as increases or reductions to other income (expense), net in the accompanying statements of operations and comprehensive loss. The fair value of these warrants is classified as a non-current liability in the accompanying balance sheet since the underlying Series A Convertible Preferred stock is potentially redeemable.

Convertible Preferred and Common Stock

The Company's convertible preferred stock and Class B convertible common stock are classified outside of stockholders' deficit because the shares contain deemed liquidation rights that are a contingent redemption feature not solely within the control of the Company.

The carrying values of the convertible preferred stock and Class B convertible common stock are adjusted to their liquidation preferences if and when it becomes probable that such a liquidation event will occur. The Company did not accrete the value of the convertible preferred stock to its redemption value since a liquidation event was not considered probable as of December 31, 2022 and 2023. Subsequent adjustments to the carrying values of the convertible preferred stock will be made only when it becomes probable that such liquidation events will occur, causing the shares to become redeemable.

Share-Based Compensation

The Company maintains an equity incentive plan as a long-term incentive for employees, directors, and non-employee service providers. All share-based payments to employees and directors, including grants of incentive stock options, nonqualified stock options, restricted stock awards, unrestricted stock awards, or restricted stock units, are recognized as expense based on their grant date fair values. The Company recognizes expense on a straight-line basis over the requisite service period, which is generally the vesting period of the respective award. Stock-based compensation is classified in the statements of operations and comprehensive loss based on the function to which the related services are provided. The Company has elected to account for forfeitures as they occur.

Stock Options

The Company estimated the fair value of options granted using the Black-Scholes-Merton (Black-Scholes) option pricing model for stock option grants to both employees and non-employees.

The Black-Scholes option pricing model requires inputs based on certain subjective assumptions. A discussion of management's methodology for developing the assumptions used in the valuation model follows:

Fair Value of Common Stock—Given the lack of an active public market for the Company's common stock, the fair value of the Company's common stock was determined by the board of directors with input from management and consideration of third-party valuation reports. In the absence of a public trading market, and as a clinical-stage

company with no significant revenues, the Company believes that it was appropriate to consider a range of factors to determine the fair market value of the common stock at each grant date. In determining the fair value of its common stock, the Company used methodologies, approaches, and assumptions consistent with the American Institute of Certified Public Accountants' (AICPA) Audit and Accounting Practice Aid Series: *Valuation of Privately Held Company Equity Securities Issued as Compensation*. In addition, the Company considered various objective and subjective factors, along with input from the independent third-party valuation firm. The factors included (1) the achievement of clinical and operational milestones by the Company; (2) the significant risks associated with the Company's stage of development; (3) capital market conditions for life science companies, particularly similarly situated, privately held, early-stage life science companies; (4) the Company's available cash, financial condition, and results of operations; (5) the most recent sales of the Company's convertible preferred stock; and (6) the preferential rights of the outstanding convertible preferred stock and Class B convertible common stock.

Expected Dividend Yield—The expected dividend yield is based on the Company's historical and expected dividend payouts. The Company has historically paid no dividends and does not anticipate dividends to be paid in the future.

Expected Equity Volatility—Due to the lack of a public market for the Company's common stock and the lack of company-specific historical and implied volatility data, the Company has based its computation of expected volatility on the historical volatility of a representative group of public companies with similar characteristics to the Company (e.g., public entities of similar size, complexity, stage of development, and industry focus). The historical volatility is calculated based on a period of time commensurate with expected term assumption.

Risk-Free Interest Rate—The risk-free interest rate is based on a treasury instrument whose term is consistent with the expected term of the stock options.

Expected Term—The Company uses the simplified method as prescribed by the Securities and Exchange Commission Staff Accounting Bulletin No. 107, *Share-Based Payment*, to calculate the expected term for options granted to employees as it does not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term.

Income Taxes

The Company uses the asset and liability method of accounting for income taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax base. Deferred tax assets and liabilities are measured using effective tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. Deferred tax expense or benefit is the result of changes in the deferred tax assets and liabilities. Valuation allowances are established when necessary to reduce deferred tax assets where, based upon the available evidence, the Company concludes that it is more-likely-than-not that some or all of the deferred tax assets will not be realized. In evaluating its ability to recover deferred tax assets, the Company considers all available positive and negative evidence, including its operating results, ongoing tax planning, and forecasts of future taxable income on a jurisdiction-by-jurisdiction basis. Because of the uncertainty of the realization of deferred tax assets, the Company has recorded a valuation allowance against its net deferred tax assets.

Liabilities are provided for tax benefits for which realization is uncertain. Such benefits are only recognized when the underlying tax position is considered more-likely-than-not to be sustained on examination by a taxing authority, assuming they possess full knowledge of the position and facts. Interest and penalties related to uncertain tax positions are recognized in the provision of income taxes. As of December 31, 2022 and 2023, the Company had no interest or penalties related to uncertain income tax benefits.

The Company's policy is to include interest and penalties related to unrecognized income tax benefits as a component of income tax expense. The Company has no accruals for interest or penalties in the balance sheets as of December 31, 2022 and 2023 and has not recognized interest or penalties in the statements of operations for the years ended December 31, 2022 or 2023.

Revenue Recognition

The Company evaluates its revenue agreements in accordance with FASB ASC 606, *Revenue from Contracts with Customers* (ASC 606). ASC 606 requires a five-stage approach, including (i) identification of the contract; (ii) identification of performance obligations; (iii) determination of the transaction price; (iv) allocation of the transaction price; and (v) recognition of revenue.

Net Loss Per Share

Basic net loss per share is calculated by dividing net loss attributed to Class A common stockholders by the weighted-average number of shares of Class A common stock outstanding during the period, without consideration for common stock equivalents. The convertible preferred stock and Class B convertible common stock are not participating securities, because they do not participate in losses. Stock options, preferred stock warrants, Class A warrants, Class B convertible common stock, and convertible preferred stock are considered potentially dilutive to Class A common stock. The Company computes diluted net loss per share attributable to Class A common stockholders after giving consideration to all potentially dilutive Class A common stock outstanding during the period, determined using the treasury-stock and if-converted methods, except where the effect of including such securities would be antidilutive. The Company makes adjustments to diluted net loss attributed to Class A common stockholders to reflect the reversal of gains on the change in the value of preferred stock warrants liability, assuming conversion of warrants to acquire convertible preferred stock at the beginning of the period or at time of issuance, if later, to the extent that those preferred stock warrants are dilutive. Diluted net loss per share is the same as basic net loss per share, since the effects of potentially dilutive securities are antidilutive given the net loss for each period presented.

Other Comprehensive Income

Other comprehensive income represents the change in the Company's stockholders' deficit from all sources other than investments by or distributions to stockholders. The Company's other comprehensive income is the result of unrealized gains and losses on marketable securities.

Segment Reporting

Operating segments are defined as components of an entity about which separate discrete information is available for evaluation by the chief operating decision maker (CODM), or decision-making group, in deciding how to allocate resources and in assessing performance. The Company's Chief Executive Officer acts as the CODM. The CODM views the Company's operations and manages its business as one operating segment operating exclusively in the United States.

Recent Accounting Pronouncements

In December 2023, the Financial Accounting Standards Board ("FASB") issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*. The update requires a public business entity to disclose, on an annual basis, a tabular rate reconciliation using both percentages and currency amounts, broken out into specified categories with certain reconciling items further broken out by nature and jurisdiction to the extent those items exceed a specified threshold. In addition, all entities are required to disclose income taxes paid, net of refunds received disaggregated by federal, state/local, and foreign and by jurisdiction if the amount is at least 5% of total income tax payments, net of refunds received. Adoption of the ASU allows for either the prospective or retrospective application of the amendment and is effective for the Company for annual periods beginning after December 15, 2025, with early adoption permitted. The Company has not yet completed its assessment of the impact of ASU 2023-09 on the Company's financial statements.

3. Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, including cash equivalents classified within the Level 1 designation, prepaid and other current assets, accounts payable, and accrued liabilities approximate fair

value due to their short maturities. Cash equivalents, marketable securities, and the preferred stock warrants liability are recorded at fair value on a recurring basis.

None of the Company's non-financial assets or liabilities are recorded at fair value on a non-recurring basis.

Liabilities measured at fair value on a recurring basis are as follows (in thousands):

	Fair Value Measurements at Reporting Date			
	Total	Level 1	Level 2	Level 3
At December 31, 2022:				
Liabilities				
Preferred stock warrants liability	$ 994	$ —	$ —	$ 994
Total liabilities measured at fair value	$ 994	$ —	$ —	$ 994

	Fair Value Measurements at Reporting Date			
	Total	Level 1	Level 2	Level 3
At December 31, 2023:				
Cash equivalents				
Money market funds	$ 7,962	$ 7,962	$ —	$ —
Total cash equivalents measured at fair value	$ 7,962	$ 7,962	$ —	$ —
Marketable securities				
Commercial paper	$ 18,751	$ —	$ 18,751	$ —
U.S. government agency securities	9,925	—	9,925	—
U.S. treasury securities	1,978	1,978	—	—
Total marketable securities measured at fair value	$ 30,654	$ 1,978	$ 28,676	$ —
Liabilities				
Preferred stock warrants liability	$ 871	$ —	$ —	$ 871
Total liabilities measured at fair value	$ 871	$ —	$ —	$ 871

Marketable securities consisted of the following (in thousands):

	December 31, 2023			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Commercial paper	$ 18,742	$ 9	$ —	$ 18,751
US government agencies	9,927	1	(3)	9,925
US treasury securities	1,977	1	—	1,978
Totals	$ 30,646	$ 11	$ (3)	$ 30,654

As of December 31, 2023, three of the Company's marketable securities with a fair market value of $6.5 million were in a gross unrealized loss position of $3,000, all of which have been in a gross unrealized loss position for less than one year. When evaluating an investment for impairment, the Company reviews factors such as the severity of the impairment, changes in underlying credit ratings, forecasted recovery, the Company's intent to sell or the likelihood that it would be required to sell the investment before its anticipated recovery in market value and the probability that the scheduled cash payments will continue to be made. Based on the Company's review of these marketable securities, the Company believes none of the unrealized loss is the result of a credit loss as of

December 31, 2023, because it does not intend to sell these securities, and it is not more-likely-than-not that it will be required to sell these securities before the recovery of their amortized cost basis.

As of December 31, 2023, all marketable securities had contractual maturities of less than one year.

The key unobservable inputs for the preferred stock warrants liability were:

	December 31	
	2022	2023
Estimated time to liquidity	2.5 years	2.0 years
Volatility rate	70.0%	84.0%
Risk-free interest rate	4.3%	4.2%

The Company did not transfer any assets measured at fair value on a recurring basis between levels during the years ended December 31, 2022 and 2023.

The following table presents activity for the preferred stock warrants liability during the years ended December 31, 2023 (in thousands):

	Preferred Stock Warrants Liability
Balance at December 31, 2022	$ 994
Change in fair value	(123)
Balance at December 31, 2023	$ 871

4. Property and Equipment, net

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

	As of December 31,	
	2022	2023
Office equipment	$ 46	$ 64
Leasehold improvements	—	$ 12
Lab equipment	5	5
Property and equipment, gross	51	81
Less: accumulated depreciation	(12)	(27)
Property and equipment, net	$ 39	$ 54

Depreciation and amortization expense was $8,000 and $15,000 for the years ended December 31, 2022 and 2023, respectively. As of December 31, 2023, all the Company's property and equipment was located in the United States.

5. Accrued Liabilities

Accrued liabilities consist of the following (in thousands):

	As of December 31,	
	2022	2023
Accrued research and development expense	$ 3,192	$ 10,289
Accrued payroll and related benefits	875	1,998
Income taxes payable	347	—
Operating lease liability, current portion	103	137
Other accrued liabilities	227	379
Total accrued liabilities	$ 4,744	$ 12,803

6. Commitments and Contingencies

Operating Leases

The Company leased office space in Del Mar, California under a lease that expired on March 31, 2022. Commencing on April 1, 2022, the Company entered into a separate lease agreement for office space in Del Mar, California, which was subsequently amended to expand the office space leased and extend the term. As of December 31, 2023, the remaining lease term was 2.3 years, and the discount rate used to determine the right-of-use assets and corresponding operating lease liabilities was 7.0%. Cash paid for operating leases approximated rent expense for the periods presented.

Maturities of the operating lease liability as of December 31, 2023, are as follows (in thousands):

2024	$ 155
2025	161
2026	41
Total undiscounted lease payments	357
Less: Present value adjustment	(28)
Operating lease liability	$ 329

Rent expense for the years ended December 31, 2022 and 2023 was $110,000 and $145,000, respectively.

Contingencies

From time to time, the Company may be subject to various litigation and related matters arising in the ordinary course of business. The Company records a provision for a liability when it believes that it is both probable that a liability has been incurred and the amount can be reasonably estimated. Significant judgment is required to determine both probability and the estimated amount. As of December 31, 2022 and 2023, the Company was not involved in any material legal proceedings.

Indemnifications

In the normal course of business, the Company enters into agreements that contain a variety of representations and provide for general indemnification. Its exposure under these agreements is unknown because it involves claims that may be made against the Company in the future. To the extent permitted under Delaware law, the Company has agreed to indemnify its directors and officers for certain events or occurrences while the director or officer is, or was serving, at a request in such capacity. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. As of December 31, 2023, the Company did not have any material indemnification claims that were probable or reasonably possible and consequently has not recorded related liabilities.

7. Convertible Preferred Stock

As of December 31, 2023, the Company has authorized 53,761,506 shares of preferred stock with a par value of $0.001. As of December 31, 2022, there were 21,977,282 shares of Series A Convertible Preferred Stock (Series A) and 2,950,548 shares of Series A-1 Convertible Preferred Stock (Series A-1) issued and outstanding. As of December 31, 2023, there were 21,977,282 shares of Series A, 2,950,548 shares of Series A-1, and 28,019,181 shares of Series B Convertible Preferred Stock (Series B) issued and outstanding. As of December 31, 2023, the total liquidation preference of issued and outstanding Series A, Series A-1, and Series B was $47.3 million, $10.0 million, and $83.5 million, or $2.15 per share, $3.3892 per share, and $2.9801 per share, respectively.

Dividends

The holders of preferred stock are entitled to receive annual noncumulative dividends at an annual rate of 8% in preference to any declaration or payment of any dividend on the common stock, on an as-converted basis when, as and if declared by the board of directors. As of December 31, 2022 and 2023, no dividends had been declared.

Voting Rights

Each holder of outstanding shares of Series A, Series A-1, and Series B shall be entitled to cast the number of votes equal to the number of whole shares of Class A common stock into which the shares of Series A, Series A-1, and Series B held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter.

Conversion Rights

Each share of preferred stock is convertible into shares of common stock at the ratio calculated by dividing the original issuance price by the conversion price. The conversion price is equal to the original issuance price but is subject to anti-dilution adjustments for splits, dividends and similar recapitalizations. As of December 31, 2023, the conversion ratio was one-for-one.

Subject to certain exclusions, anti-dilution price protection for additional sales of securities by the Company for consideration per unit less than the applicable conversion price per unit of any series of preferred stock are to be on a broad-based weighted average basis.

Liquidation Preference

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, the holders of Series A, Series A-1, and Series B shall be entitled to be paid out of the assets of the Company available for distribution to its shareholders before any payment shall be made to the holders of the Class A and Class B convertible common stock.

The Company did not adjust the carrying values of the preferred stock to the liquidation preferences of such shares because it was uncertain whether or when an event would occur that would obligate the Company to pay the liquidation preferences to holders of shares of Class B convertible common stock and preferred stock and these circumstances were not probable as of the balance sheet dates. Subsequent adjustments to the carrying values of the liquidation preferences are to be made only when it becomes probable that such a liquidation event will occur.

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company, the holders of shares of the Company then outstanding preferred and common stock shall be entitled to be paid as follows:

- First to the holders of shares of preferred stock then outstanding, an amount per share equal to the sum of original issue price plus any dividends declared but unpaid thereon.
- Second, to the holders of shares of Class B convertible common stock then outstanding, an amount per share equal to the original issue price for the Class B convertible common stock, plus any dividends declared but unpaid thereon, plus an additional per share amount calculated at a rate per annum equal to

10% of the original $2.15 issue price for the Class B convertible common stock, compounded annually, and which shall be calculated from the Class

- B convertible common stock original issue date until the earlier to occur of (i) as applicable, the date of the deemed liquidation event or (ii) the fifth anniversary of such Class B convertible common stock original issue date. As of December 31, 2023, the liquidation preference was $9.5 million, or $3.46 per share.
- Then, among the holders of the shares of preferred stock, Class B convertible common stock, and Class A common stock, principally pro rata based on the number of shares held by each such holder as if they had been converted to Class A common stock immediately prior to such liquidation, dissolution or winding up of the Company.

Registration Rights

Under the Company's investors' rights agreement, the holders of a majority of Company's stock outstanding have the right to demand that the Company file a registration statement or request that their shares be covered by a registration statement that the Company is otherwise filing. The obligations of the Company regarding such registration rights include, but are not limited to, commercially reasonable efforts to cause such registration statement to become effective, keep such registration statement effective for up to 120 days, prepare and file amendments and supplements to such registration statement and the prospectus used in connection with such registration statement, and furnish to the selling holders copies of the prospectus and any other documents as they may reasonably request. The terms of the registration rights provide for the payment of certain expenses related to the registration of the shares, including a capped reimbursement of legal fees of a single special counsel for the holders of the shares, but do not impose any obligations for the Company to pay additional consideration to the holders in case a registration statement is subsequently withdrawn at the request of the holders.

8. Common Stock

As of December 31, 2023, the Company has authorized two series of common stock, designated Class A common stock and Class B convertible common stock. As of December 31, 2022 and 2023, there were 9,915,013 of Class A common stock issued, and there were 9,629,171 and 9,739,818 of Class A common stock outstanding, respectively. As of December 31, 2022 and 2023, there were 2,744,184 shares of Class B convertible common stock issued and outstanding.

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders. Class B convertible common stockholders are entitled to receive noncumulative dividends at an annual rate of 8%, as may be declared by the board of directors, if any. Class A common stockholders have no dividend rights. Such dividends are not cumulative, and no dividends have been declared or paid by the Company through December 31, 2023.

Class A common stock reserved for future issuance consist of the following:

	December 31,	
	2022	2023
Convertible preferred stock	24,927,830	52,947,011
Class B convertible common stock	2,744,184	2,744,184
Class A common stock options granted and outstanding	5,271,961	9,317,290
Class A shares available for issuance under incentive plans	115,306	1,510,254
Class A common stock warrants	470,000	470,000
Preferred stock warrants	814,495	814,495

9. Warrants

The Company has issued warrants to acquire Class A common stock and Series A convertible preferred stock.

The warrant to purchase 470,000 shares of Class A common stock has an exercise price of $0.21 per share and was issued in December 2020 with an expiration date in February 2024.

The Series A preferred stock warrants have an exercise price of $2.15 per share and were issued in October 2020 with an expiration date in October 2027. The Series A preferred stock warrants shall no longer be exercisable and become null and void on the date of which the Company consummates the sale of its common stock or other securities in the Company's first underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, or in the event of a deemed liquidation event, provided however that if the holder of any such Series A preferred stock warrant has not exercised the warrant prior to the closing of any such transaction, such Series A preferred stock warrant shall automatically be deemed to be exercised in full pursuant to the net exercise features of such Series A preferred stock warrants immediately prior to the closing of the applicable transaction, without any further action required on the part of the holder thereof.

No warrants were exercised for any of the periods presented.

10. Share-Based Compensation

The Company's 2020 Equity Incentive Plan (the 2020 Plan) provides for the grant of incentive stock options, non-statutory stock options, and other equity awards to the Company's employees, officers, directors, and consultants. As of December 31, 2023, the aggregate number of shares of Class A common stock authorized under the 2020 Plan, as amended, was 11,385,409 shares.

Stock Options

Stock options granted under the 2020 Equity Incentive Plan generally vest over three or four years and expire after 10 years.

The per share exercise price for stock options granted is set at the fair value per share of common stock as determined by the board of directors as of the date of grant. The board of directors determined the value the Company's Class A common stock considering many factors, including third-party valuation of the Company's Class A common shares, as well as additional factors, which may have changed since the date of the most recent contemporaneous valuation through the date of grant.

A summary of stock option activity for awards under the 2020 Plan is presented below:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Lives (years)	Aggregate Intrinsic Value (in thousands)
Outstanding as of December 31, 2022	5,271,961	$ 0.38	6.8	$ 12,585
Granted	4,045,329	$ 1.26	—	
Outstanding as of December 31, 2023	9,317,290	$ 0.76	7.4	$ 18,691
Exercisable as of December 31, 2023	7,261,957	$ 0.63	6.9	$ 15,536
Vested and expected to vest	9,492,482	$ 0.76	7.4	$ 19,054

The weighted average grant date fair value per share of stock options granted during the years ended December 31, 2022 and 2023 was $0.73 and $1.07, respectively.

The Company recorded share-based compensation expense of $0.7 million and $1.3 million for the years ended December 31, 2022 and 2023, respectively. As of December 31, 2023, there was $4.3 million of unrecognized compensation cost related to unvested share-based compensation arrangements granted under the 2020 Plan, which is expected to be recognized over a weighted average period of 2.7 years.

Share-based compensation expense was as follows (in thousands):

	Year Ended December 31,	
	2022	2023
Selling, general and administrative	$ 568	$ 900
Research and development	153	443
Total	$ 721	$ 1,343

The assumptions used in the Black-Scholes option pricing model for stock options granted were as follows:

	December 31	
	2022	2023
Expected term	6.0 years	6.0 years
Expected volatility	92.8% - 96.6%	92.0% - 92.7%
Risk free interest rate	1.9% - 4.2%	3.9% - 4.6%
Expected dividend yield	0.0%	0.0%

Liability for Early Exercise of Stock Options

Certain individuals were granted the ability to early exercise their stock options. The shares of Class A common stock issued from the early exercise of unvested stock options are restricted and continue to vest in accordance with the original vesting schedule. The Company has the option to repurchase any unvested shares at the original purchase price upon any voluntary or involuntary termination. The shares purchased by the employees and non-employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be outstanding until those shares vest. The cash received in exchange for exercised and unvested shares related to stock options granted is recorded as a liability for the early exercise of stock options on the accompanying balance sheets and will be transferred into Class A common stock and additional paid-in capital as the shares vest. As of December 31, 2022 and 2023, there were 285,839 and 175,192 unvested shares issued under early exercise provisions were subject to repurchase by the Company, respectively. At both December 31, 2022 and 2023, the Company recorded $0.1 million associated with early exercised stock options in other long-term liabilities.

11. Net Loss Per Share Attributable to Class A Common Stockholders

The Company's potential dilutive securities, which include convertible preferred stock, options to purchase common stock, Class A common warrants, preferred stock warrants, and Class B convertible common stock, have been excluded from the computation of diluted net loss per share as the effect would be anti-dilutive. Therefore, the weighted average number of common shares outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same. The Company excluded the following potential common shares, presented based on amounts outstanding at period end, from the computation of diluted net loss per share attributable to common stockholders for the period indicated because including them would have had an anti-dilutive effect:

	December 31,	
	2022	2023
Convertible preferred stock	24,927,830	52,947,011
Class A common stock options granted and outstanding	5,271,961	9,317,290
Class A common stock warrants	470,000	470,000
Preferred stock warrants	814,495	814,495
Class B convertible common stock	2,744,184	2,744,184
Total	34,228,470	66,292,980

The holders of convertible preferred stock and Class B convertible common stock do not contractually share in losses and therefore no additional net loss per share has been disclosed under the two-class method.

12. Income Taxes

The components of the income tax expense (benefit) were as follows (in thousands):

	Year Ended December 31,	
	2022	2023
Current		
Federal	$ 322	$ (164)
State	25	(15)
Total current	347	(179)
Deferred		
Federal	—	—
State	—	—
Total deferred	—	—
Total income tax expense (benefit)	$ 347	$ (179)

A reconciliation of the Company's income tax expense (benefit) to the amount computed by applying the federal statutory income tax rate is summarized as follows (in thousands):

	Year Ended December 31,	
	2022	2023
Expected tax benefit computed at federal statutory rate	$ (2,192)	$ (14,731)
State income taxes, net of federal tax benefit	(2)	(1,153)
Permanent differences	70	120
Research and development credit carryforwards	(1,788)	(5,472)
Reserve for uncertain tax positions	140	1,517
Other	203	(463)
Change in valuation allowance	3,916	20,003
Income tax expense (benefit)	$ 347	$ (179)

Significant components of the Company's net deferred tax assets (liabilities) are summarized as follows (in thousands):

	Year Ended December 31,	
	2022	2023
Deferred tax assets		
Net operating loss carryforwards	$ 152	$ 3,975
Research and development credit carryforwards	982	6,269
Capitalized research and development	5,044	15,282
Intangible assets	249	531
Share-based compensation	137	290
Other	220	463
Total deferred tax assets	6,784	26,810
Valuation allowance	(6,727)	(26,736)
Net deferred tax assets	57	74
Deferred tax liabilities		
Other	(57)	(74)
Total deferred tax liabilities	57	74
Net deferred tax assets	$ —	$ —

The Tax Cuts and Jobs Act (TCJA) requires taxpayers to capitalize and amortize research and development (R&D) expenditures under section 174 for tax years beginning after December 31, 2021. This rule became effective for the Company during the year ended December 31, 2022, resulting in a gross deferred tax asset for capitalized R&D costs of approximately $66.0 million as of December 31, 2023. The Company will continue to amortize these costs for tax purposes over 5 years for R&D performed in the U.S. and over 15 years for R&D performed outside the U.S.

Deferred income tax assets and liabilities are recorded for differences between the financial statement and tax basis of the assets and liabilities that will result in taxable or deductible amounts in the future based on enacted laws and rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized.

The Company evaluated the available evidence supporting the realization of its gross deferred tax assets, including the amount and timing of future taxable income, and has determined it is more likely than not that the assets will not be realized. Due to uncertainties surrounding the realizability of the deferred tax assets, the Company maintains a full valuation allowance against its deferred tax assets at December 31, 2022 and 2023.

The Company had a valuation allowance of $26.7 million at December 31, 2023 to offset the net deferred tax assets as realization of such assets is uncertain. The valuation allowance increased by $20.0 million during the year ended December 31, 2023.

At December 31, 2023, the Company had federal and state net operating loss (NOL) carryforwards of $18.1 million and $17.9 million, respectively. Federal NOL carryforwards of $18.1 million generated after 2017 may be carried forward indefinitely but can only be utilized to offset 80% of future taxable income. State NOL carryforwards totaling $17.2 million begin to expire in 2040, unless previously utilized, and $0.6 million that carryforward indefinitely. In addition, the Company also has federal and state R&D credit carryforwards totaling $6.5 million and $0.5 million, respectively. The federal R&D credit carryforwards will begin to expire in 2040 unless previously utilized. The state R&D credit carryforwards will begin to expire in 2042 unless previously utilized.

Utilization of NOL carryforwards and other tax attributes, including those obtained through the Merger, may be subject to substantial annual limitation under Section 382 of the Internal Revenue Code of 1986, as amended, due to

ownership change limitations that have occurred previously or that could occur in the future. An ownership change occurs, generally, if the percentage of stock of the loss corporation owned by one or more 5% shareholders has increased by more than 50 percentage points relative to the lowest percentage of stock of the loss corporation owned by the same 5% shareholders at any time during the testing period (generally, the three-year period preceding a testing date). These ownership changes may limit the amount of NOL carryforwards and tax credits that can be utilized annually to offset future taxable income. State NOL carryforwards and other state tax attributes may be similarly limited. The Company completed a Section 382 analysis through December 31, 2022 and it was determined the Company underwent an ownership change as defined under Section 382 on April 21, 2021. It was determined that based on the calculations, no attribute carryovers will expire without utilization as a result of Section 382 limitations from the April 21, 2021 ownership change. The Company's use of NOL and credit carryforwards could be limited further by the provisions of Section 382 depending on the timing and amount of additional equity securities that the Company has issued or will issue subsequent to December 31, 2022, including those obtained through the Merger to the extent the Company or Graphite experiences an ownership change through or subsequent to the Merger.

The Company recognizes a tax benefit from an uncertain tax position when it is more likely than not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits. Income tax positions must meet a more likely than not recognition at the effective date to be recognized. As of December 31, 2022 and 2023, the Company had no unrecognized tax benefits that, if recognized and realized, would effect the effective tax rate due to the valuation allowance against deferred tax assets.

The following table summarizes the changes to the Company's gross unrecognized tax benefits (in thousands):

	Year Ended December 31,	
	2022	2023
Balance at beginning of year	$ —	$ 131
Increases related to prior year tax positions	28	6
Increases related to current year tax positions	103	1,816
Balance at end of year	131	1,953

The Company's policy is to recognize interest and penalties related to income tax matters as income tax expense. The Company had no accrual for interest or penalties on the Company's balance sheets at December 31, 2022 or 2023, and has not recognized interest and/or penalties in the statement of operations and comprehensive loss for the years ended December 31, 2022 and 2023. As of December 31, 2022 and 2023, the Company had unrecognized tax benefits of $0.1 million and $1.7 million, respectively, which if recognized currently, should not impact the effective tax rate due to the Company maintaining a full valuation allowance. The Company does not expect that there will be a significant change in the unrecognized tax benefit over the next twelve months.

The Company is subject to taxation in the U.S. federal and various state jurisdictions. All of the Company's tax years are subject to examination by federal and state tax authorities due to the carryforward of unutilized net operating losses and R&D credits. Further the Company is not currently under examination by any federal, state or local tax authority.

13. License Agreements

In April 2022, the Company entered into a license and collaboration agreement providing an exclusive license (License) to certain of the Company's intellectual property (IP) for use in the treatment of presbyopia in humans in mainland China, Hong Kong Special Administrative Region, Macau Special Administrative Region, and Taiwan (collectively, "Greater China"). The Company also agreed to negotiate a separate agreement for the purchase of clinical and commercial supply of IP for clinical and commercial requirements at cost plus a negotiated percentage and granted a right of first negotiation to obtain a regional license on other products the Company might develop outside the field of presbyopia for commercialization in Greater China.

The Company received nonrefundable, non-creditable upfront payments totaling $15.0 million as initial consideration under the License, which represents the transaction price at inception. In addition, the Company is also eligible to receive up to $95.0 million of regulatory and sales milestones, as well as tiered low double-digit royalties on net sales of IP in Greater China. Additional consideration to be paid to the Company upon reaching regulatory and sales milestones is excluded from the transaction price. Future milestone payments are fully contingent as the risk of significant revenue reversal will only be resolved depending on future regulatory approval and sales level outcomes. The sales-based royalty fee qualifies for the royalty constraint exception and does not require an estimate of the future transaction price. The sales-based royalty fee is considered variable consideration and will be recognized as revenue as such sales occur, if any.

The Company assessed the promises made under the License and concluded the License comprises a single performance obligation providing the right to use functional intellectual property. The $15.0 million transaction price allocated to that single performance obligation was recognized on completion of the transfer of the License in the year ended December 31, 2022. no additional amounts under the License were paid during the years ended December 31, 2022 and 2023 or were due to the Company at December 31, 2022 and 2023.

Contemporaneously with entering into the License agreement, a significant investor in the licensee purchased 2,950,548 shares of the Company's Series A-1 Preferred Stock for $10.0 million.

14. Employee Benefit Plan

The Company sponsors a 401(k) retirement plan to provide retirement benefits for all eligible employees. Participating employees may voluntarily contribute up to limits provided by Internal Revenue Service regulations. For the years ended December 31, 2022 and 2023, the Company made contributions to the plan of $0.1 million and $0.2 million, respectively.

15. Related Party Transactions

In October 2022, the Company issued 9,899,340 shares of its Series A preferred stock for total cash proceeds of $21.3 million to significant shareholders that have designated members on the Company's board of directors and are considered to be related parties.

In March 2023, the Company issued 22,146,905 shares of its Series B preferred stock for total cash proceeds of $66.0 million to significant shareholders that have designated members on the Company's board of directors and are considered to be related parties.

A member of the Company's Board of Directors currently serves as a member of the board of directors of one of the Company's vendors, and has served in that capacity since 2023. The Company entered into a Master Services Agreement with this vendor in September 2023 to provide manufacturing services. Accordingly, the Company considers the vendor to be a related party. For the year ended December 31, 2023, fees incurred for services performed by the vendor were $0.3 million, and were charged to research and development expenses. Amounts due to the vendor within accounts payable as of December 31, 2023 totaled $0.3 million.

16. Subsequent Events

The Company has evaluated subsequent events through March 21, 2024, the date on which the accompanying financial statements are available to be issued. During this period, the Company has concluded that no material subsequent events have occurred other than those disclosed below.

Completion of the Merger Transaction

As more fully described in Note 1, on March 21, 2024, the Company completed the Merger by and among the Company, Graphite, and Merger Sub, pursuant to which, and subject to the satisfaction or waiver of the conditions set forth in the Merger Agreement, Merger Sub merged with and into the Company, with the Company continuing as a wholly owned subsidiary of Graphite and the surviving corporation of the merger.

On a pro forma basis and based upon the number of shares of Graphite common stock issued in the Merger, the Company's pre-Merger stockholders own approximately 65% of the combined company, pre-Merger Graphite stockholders own approximately 35% of the combined company on a fully-diluted basis (prior to giving effect to the Concurrent PIPE Investment described below and excluding any shares reserved for future grants under the 2024 Plan and the 2024 ESPP, each as defined in the Merger Agreement).

Private Placement and Subscription Agreement

Immediately prior to consummation of the merger, Graphite completed the Graphite private placement financing pursuant to the Subscription agreement by issuing 3,559,565 shares of Graphite's common stock at $15.03 per share for an aggregate purchase price of $53.5 million ("the concurrent PIPE investment"). The concurrent PIPE investment is exempt from registration pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended (the Securities Act), and/or Regulation D promulgated thereunder, as a transaction by an issuer not involving a public offering. The PIPE investors have acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends have been affixed to the securities issued in this transaction.

Warrants

In February 2024, the holder exercised warrants to purchase 470,000 shares of our Class A common stock, resulting in $0.1 million of proceeds.