LENZ THERAPEUTICS

November 2023

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

Late stage exclusive **aceclidine-based eye drop** with potential of providing **all day** seamless vision for the **vast majority of presbyopes**

Unique MOA Profile	Only miotic shown to achieve pupil sweet spot <2mm w/o myopic shift
Best-in-class clinical data	73% 3-line and 92% 2-line Near Vision improvement at 30min with +10hrs duration
Late Stage	Ongoing Phase 3 trials for LNZ100 and LNZ101
Market Exclusivity	Broad IP protection and NCE status provide strong protection
Proven successful team	Experienced team backed by RA Capital, Alpha Wave Ventures, Versant Ventures, Sectoral Asset Management, Point 72, RTW and others

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

People in the US

Potential **$3B+** Market

Promise of a once-daily eye drop solution is welcomed by all age groups

Adapting Early

Seriously Consider
68%

4 – 7 days/wk Usage[1]
80%

45 – 54

Busy Midlife

Seriously Consider
62%

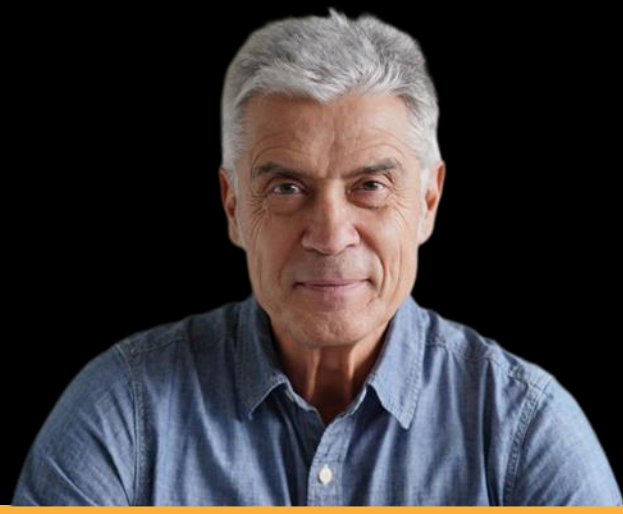
4 – 7 days/wk Usage[1]
79%

55 – 64

Active Aging

Seriously Consider
51%

4 – 7 days/wk Usage[1]
79%



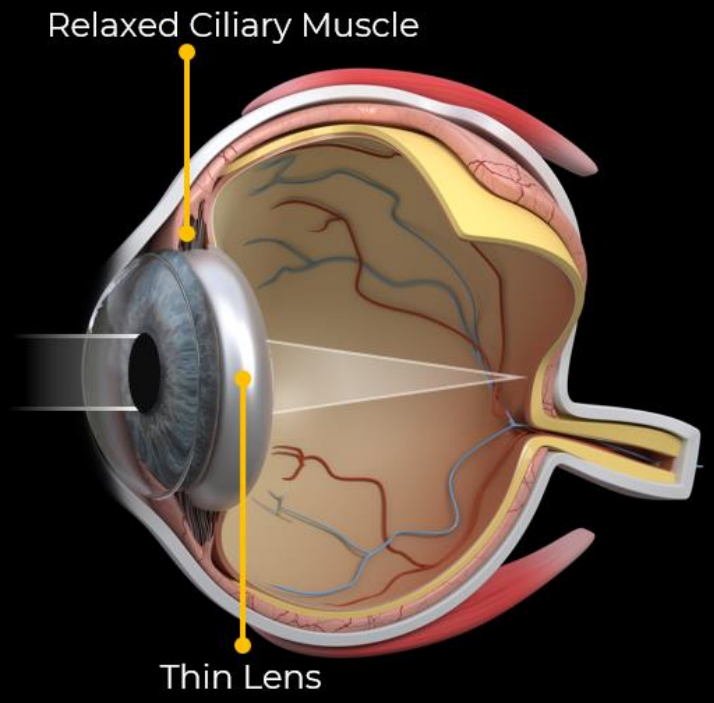
+65

Source: LENZ commissioned survey of 1,358 presbyopes. 1. Percent of those who might or would seriously consider (n=1,293).

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

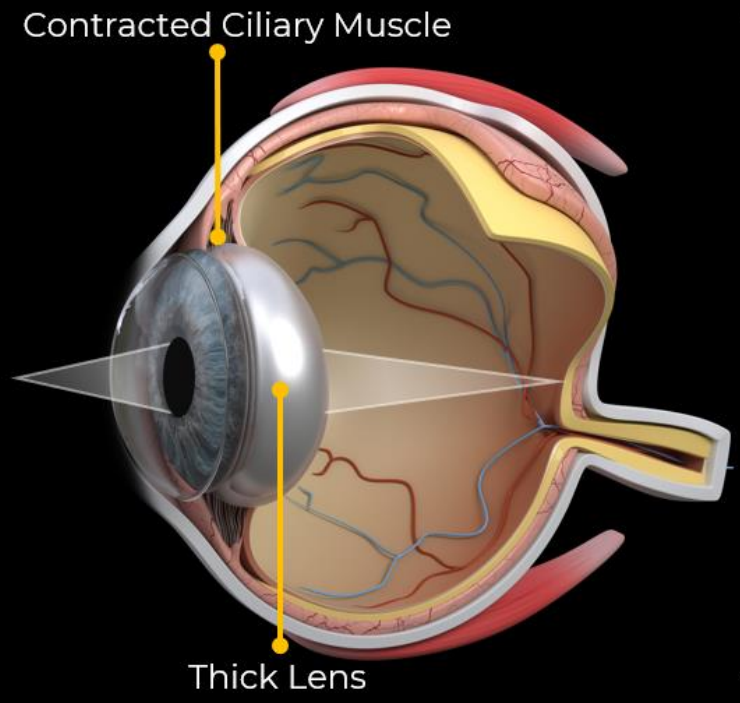
Distance vision

The lens is in its native shape which enables far vision



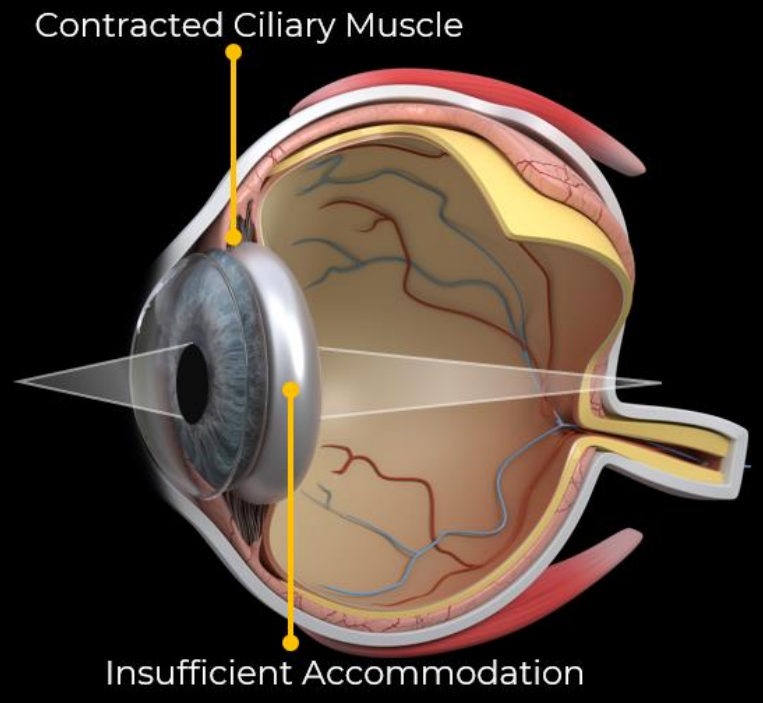
Near vision for healthy eyes

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



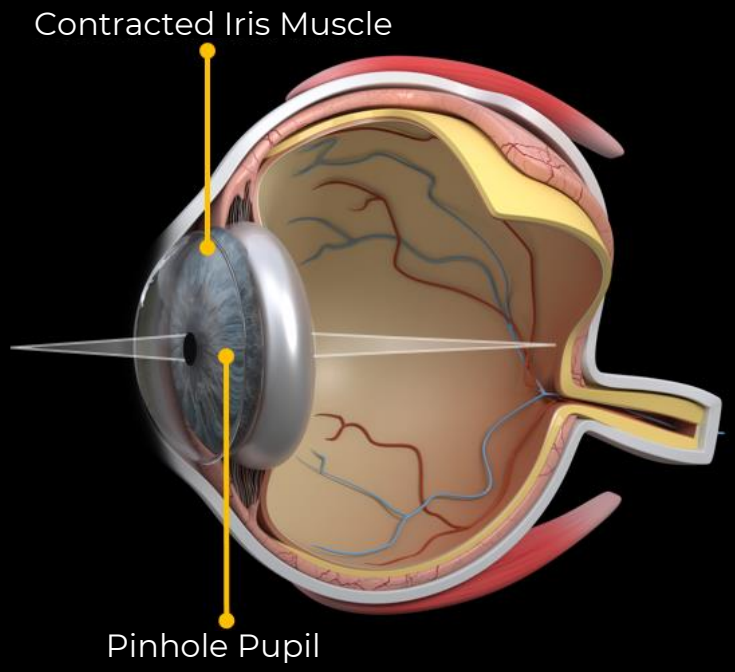
Near vision in Presbyopia

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

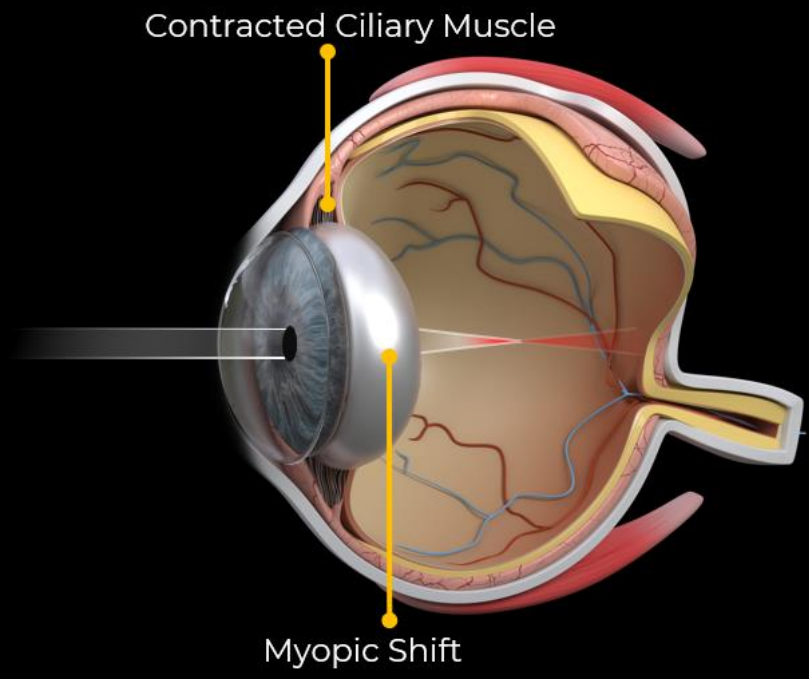


Ideal presbyopia eye drop creates a pinhole pupil while avoiding a myopic shift that impacts distance vision

Create a pinhole pupil



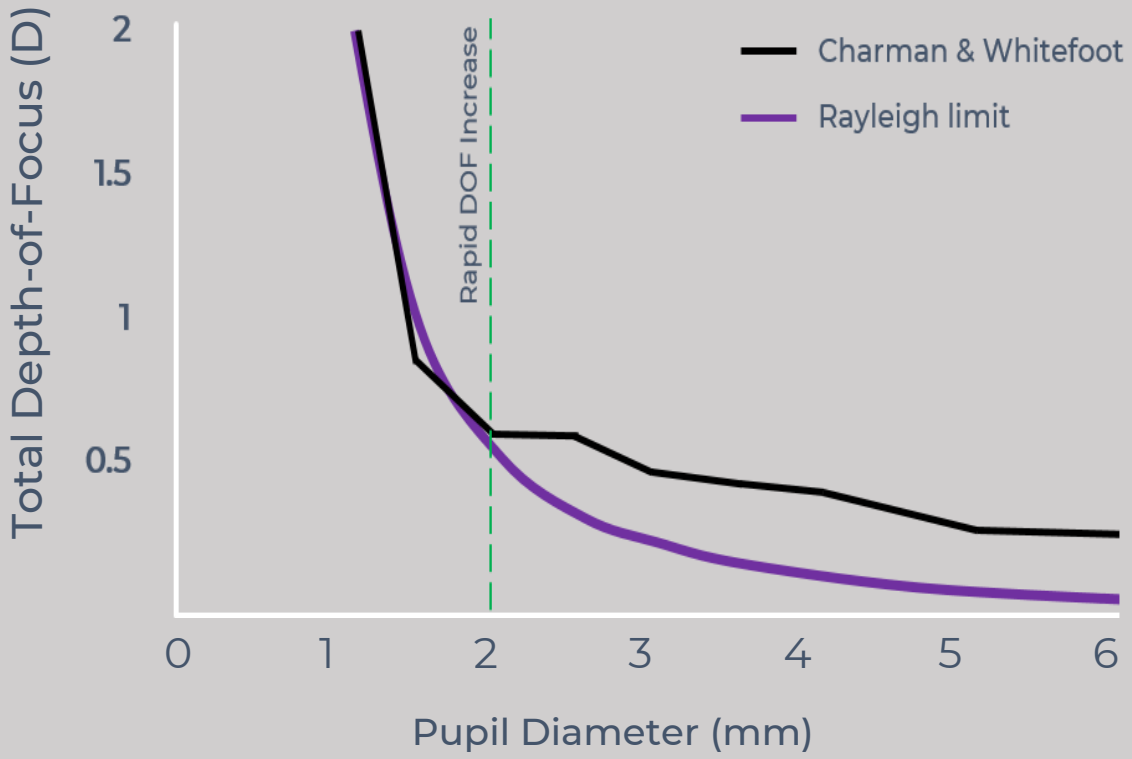
While avoiding a myopic shift



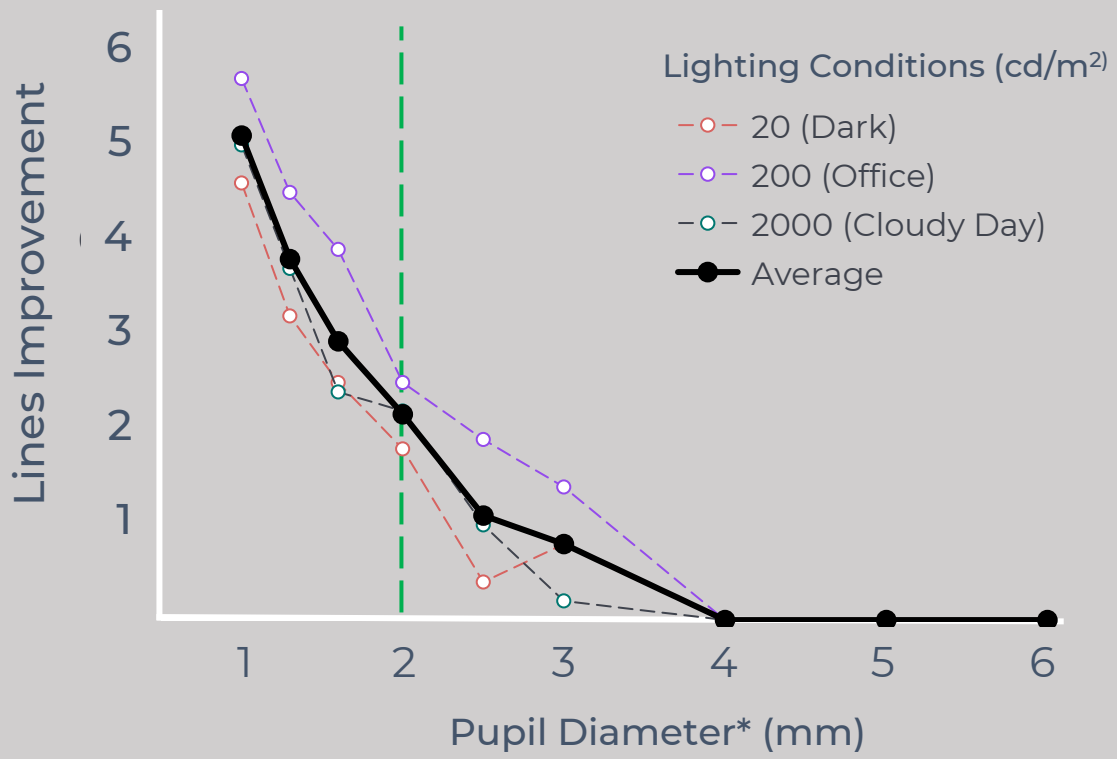
FDA requires 3 lines of near vision improvement while not losing 1 or more lines of distance vision

Research shows reducing the pupil diameter below 2mm dramatically increases depth-of-focus and near vision [7,8]

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

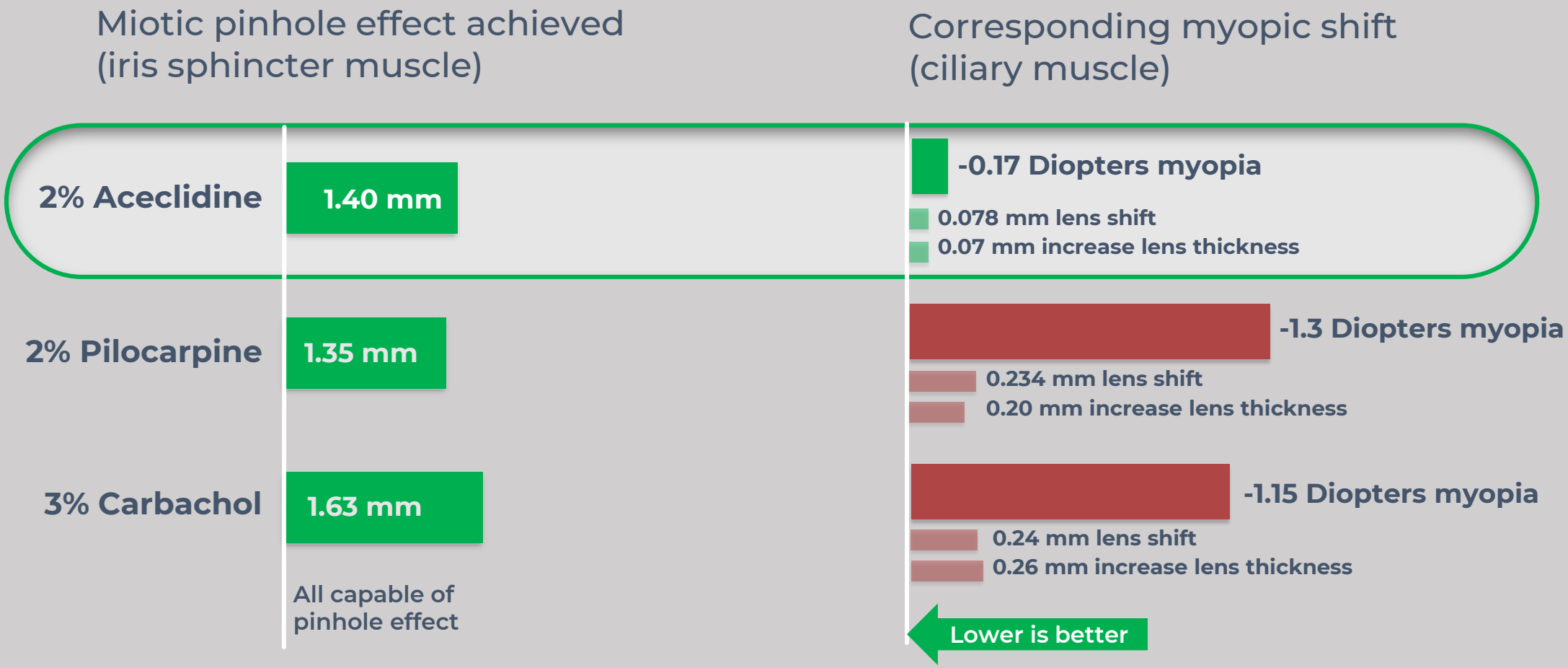
Aceclidine is the only pupil selective miotic[6]

	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**

Higher is better

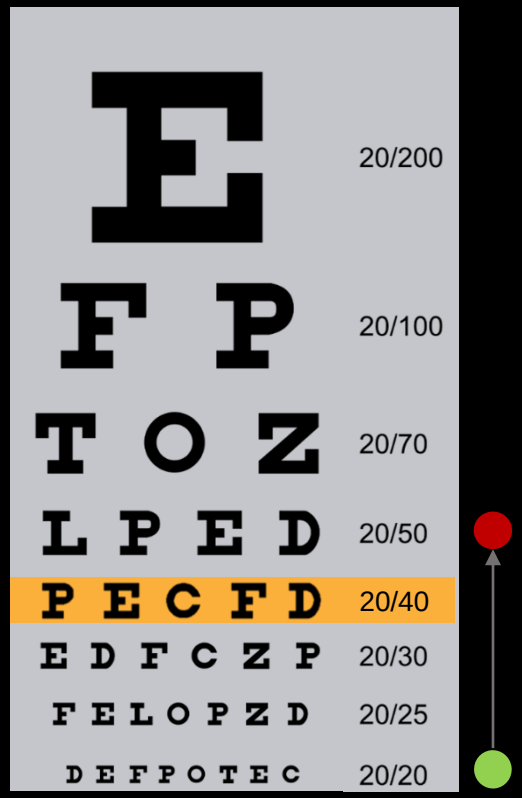
EC50 is the amount of drug required to elicit 50% of the maximum muscle response, research based on 29 pairs of eyes and donor ages ranging from 41 - 89

Uniquely achieving <2mm pupil without myopic shift[4]

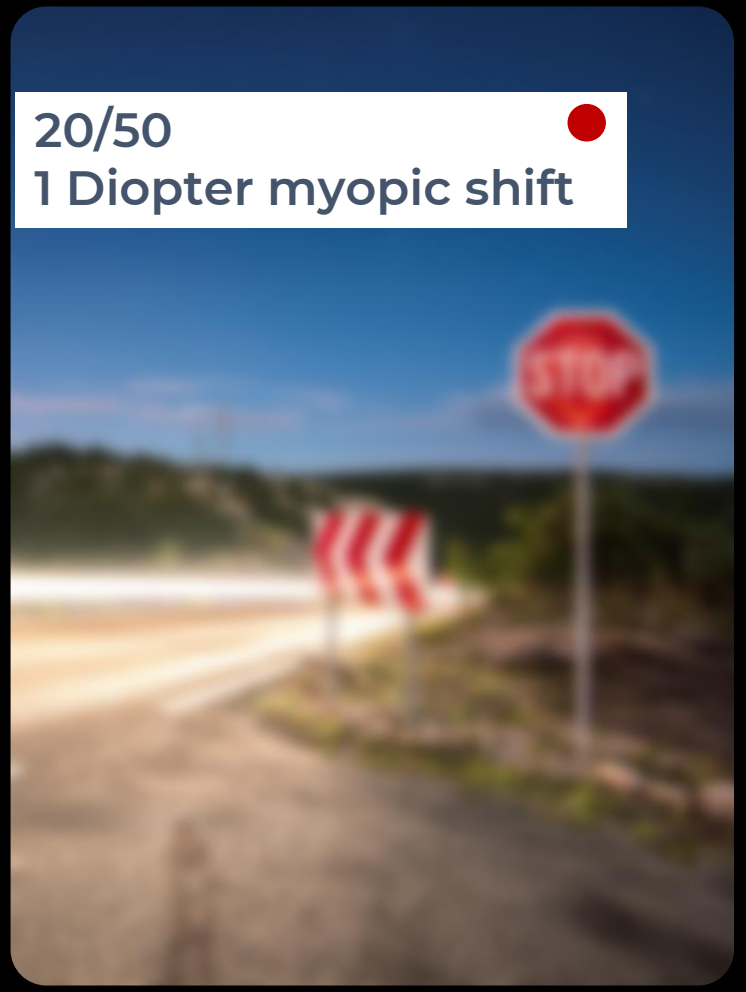


Academic research on general miotics, concentrations in research not necessarily under development. Pinhole data at 45 minutes. Diopters myopia, lens thickness and lens shift measurements for ages 40 – 60 years old.

One diopter of myopic shift is meaningful



20/40 Drivers test line



Addressable market is largest when pinhole effect is decoupled from myopic shift

	Adapting Early	Busy Midlife	Active Aging	
				Presbyopia market segments
	40 – 54 yrs	55 – 64 yrs	Over 65 yrs	
	31%	30%	39%	Target Market
Aceclidine	**100%**			**All Eyes / All Day**
Other miotics	**<20%**			**Early Presbyopes / Emmetropes**

Aceclidine
Preservative free eye drop

The first and only **pupil selective** miotic with potential to provide **all eyes, all day** near vision improvement

Best-in-class potential

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 + Brimonidine

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

Study Design

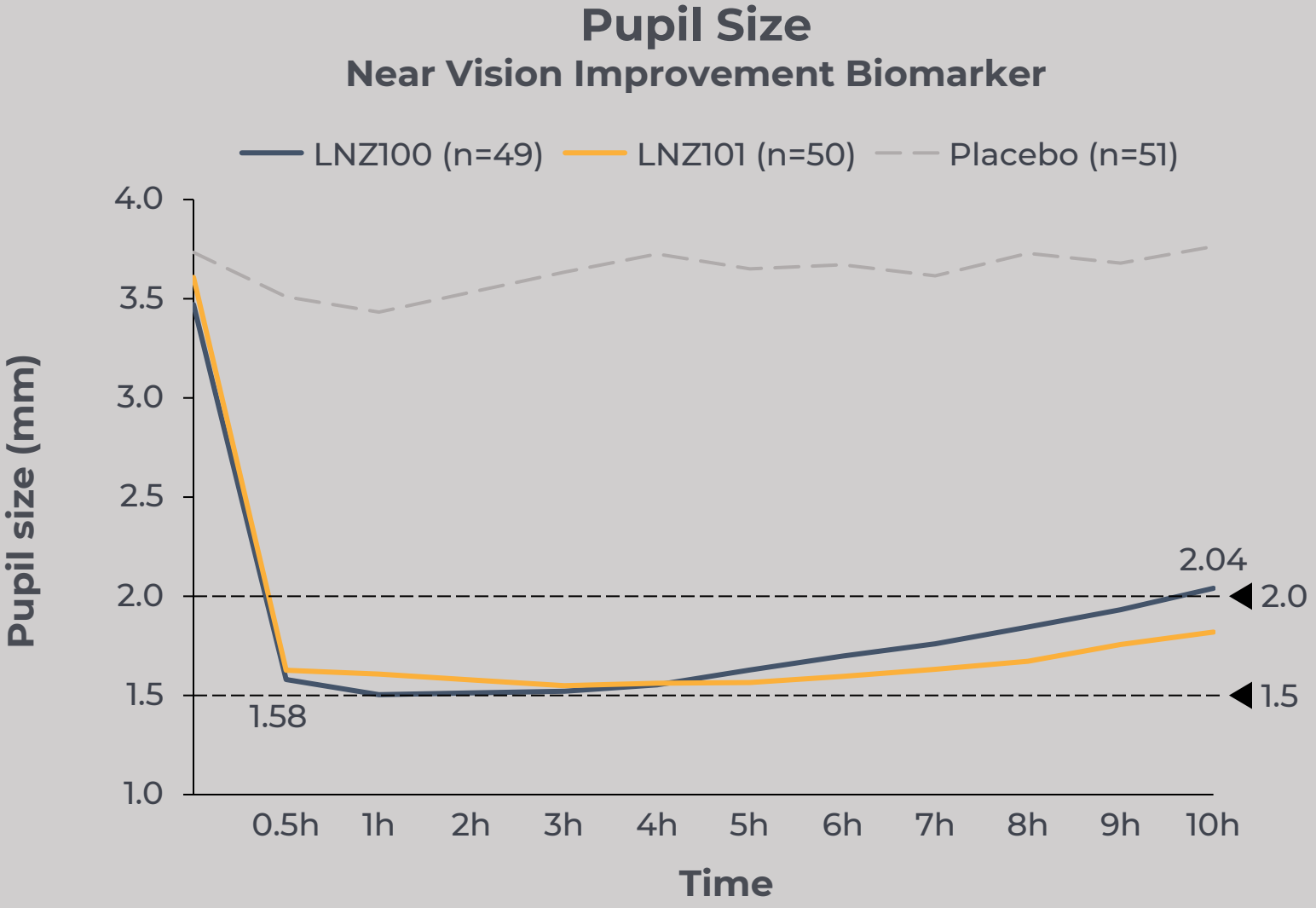
- Multicenter safety and effectiveness study
- 5 US Sites, 50+ Patients
- Double-masked, randomized, crossover
- Placebo controlled
- 10 hr duration

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 are investigational drugs and not FDA approved

Pupil diameter within the sweet spot for 10 hours

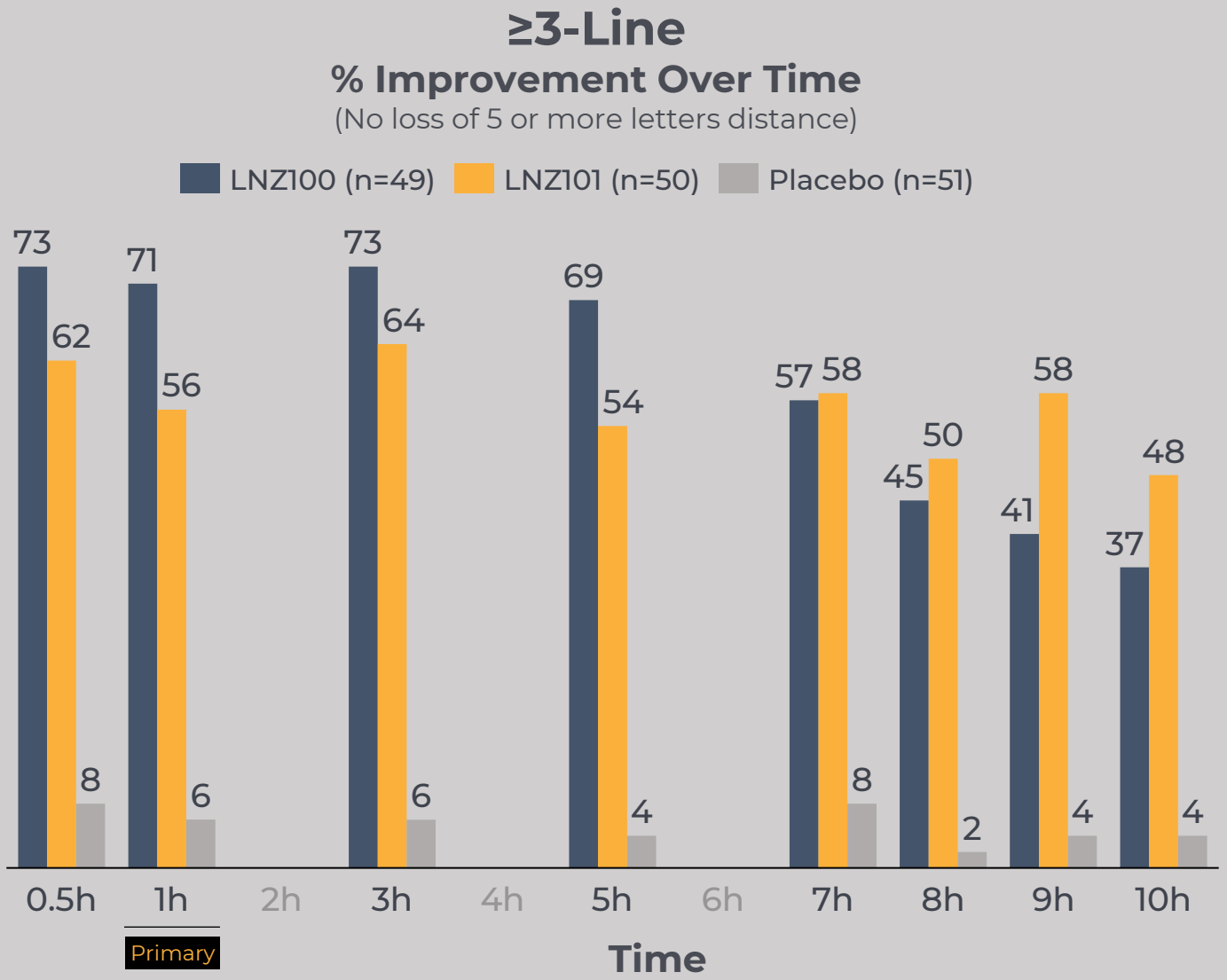


Average pupil size reduced **to ~1.6mm at 30 minutes**

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

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

Primary 1 hour endpoint met and 10 hours duration



p<0.0012 for all time points compared to vehicle

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

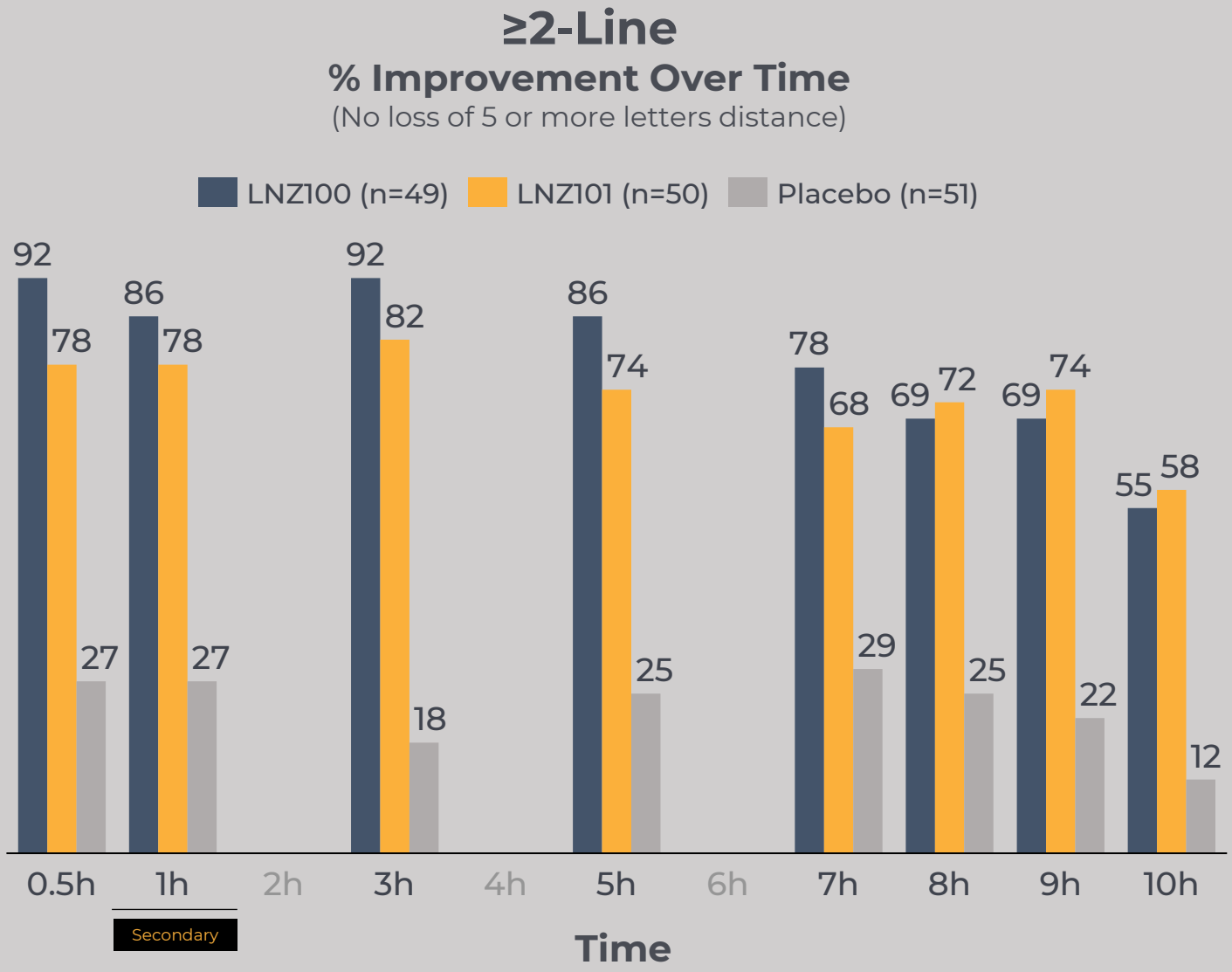
Rapid onset with resp. **73% and 62%** efficacy within **30 min**

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 **placebo-controlled** study

Secondary 1 hour endpoint met and 10 hours duration



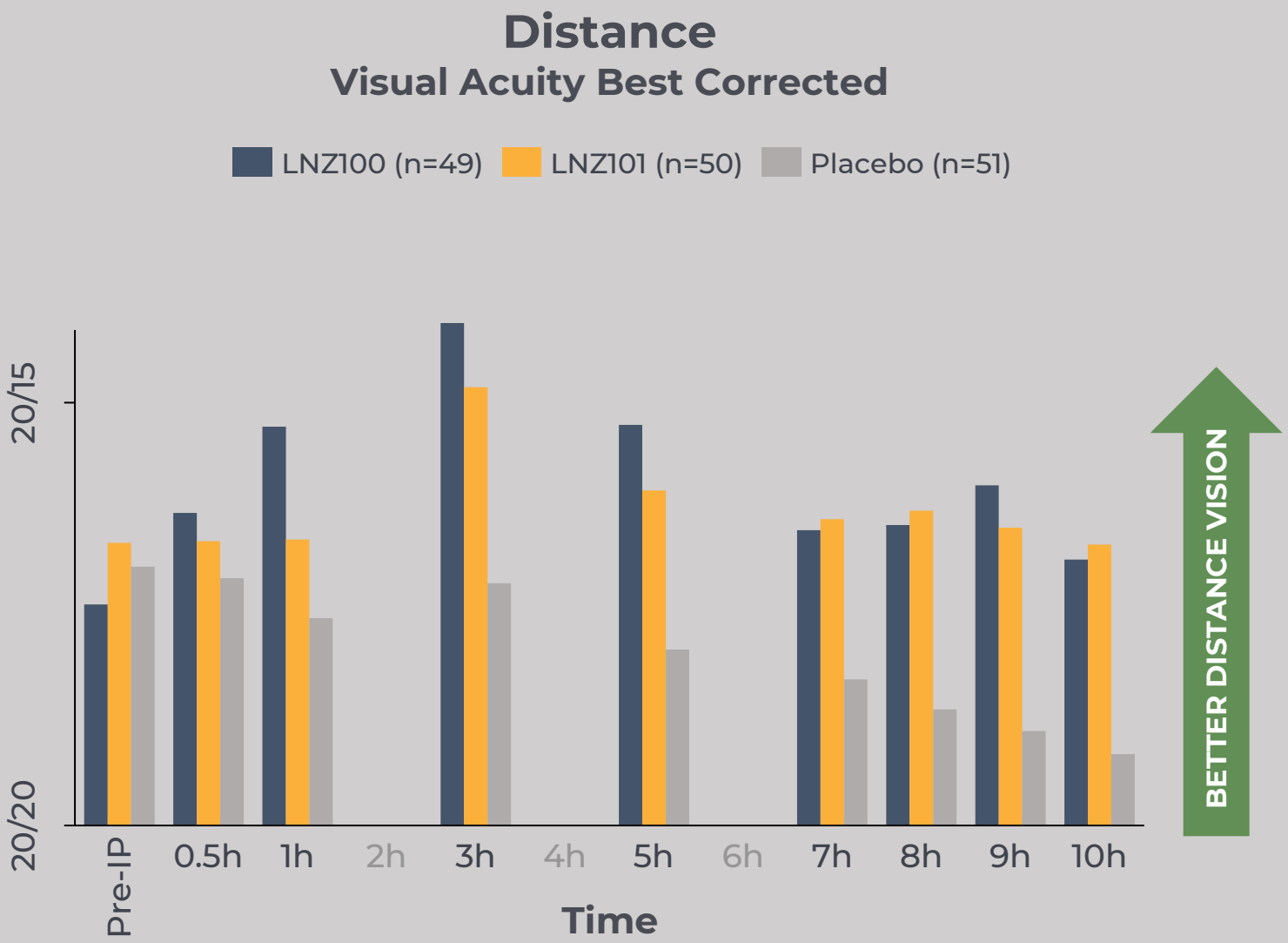
p<0.0001 for all time points compared to vehicle

Both LNZ100 and LNZ101 **provided clinically meaningful 2 lines** or more NV improvement **for almost all patients**

Rapid onset with resp. **92% and 78%** efficacy within **30 min**

Extended duration with **significance for 10 hours**

No impact to distance vision in normal and low light



No impact to distance vision in **normal light**

No impact to distance vision in **low light**

Well tolerated, No drug related serious adverse events

European historical use of 400M doses confirms expected low side effect profile

Long history of use for Glaucoma

- Approved for Glaucoma in Europe in 1970's[5]
- Approved at higher concentration and QID dosing[5]
- Marketed in 12 European countries and 400M doses
- Rapid anterior chamber penetration[5]
- Well tolerated with no tachyphylaxis
- Expected US New Chemical Entity

Source: IQVIA report on Aceclidine sales and volume 1998 – 2016

Management and Board

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Chief Medical Officer

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