Merger Announcement

November 2023

Legends

Forward-Looking Statements
This communication contains "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, including but not limited to, express or implied statements regarding the structure, timing and completion of the proposed merger by and between Graphite Bio, Inc. ("Graphite") and LENZ Therapeutics, Inc. ("LENZ") (the "Merger"); the combined company's listing on Nasdaq after the closing of the proposed Merger (the "Closing"); expectations regarding the ownership structure of the combined company; the anticipated timing of the Closing; the expected executive officers and directors of the combined company; expectations regarding the structure, timing and completion of a concurrent private financing, including investment amounts from investors, timing of closing, expected proceeds and impact on ownership structure; each company's and the combined company's expected cash position at the Closing and cash runway of the combined company following the Merger and private financing; the future operations of the combined company, including commercialization activities, timing of launch, buildout of commercial infrastructure; the nature, strategy and focus of the combined company; the development and commercial potential and potential benefits of any product candidates of the combined company, including expectations around market exclusivity and IP protection; the location of the combined company's corporate headquarters; anticipated clinical drug development activities and related timelines, including the expected timing for announcement of data and other clinical results and potential submission of a New Drug Application for one or more product candidates; and other statements that are not historical fact. All statements other than statements of historical fact contained in this communication are forward-looking statements. These forward-looking statements are made as of the date they were first issued, and were based on the then-current expectations, estimates, forecasts, and projections, as well as the beliefs and assumptions of management. There can be no assurance that future developments affecting Graphite, LENZ, the Merger or the concurrent private financing will be those that have been anticipated.

Forward-looking statements are subject to a number of risks and uncertainties, many of which involve factors or circumstances that are beyond Graphite's control. Graphite's actual results could differ materially from those stated or implied in forward-looking statements due to a number of factors, including but not limited to (i) the risk that the conditions to the Closing are not satisfied, including the failure to timely obtain stockholder approval for the transaction, if at all; (ii) uncertainties as to the timing of the consummation of the proposed Merger and the ability of each of Graphite and LENZ to consummate the proposed Merger; (iii) risks related to Graphite's ability to manage its operating expenses and its expenses associated with the proposed Merger pending the Closing; (iv) risks related to the failure or delay in obtaining required approvals from any governmental or quasi-governmental entity necessary to consummate the proposed Merger; (v) the risk that as a result of adjustments to the exchange ratio, Graphite stockholders and LENZ stockholders could own more or less of the combined company than is currently anticipated; (vi) risks related to the market price of Graphite's common stock relative to the value suggested by the exchange ratio; (vii) unexpected costs, charges or expenses resulting from the transaction; (viii) potential adverse reactions or changes to business relationships resulting from the announcement or completion of the proposed Merger; (ix) the uncertainties associated with LENZ's product candidates, as well as risks associated with the clinical development and regulatory approval of product candidates, including potential delays in the completion of clinical trials; (x) risks related to the inability of the combined company to obtain sufficient additional capital to continue to advance these product candidates; (xi) uncertainties in obtaining successful clinical results for product candidates and unexpected costs that may result therefrom; (xii) risks related to the failure to realize any value from product candidates being developed and anticipated to be developed in light of inherent risks and difficulties involved in successfully bringing product candidates to market; (xiii) risks associated with the possible failure to realize certain anticipated benefits of the proposed Merger, including with respect to future financial and operating results; (xiv) the risk that the private financing is not consummated upon the Closing; and (xv) the risk that Graphite stockholders receive more or less of the cash dividend than is currently anticipated, among others. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties. These and other risks and uncertainties are more fully described in periodic filings with the U.S. Securities and Exchange Commission (the "SEC"), including the factors described in the section titled "Risk Factors" in Graphite's Annual Report on Form 10-K for the year ended December 31, 2022, as amended, filed with the SEC, subsequent Quarterly Reports on Form 10-Q filed with the SEC, and in other filings that Graphite makes and will make with the SEC in connection with the proposed Merger, including the Proxy Statement described below under "Additional Information and Where to Find It." You should not place undue reliance on these forward-looking statements, which are made only as of the date hereof or as of the dates indicated in the forward-looking statements. Graphite expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in its expectations with regard thereto or any change in events, conditions or circumstances on which any such statements are based. This communication does not purport to summarize all of the conditions, risks and other attributes of an investment in Graphite or LENZ.

No Offer or Solicitation
This communication does not constitute an offer to sell or the solicitation of an offer to buy any securities nor a solicitation of any vote or approval with respect to the proposed transaction or otherwise. No offering of securities shall be made except by means of a prospectus meeting the requirements of Section 10 of the U S. Securities Act of 1933, as amended, and otherwise in accordance with applicable law.

Additional Information and Where to Find It
This communication relates to the proposed Merger involving Graphite and LENZ and may be deemed to be solicitation material in respect of the proposed Merger. In connection with the proposed Merger, Graphite will file relevant materials with the SEC, including a registration statement on Form S-4 (the "Form S-4") that will contain a proxy statement (the "Proxy Statement") and prospectus. This communication is not a substitute for the Form S-4, the Proxy Statement or for any other document that Graphite may file with the SEC and or send to Graphite's shareholders in connection with the proposed Merger. BEFORE MAKING ANY VOTING DECISION, INVESTORS AND SECURITY HOLDERS OF GRAPHITE ARE URGED TO READ THE FORM S-4, THE PROXY STATEMENT AND OTHER DOCUMENTS FILED WITH THE SEC CAREFULLY AND IN THEIR ENTIRETY WHEN THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT GRAPHITE, THE PROPOSED MERGER AND RELATED MATTERS.

Investors and security holders will be able to obtain free copies of the Form S-4, the Proxy Statement and other documents filed by Graphite with the SEC through the website maintained by the SEC at http://www.sec.gov. Copies of the documents filed by Graphite with the SEC will also be available free of charge on Graphite's website at www.graphitebio.com, or by contacting Graphite's Investor Relations at investors@graphitebio.com.

Participants in the Solicitation
Graphite, LENZ, and their respective directors and certain of their executive officers may be considered participants in the solicitation of proxies from Graphite's shareholders with respect to the proposed Merger under the rules of the SEC. Information about the directors and executive officers of Graphite is set forth in its Annual Report on Form 10-K for the year ended December 31, 2022, which was filed with the SEC on March 20, 2023 and amended on April 27, 2023, subsequent Quarterly Reports on Form 10-Q and other documents that may be filed from time to time with the SEC. Additional information regarding the persons who may be deemed participants in the proxy solicitations and a description of their direct and indirect interests, by security holdings or otherwise, will also be included in the Form S-4, the Proxy Statement and other relevant materials to be filed with the SEC when they become available. You may obtain free copies of this document as described above.

Merger of LENZ Therapeutics and Graphite Bio

Provides anticipated post-close ~$225M cash balance to fund robust commercialization

Transaction Summary

- Lenz Therapeutics, a late-stage biopharmaceutical company focused on developing and commercializing innovative therapies to improve vision, intends to merge with Graphite Bio (NASDAQ: GRPH)
- Upon close, Graphite Bio is expected to be renamed “LENZ Therapeutics” (NASDAQ: LENZ)
- Supported by the Board of Directors of both companies and is subject to shareholder approval and other customary closing conditions

Overview

- Expected pro forma ownership (prior to contemplated private financing) is approximately 65% LENZ and 35% Graphite, subject to adjustment based on Graphite’s net cash at closing and before giving effect to the concurrent PIPE
- Transaction expected to provide runway to achieve commercial launch and well into commercialization
- Proceeds to LENZ to include anticipated $115M net cash from Graphite and concurrent PIPE financing of $53.5 million with a syndicate of healthcare investors led by LENZ’s existing investors, including participation from new investors
- Merger and concurrent financing expected to close in 1Q’24

Management and Pipeline

- Existing LENZ management to lead the combined company
- New Board of Directors will include 7 members (5 LENZ & 2 Graphite)
- Combined company will focus on advancing the development and commercialization of LNZ100/1

LENZ THERAPEUTICS – well-positioned for leadership in $3B+ presbyopia market

Phase 3 ongoing for exclusive**, once-daily aceclidine-based eye drop** with potential of providing **near vision improvement** during the **full work day**

Differentiated MOA Profile

Only miotic shown to achieve pupil sweet spot of <2mm miosis of the pupil with negligible myopic shift

Rapid and Durable Response

LNZ100 with 73% 3-line, 92% 2-line Near Vision improvement at 30min with +10hrs duration

Catalyst Rich

Ph3 topline 2Q24, NDA submission mid ‘24, launch upon FDA approval

Commercial Excellence

Critical infrastructure and leadership in place; focused on targeting ECPs and presbyopes

Market Exclusivity

Broad IP protection and potential NCE eligibility provide strong protection through at least 2039

Financed to Commercialization

PIPE and additional cash infusion gives sufficient runway well into commercialization

Proven Successful Team

Experienced team backed by Versant Ventures, RA Capital Management, Alpha Wave Global, Point72, Samsara BioCapital, Sectoral Asset Management and RTW Investments

Management and Board

Management:

Eef Schimmelpennink
President and CEO

Shawn Olsson
Chief Commercial Officer

Marc Odrich, MD
Chief Medical Officer

Marv Garrett
SVP Regulatory & Quality

Gerald Horn, MD
Senior Scientific Advisor & Founder

Melissa Rosness
VP CMC & Manufacturing

Kyle Casement
VP Finance

Board:

Eef Schimmelpennink
President and CEO, LENZ

Clare Ozawa, PhD
Managing Director, Versant

Zach Scheiner, PhD
Principal, RA Capital

Jim McCollum
Founder

Frederic Guerard
CEO, OPTHEA

Chris Dimitropoulos
Managing Director, Alpha Wave Global

Stefan Larson, PhD
Partner, Sectoral Asset Management

Shelley Thunen
CFO, RxSight

Management Team Experience:

Pfizer · J&J · PFEnex · Hospira · alvotech · Abbott · BOTOX COSMETIC · Alcon · Allergan Aesthetics an AbbVie company · BAUSCH + LOMB · visx WE MAKE THINGS CLEAR · UVALASIK · LasikPlus · LUMIFY

Problem

Presbyopia, the inevitable loss of near vision

Research shows adults over 50 lose on average 1.5 lines of near vision per 6 years[1]

Impacts

~128M[2]

People in the US

Potential **$3B+** Market

1. Progression of Near Vision Loss and Incidence of Near Vision Impairment in an Adult Chinese Population, Han, Xiaotong, et al, Ophthalmology, 124(5): page 734, May 2017.
2. Global Prevalence of Presbyopia and Vision Impairment from Uncorrected Presbyopia, Fricke, Timothy, et al, American Academy of Ophthalmology, vol 125, number 10, Oct 2018.

Solution

Aceclidine
Preservative free eye drop

The first and only, **pupil selective** miotic with potential to meet needs of all presbyopes and create loyalty based on **"all eyes, all day"** near vision improvement brand mission

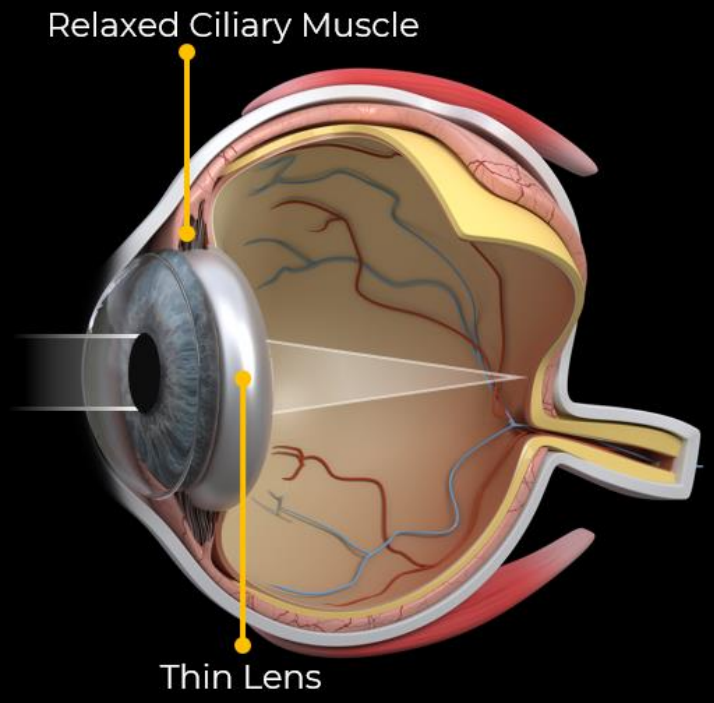
Best-in-class potential

agent for presbyopia with ability to address entire patient population

How the eye focuses light for near and distance vision in the healthy eye, and the problem of presbyopia

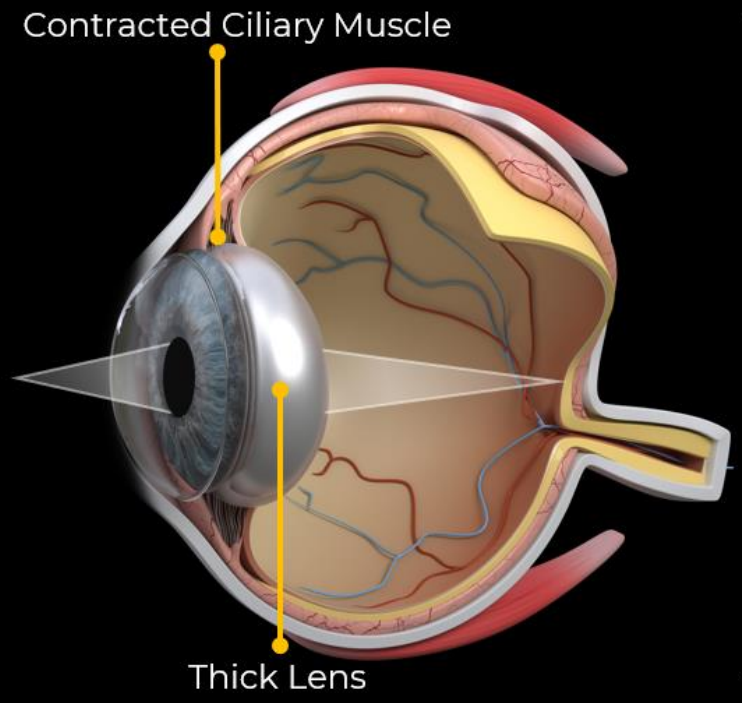
Distance vision

The lens is in its native shape which enables far vision



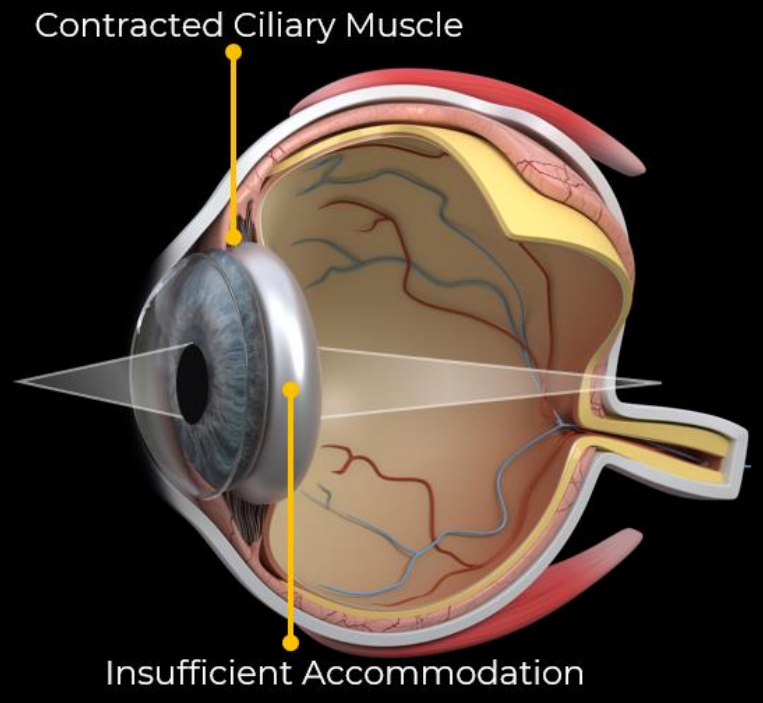
Near vision for healthy eyes

The lens changes shape, known as accommodation, to allow focus on close objects



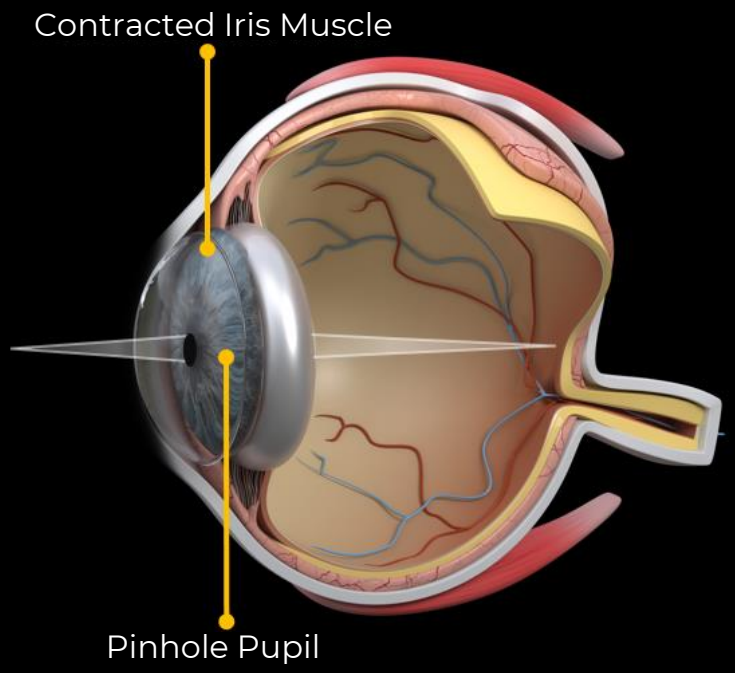
Near vision in Presbyopia

The lens hardens with age, limiting accommodation and impairing near vision

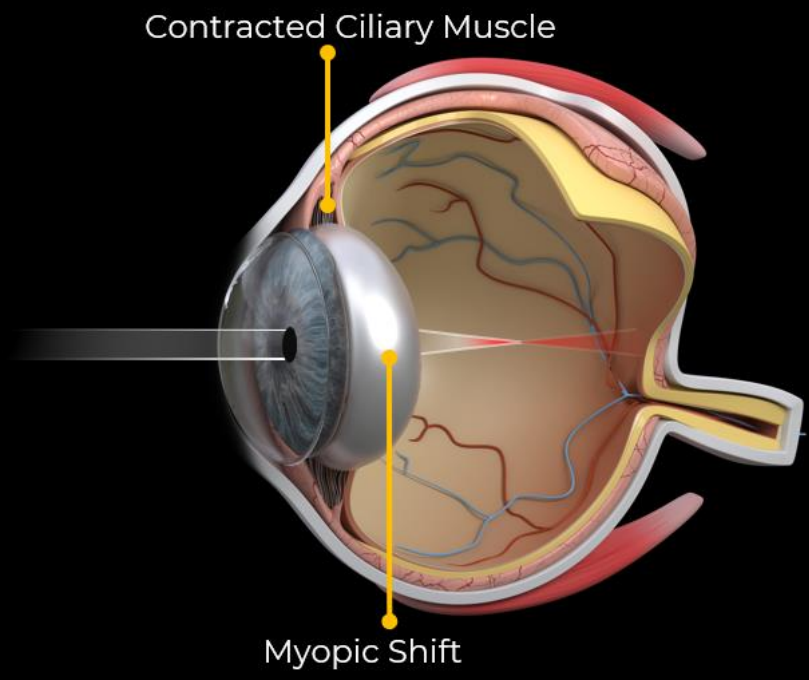


Ideal presbyopia eye drop creates a pinhole pupil while avoiding a myopic shift that impacts distance vision

Create a pinhole pupil



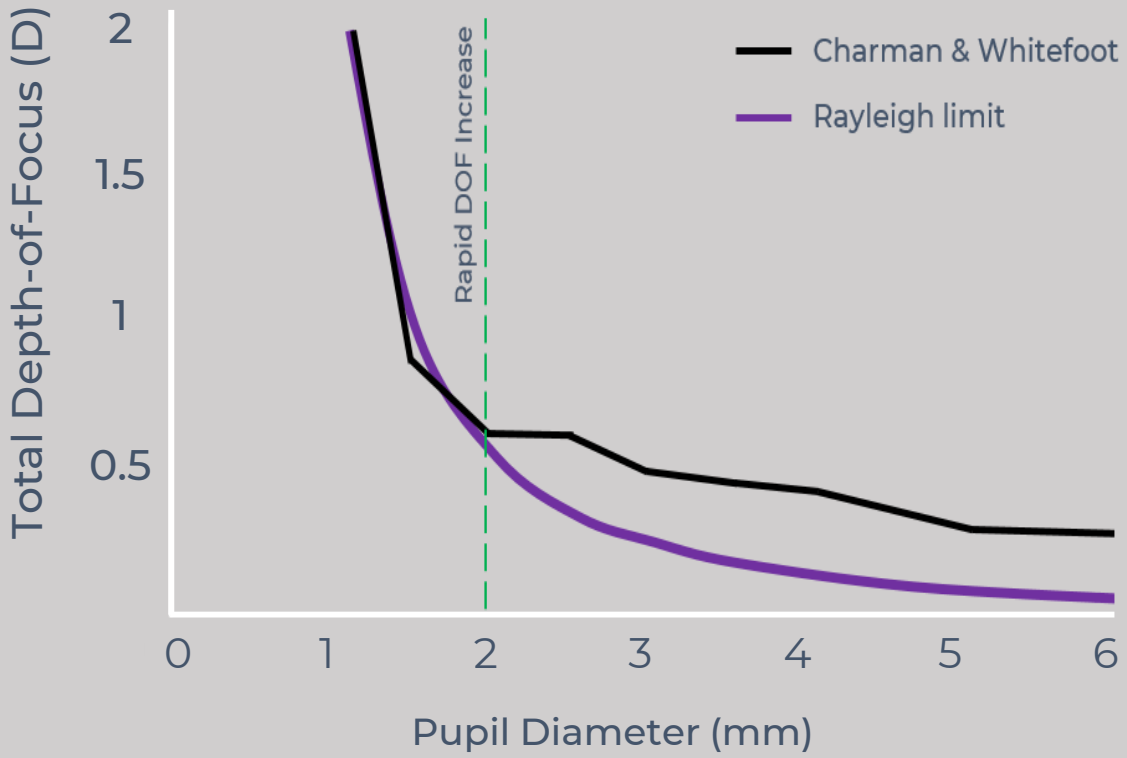
While avoiding a myopic shift



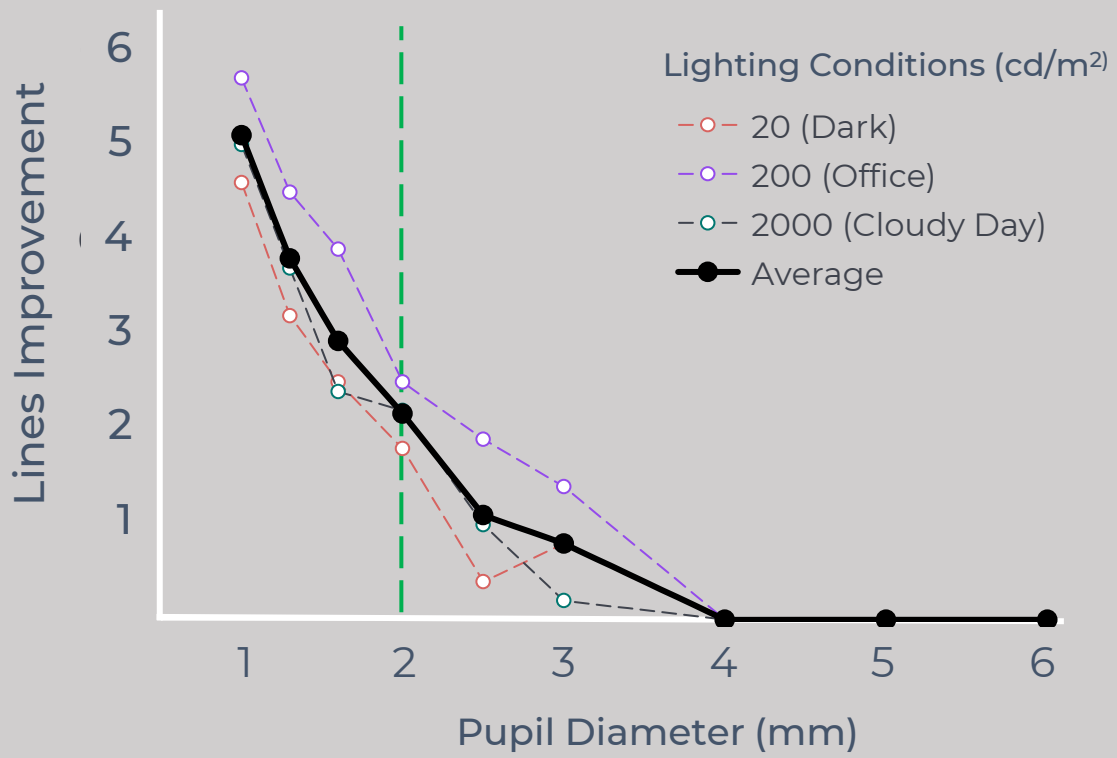
FDA requires 3 lines of near vision improvement while not losing 1 or more lines of distance vision

Pupil diameter correlates to depth of focus and near vision improvement

Total Depth-of-Focus



Near Vision Improvement



Near Vision Improvement: Psychophysical visual acuity was tested using an 8 orientation, forced choice paradigm, using maximum contrast Landolt C targets, while independently controlling pupil size, defocus levels, and luminance. Pupil was manipulated with 8 artificial pupils (1, 1.3, 1.6, 2, 2.5, 3, 4, 6mm) imaged onto the subjects dilated entrance, N=2.

Source: Accommodation, the Pupil, and Presbyopia –Kenneth J. Ciuffresa; Pinholes and presbyopia: solution or sideshow? - Charman - 2019 - Ophthalmic and Physiological Optics - Wiley Online Library; and Effect of target luminance on Optimum pupil diameter for presbyopic eyes Renfeng Xy et. Al.

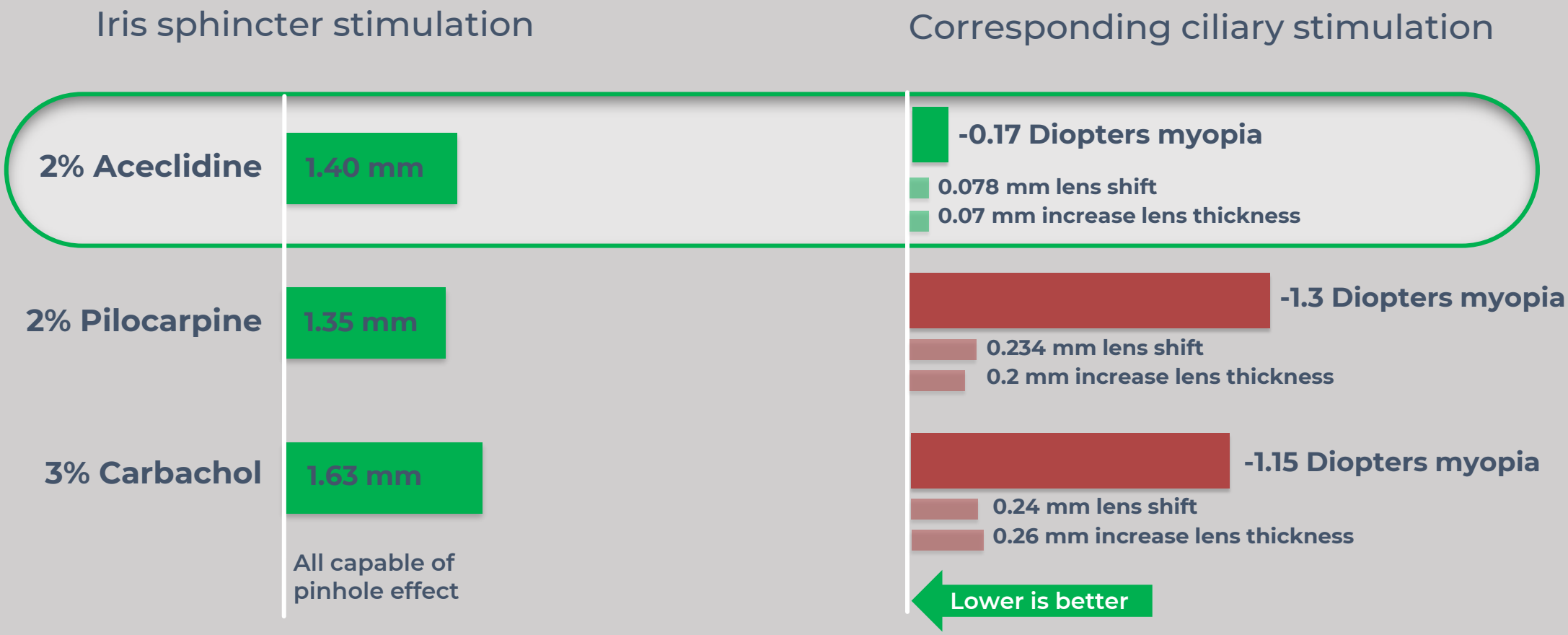
Aceclidine is highly pupil-selective compared to other miotics

	Iris sphincter muscle EC_{50} (nmol/l)	Ciliary muscle EC_{50} (nmol/l)	Independence ratio ciliary to iris EC_{50}
Aceclidine	**900**	**25,000 Longitudinal** **20,000 Circular**	**28** **22**
Pilocarpine	**1,800**	**3,360 Longitudinal** **2,840 Circular**	**1.9** **1.6**
Carbachol	**106**	**574 Longitudinal** **560 Circular**	**5.4** **5.3**

EC50 is the amount of drug required to elicit 50% of the maximum muscle response, research based on 29 pairs of eyes and donor ages ranging from 41 – 89.

Source: Selectivity of muscarinic agonists including aceclidine and antimuscarinics on the human intraocular muscles, Hitoshi Ishikawa, Desantis, Patil, journal of ocular pharmacology and therapeutics, volume 14, number 4, 1998.

Uniquely achieving <2mm pupil without myopic shift



Academic research on general miotics, concentrations in research not necessarily under development. Pinhole data at 45 minutes. Diopters myopia, lens thickness and lens shift measurements for ages 40-60 years old.

Source: Ultrasonographic Study of the Effect of Different Myotics on the Eye Components J. François and F. Goes Ophthalmological Clinic of the University of Ghent (Director: Prof. J. François), Ghent.

Phase 2 INSIGHT trial compared LNZ100 and LNZ101 against vehicle on key variables

LNZ100

1.75% Aceclidine

- **Ready to use**
- **Preservative Free Eye Drop**

LNZ101

1.75% Aceclidine + 0.08% Brimonidine

- **Ready to use**
- **Preservative Free Eye Drop**
- **Extended duration**

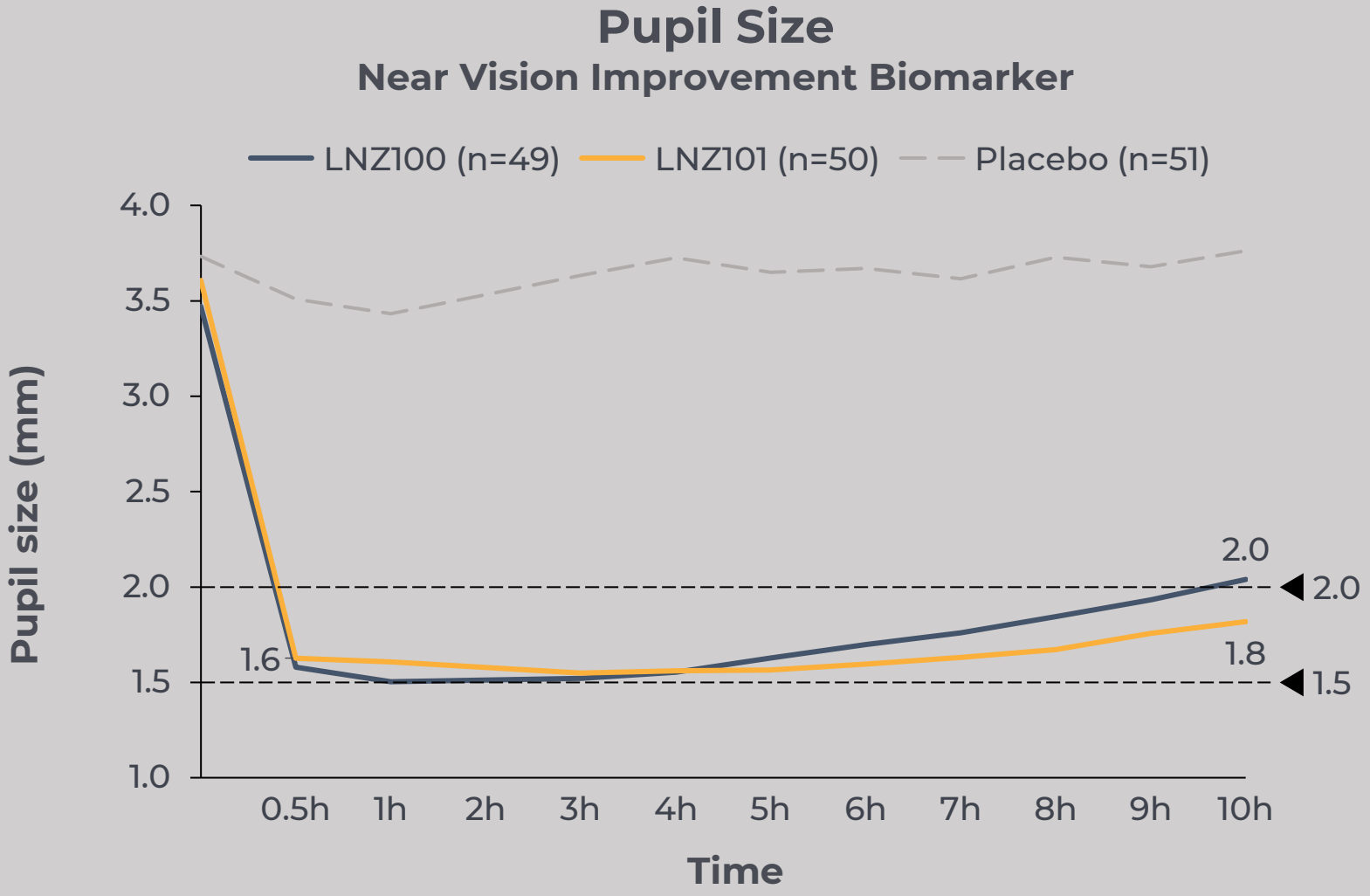
Study Design

- Multicenter safety and effectiveness study
- 5 US Sites, 50+ Patients
- Double-masked, randomized, crossover
- Placebo controlled
- 10 hr duration

Study Population

- Average Age: 56 (46 – 73)
- Refractive Range (-3.25D SE to +1.5D SE)
- 60%/40% Female/Male
- 60%/40% Brown Iris/Other
- Includes Post Lasik presbyopes and Pseudophakes

LNZ100 and LNZ101 reduce pupil diameter <2mm for up to 10 hours



Average pupil size reduced **to ~1.6mm at 30 minutes**

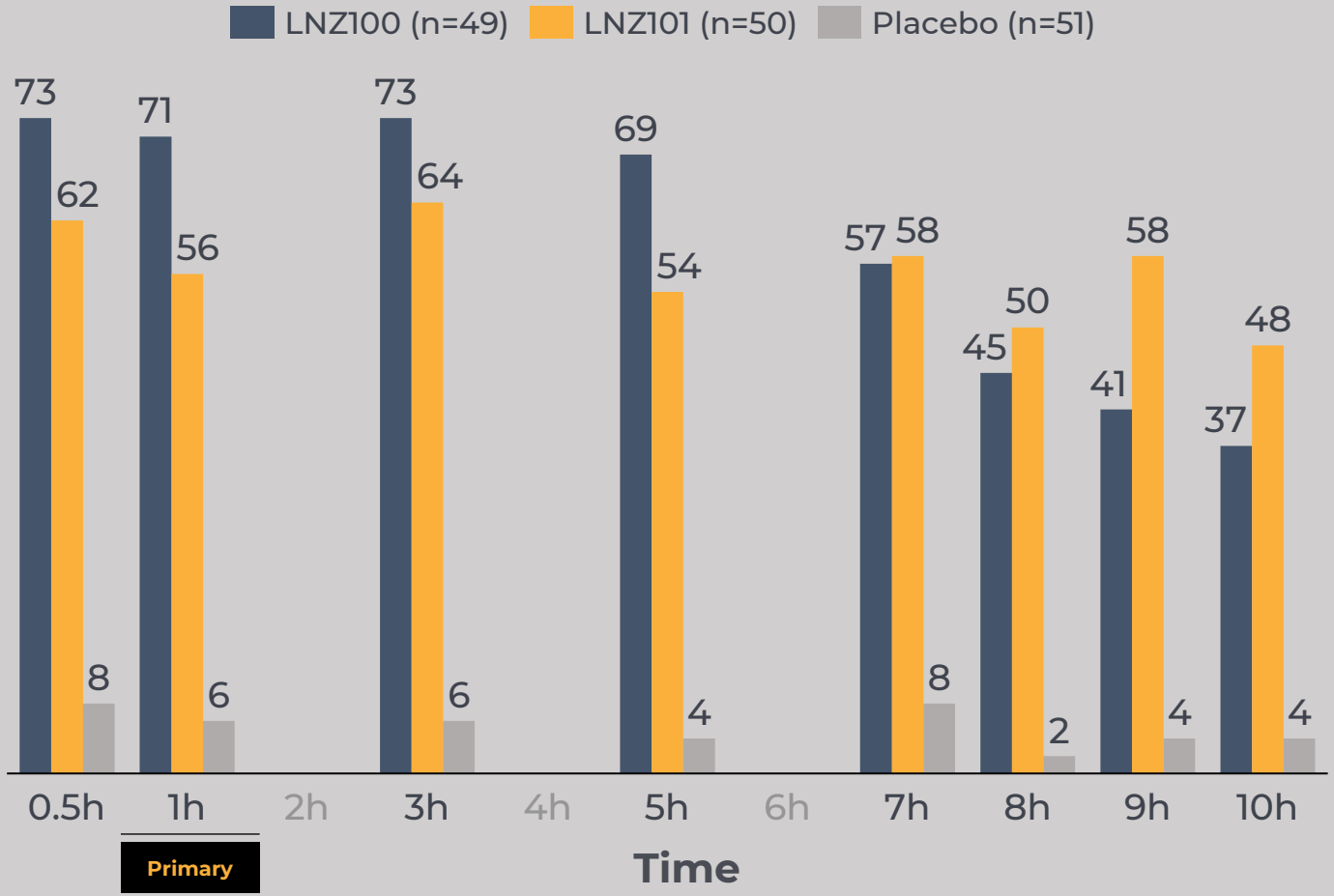
Pupil size **correlates to** lines of **near vision improvement**

Average pupil size **maintained in sweet spot** of 1.5mm to 2mm **for 10 hours**[1]

1. Independent, peer-reviewed academic studies have shown that reducing pupil diameters below 2mm is correlated with a dramatic increase in depth of focus.

% of subjects with ≥3-line near vision improvement over time

No loss of 1-Line or More BCDVA



Extended **category leadership** with potential best-in-class data for efficacy and duration for both LNZ100 and LNZ101

Rapid onset with **73% and 62%** efficacy within **30 min**, respectively

Extended Duration with **significance for 10 hours,** LNZ101 statistically separates from LNZ100 at 9 hours

94% of the subjects achieved distance corrected near visual acuity of **20/40 or better**

Well tolerated with no drug-related SEA and reported AE's were mostly mild, transient and self-resolving

Note: p<0.0012 for all time points compared to vehicle. BCDVA = Best Corrected Distance Visual Acuity.

Patient satisfaction confirms commercial opportunity

94%
Achieved DCNVA 20/40 or better

0%
None could Pre-IP

Patient Reported Outcomes

Did you notice NV improvement?

95% **Noticed improvement in NV**

If you noticed improvement, would this allow you to be less dependent on reading glasses?

87% **less dependent on glasses**

If you would like to use this product at home, how many days are you likely to use the drop?

73% **would use 4-7 days/week**

Source: PRO questionnaire.
Note: Percentages represent the average response for LNZ100 & LNZ101, DCNVA (Distance Corrected Near Vision Acuity)

Phase 3 CLARITY trial based on INSIGHT Phase 2

Started in Dec 2022 and studies running in parallel

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1.75% Aceclidine

- **Ready to use**
- **Preservative Free Eye Drop**

LNZ101

1.75% Aceclidine + 0.08% Brimonidine

- **Ready to use**
- **Preservative Free Eye Drop**
- **Extended duration**

Efficacy and Safety

- **Clarity 1:** LNZ101 v. LNZ100 v. Brimonidine
- **Clarity 2:** LNZ101 v. LNZ100 v. Vehicle

Long Term Safety

- **Clarity 3:** LNZ101 v. LNZ100 v. Vehicle

Design

- Multicenter, US Sites, 1000+ Patients
- Double-masked, randomized
- Placebo controlled, 10 hr duration

Study Population

- Age Range: (45 – 75)
- Refractive Range (-4D SE to +1.0D SE)
- Allows Post Lasik presbyopes and Pseudophakes

Note: LNZ100 and LNZ101 are investigational drugs and not FDA approved, and LENZ will select the single best product to take forward.

Ongoing Phase 3 trials for LNZ100 and LNZ101 tracking to 1Q24 LPLD

Clarity 1:
Safety & Efficacy
6 weeks

19 Sites
n=~435
LN100, LNZ101, Brimonidine

Patient Enrollment
100%[1]
0 20 40 60 80 100

Clarity 2:
Safety & Efficacy
6 weeks

15 Sites
n=~222
LNZ100, LNZ101, Vehicle

Patient Enrollment
95%[1]
0 20 40 60 80 100

Clarity 3:
Long Term Safety
6 months

37 Sites
n=361
LNZ100, LNZ101, Vehicle

Patient Enrollment
100%
0 20 40 60 80 100

Note: LPLD = Last patient last dose.
1. Subject enrolled or ready to be randomized as of November 14, 2023.

Presbyopia eye drops is an estimated $3B US market opportunity and impacts ~4x more people than dry eye disease

Affected Population

~1.8B Global Presbyopes[1]

~128M US Presbyopes

According to American Optometric Association

~8M US Users

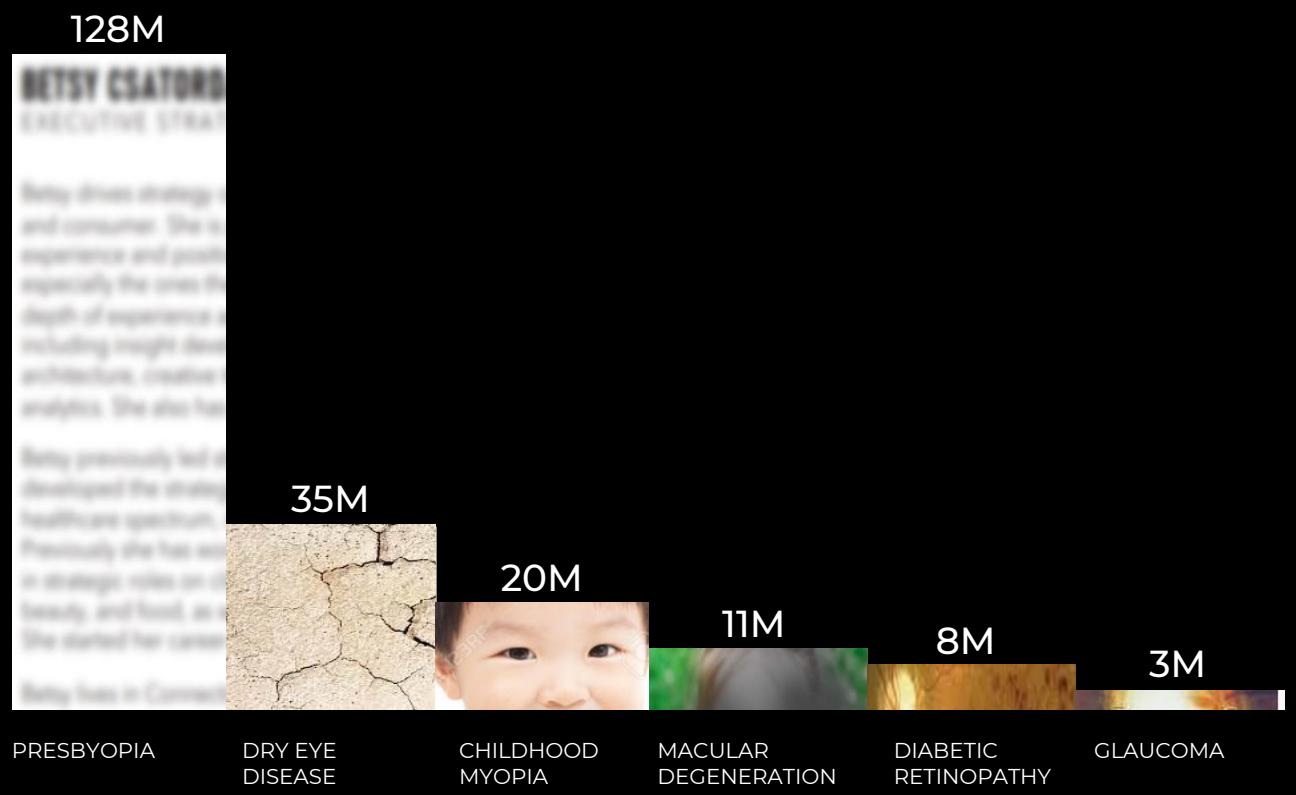
Estimate assuming a 6% adoption rate of the addressable presbyope patient population in the United States, which is below our estimated number of users of LASIK

Market Value

$3B+ US Market

Based on existing market price for Vuity and a conservative refill rate

US Population Impacted



Source: Dry Eye Disease: Eyes on Eyecare, The 2022 Dry Eye Report. Childhood Myopia: The Management Opportunity in the United States Using the 2020 Census, Fortin and Kwan, Investigative Ophthalmology & Visual Science, vol 63, June 2022. Macular Degeneration: Epidemiology of Age-Related Macular Degeneration (AMD), Pennington and DeAngelis, Eye and Vision, 2016. Diabetic Retinopathy: Americans in the Dark on Diabetic Retinopathy Symptoms, Risks, Survey Finds, American Society of Retina Specialists, Oct 2020. Glaucoma: Don't Let Glaucoma Steal Your Sight!, Vision Health Initiative, Nov 2020.

1. Global Prevalence of Presbyopia and Vision Impairment from Uncorrected Presbyopia, Fricke, Timothy, et al, American Academy of Ophthalmology, vol 125, number 10, Oct 2018.

LENZ has the potential to deliver on a significant unmet need

Broad Patient Population
Proven to work for most presbyopes and in broad range of ages and refractive errors

Highly Significant Response Rates
LNZ100 with 73% 3-line, 92% 2-line NV improvement at 30 min with +10hrs duration

ECP and Consumer loyalty
Commercial strategy aimed at building a brand with emotional connection and value

Broad exclusivity and patent protection layers

	FDA Exclusivity	Granted Patents	Patents Under Review
US 	5 year NCE[1]	18 (Exp. 2034 - 2039)	13 (Beyond 2039)
Ex-US 	N/A	18	70

Note: Patents include both method of use and formulation patents as of August 23, 2023.
1. Potentially eligible if approved in the US as first drug containing aceclidine as an active ingredient.

Global Strategy

High Ex-US interest in licensing deals

Greater China Licensing Agreement in place

- One of largest China Phase 2 ophthalmology deals
- $15M Upfront, $15M Development milestone, $80M in Sales milestones
- Royalty rates between 5 – 15%
- CTA (Clinical Trial Application) approved by NMPA

LENZ Therapeutics

Well-positioned for potential leadership in $3B+ market

Phase 3 ongoing for exclusive**, once-daily aceclidine-based eye drop** with potential of providing **near vision improvement** during the **full work day**

Differentiated MOA Profile

Only miotic shown to achieve pupil sweet spot of <2mm miosis of the pupil with negligible myopic shift

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Catalyst Rich

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Commercial Excellence

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