ocumetics
TECHNOLOGY CORP

In Focus.

April 2022 V14

About the Company.

ocumetics

- Based in Vancouver.
- Advanced lens technology.
- Garth Webb, founder and inventor.
- TSX.V listing.

MANAGEMENT TEAM

- CEO since 2017.
- CFO 2011-2017.
- 37 years of business leadership experience.

DR. MARK LEE,

PRESIDENT AND CEO

- Director, Stulting Research Center.
- Professor of Ophthalmology Emeritus, Emory University.
- Director and Principal Investigator for multiple clinical trials.
- Former chair, FDA Advisory Panel.

DR. DOYLE STULTING,

CHIEF MEDICAL OFFICER

- Founder of Ocumetics.
- 45 years of experience in clinical eye care and applied vision science.
- Inventor of the Bionic Lens™.
- Cofounded Complete Eye Care Optometry Clinic.

DR. GARTH WEBB,

FOUNDER/CHIEF SCIENTIFIC OFFICER

Board Member

- CFO since September 2021.
- 25+ years of experience leading public and private companies.
- Co-founder and Director of Quantum Blockchain Technologies Ltd. (CPC that merged with Ocumetics).

ROGER JEWETT, CA, CPA,

CHIEF FINANCIAL OFFICER

Board Member

BOARD OF DIRECTORS

SANDI GILBERT

- CEO, InterGen, a private Scale Up fund that invests in pre-Series A companies led by extraordinary teams with proven solutions and large markets.
- Founder, PoweredByDealPoint, a company involved in financing startup companies.
- Board member, National Angel Capital Association, the USA Angel Capital Association, NRC-IRAP, New Economy, Alberta Securities Commission.

ROBERT QUINN, JD

- Independent businessman with years of diverse board, management, and legal experience in the international mining industry.
- Extensive corporate governance, environmental, transactional, M&A, financing, contract, development, compliance and litigation experience with companies developing and operating numerous mines and conducting exploration programs internationally.

DAYTON MARKS, MBA

- Director, Bonanza Mining Corporation.
- Sessional Instructional Assistant with the Rotman School of Management.
- Consultant, Hans Management, a private company that formed and funded Hanstone Capital Corp., a gold and mineral exploration company in British Columbia.

CORE VALUES

Innovation

- Developing cutting edge products and services to meet and exceed the needs of consumers, the medical profession, and stakeholder groups.

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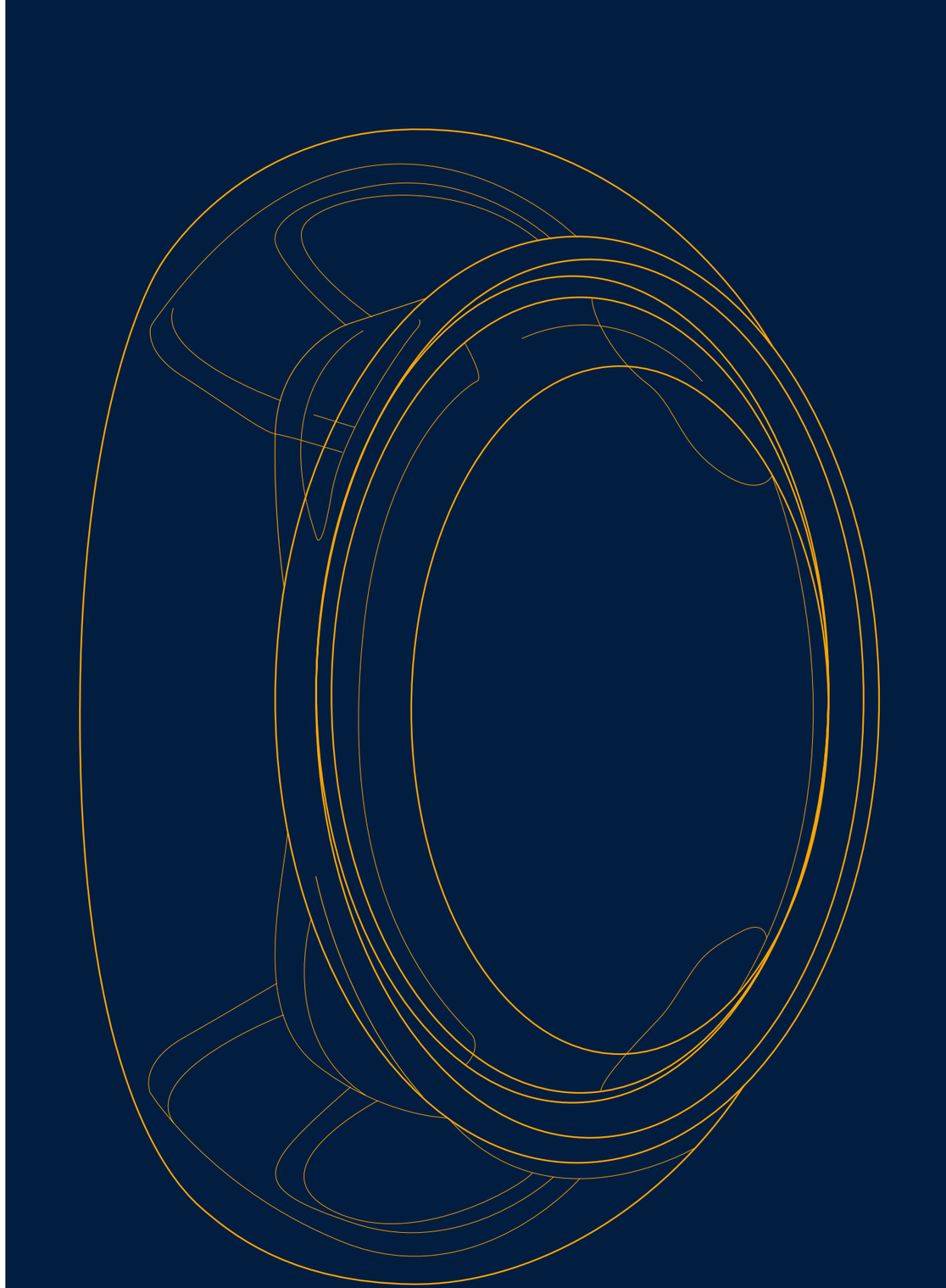
Making a Difference

- Enhancing the quality of life by making the **Bionic Lens™** available and affordable to ordinary people around the world.

ABOUT THE LENS

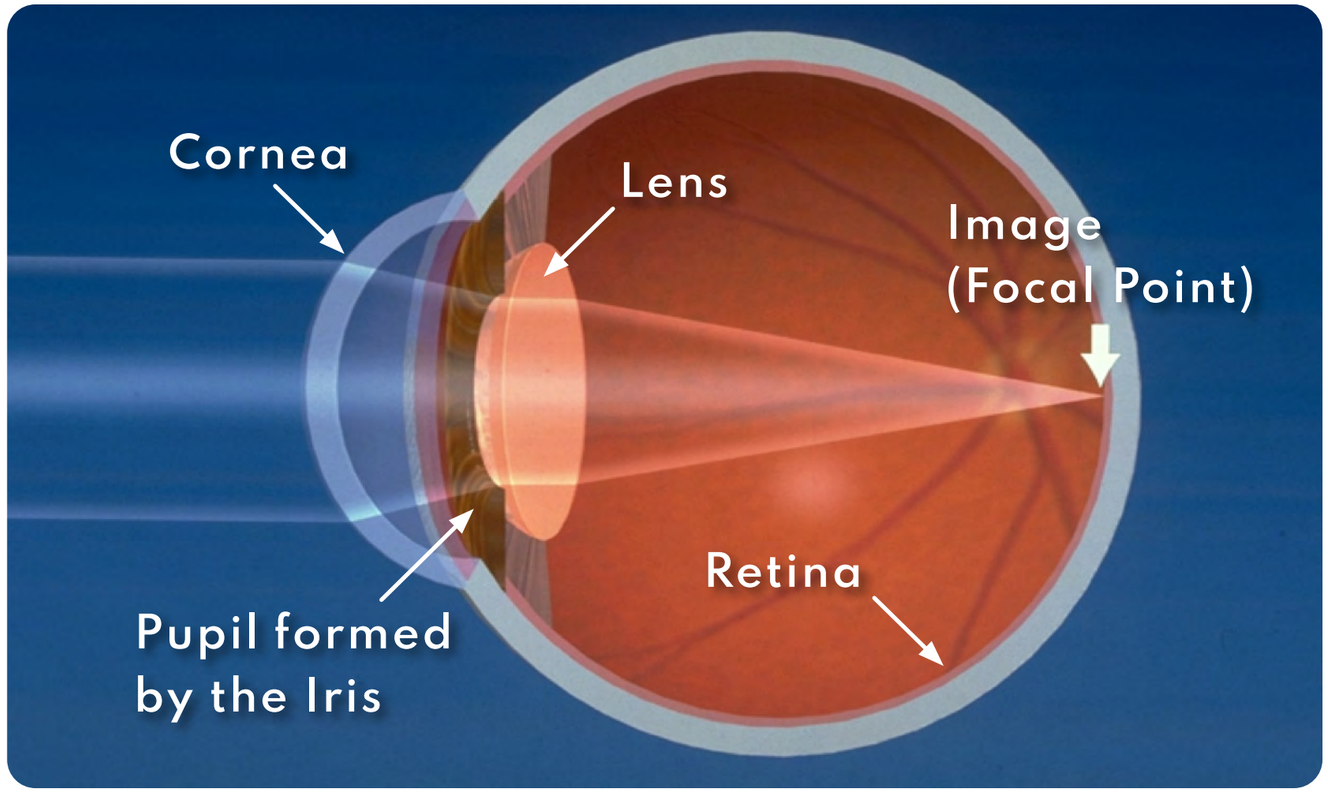
- Bionic Lens™.
- Accommodating intraocular lens (IOL).
- Replaces the natural lens of the eye.
- Produces clear distance and near vision, regardless of age.



Anatomy of the Eye and How it Works.

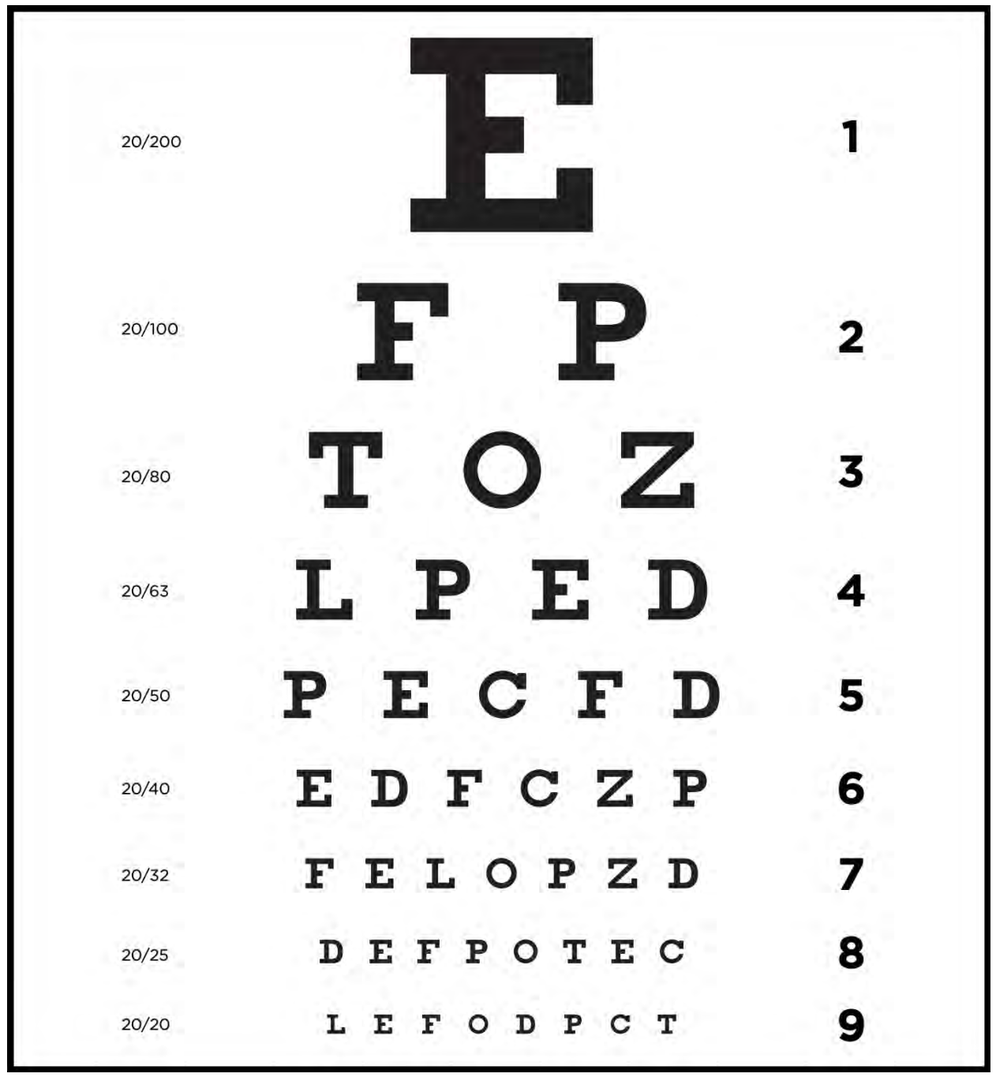
HOW THE EYE WORKS

Light reflected from objects enters the eye through the cornea and the pupil and passes through the lens. The cornea and lens work together to focus light rays on the retina in the back of the eye, like a camera focuses light to form an image on film.



MEASURING VISION

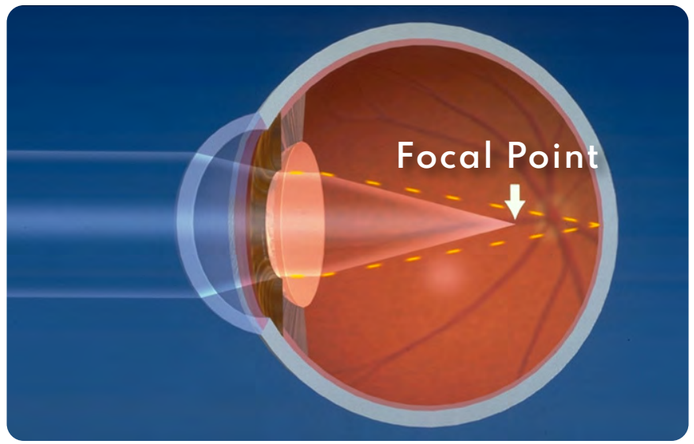
- Expressed as a fraction.
- Measured at 20 feet (numerator).
- 20/100 means you must be 20 feet or closer to see an object that an average person can see at 100 feet.
- 20/20 is average vision.
- 20/15 vision is better than normal vision.



REFRACTIVE ERRORS

MYOPIA
(Nearsightedness)

Light focuses in front of the retina.



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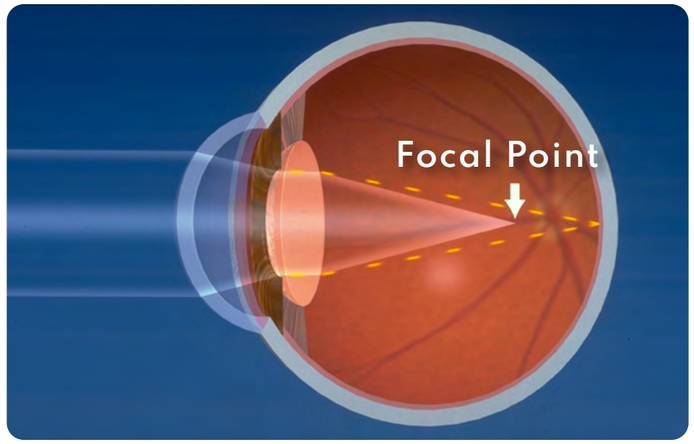
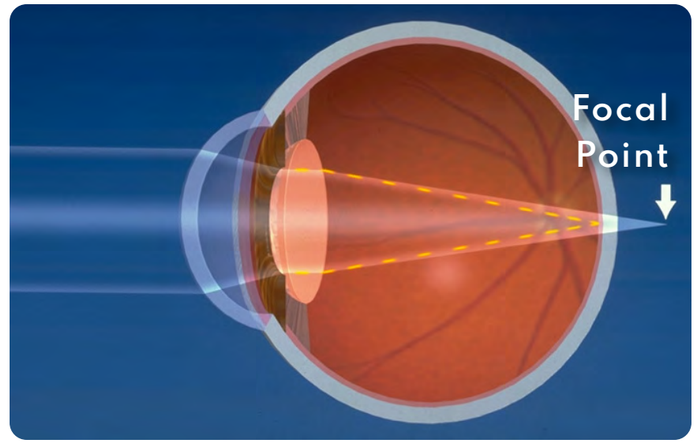


HYPEROPIA
(Farsightedness)

Light focuses behind the retina.



REFRACTIVE ERRORS

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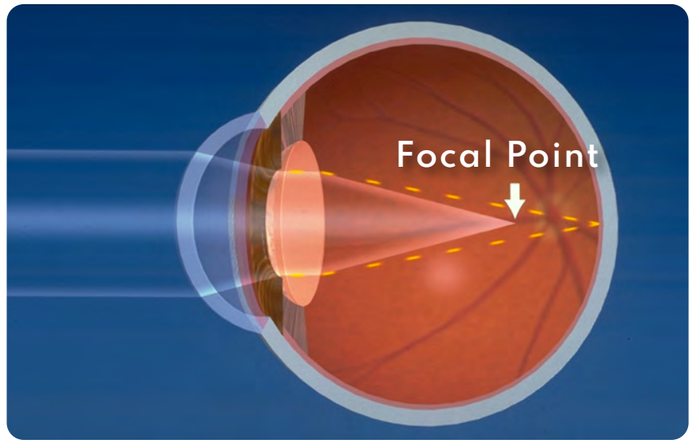

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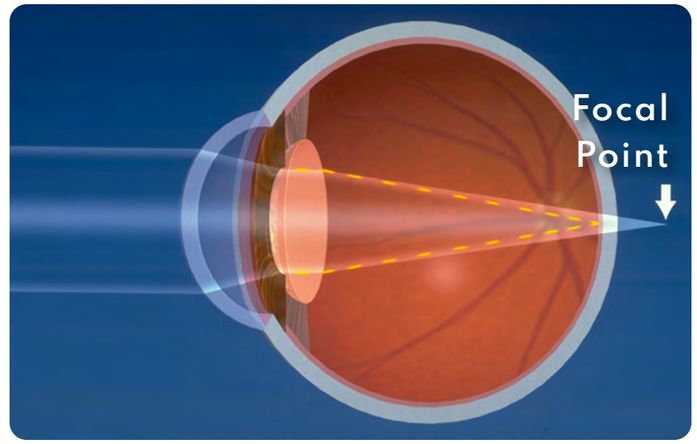
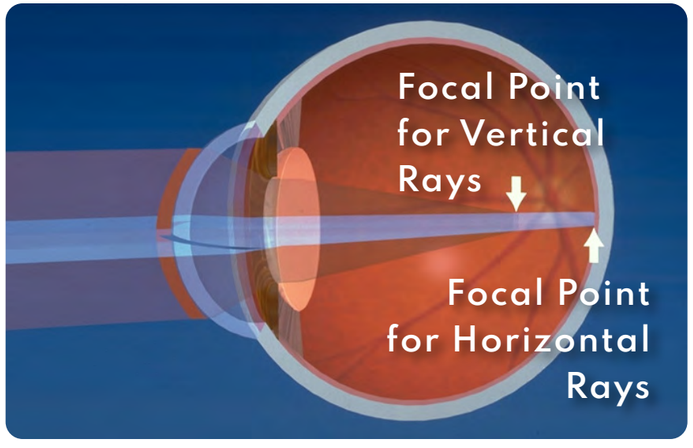
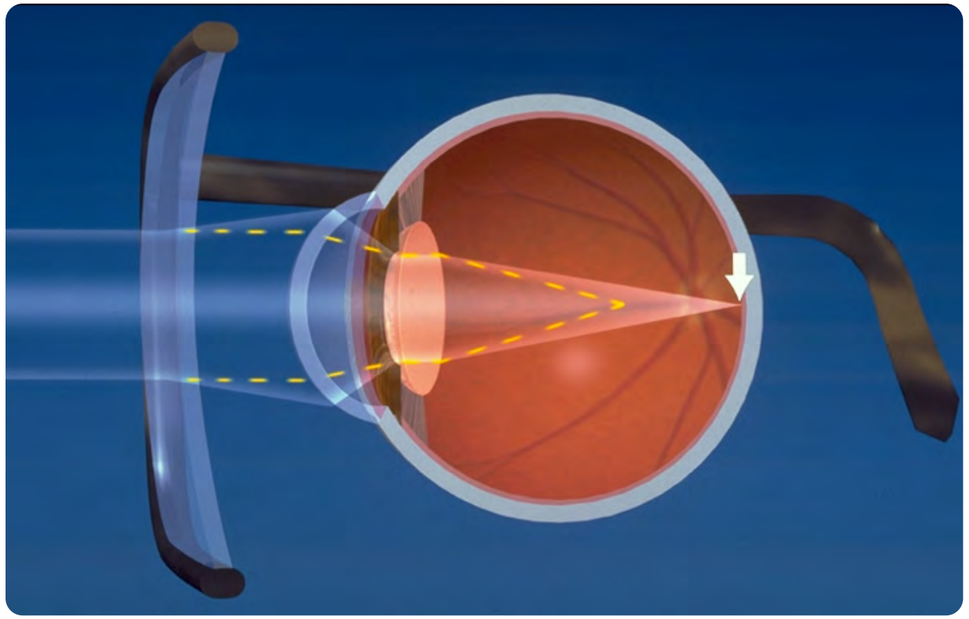


ASTIGMATISM

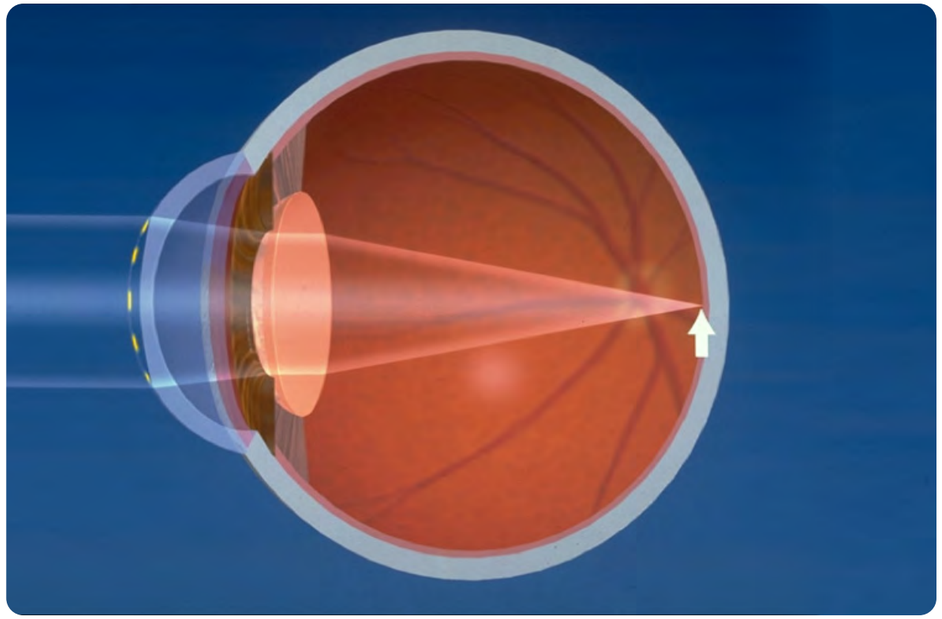
Irregular shape of cornea or lens causes light to focus at two different focal points.



CORRECTION OF REFRACTIVE ERRORS



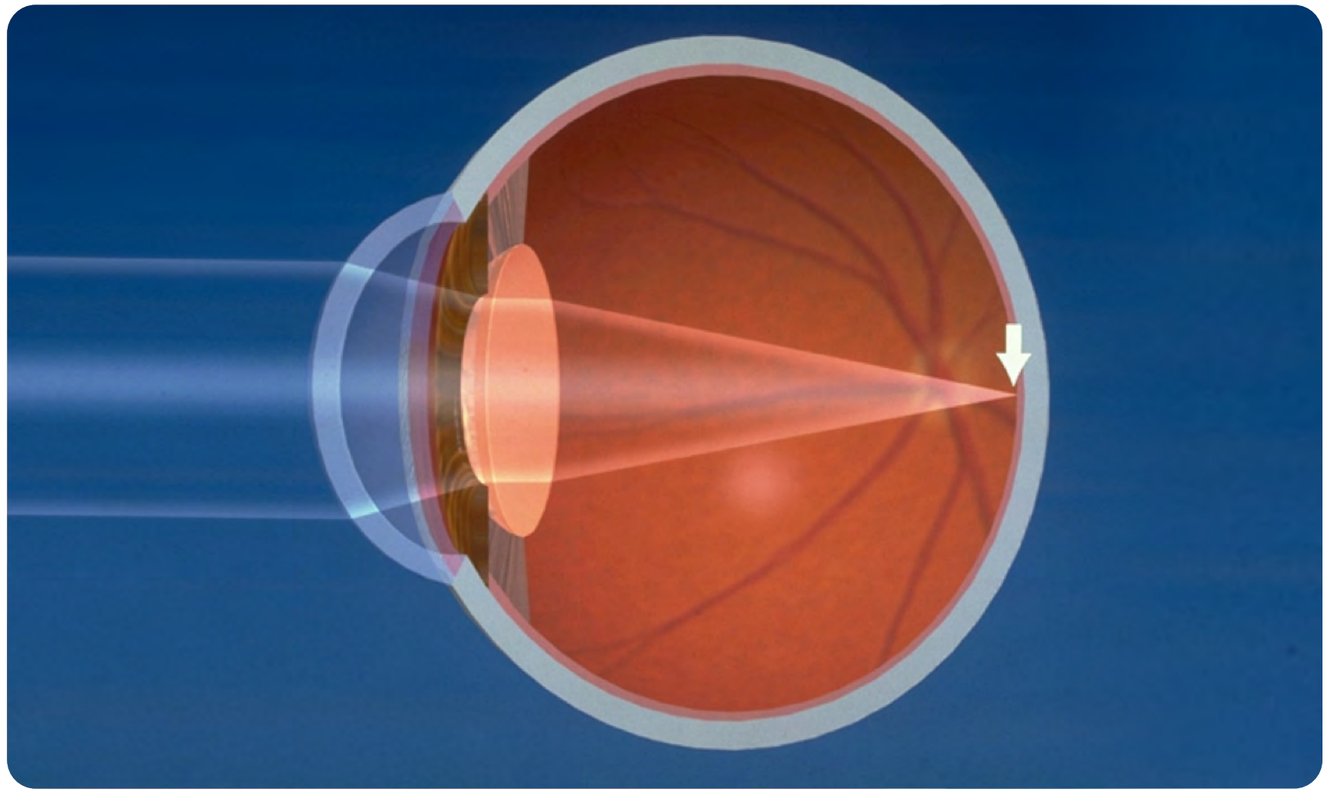
Glasses and contact lenses bend light rays before they reach the eye to focus light rays on the retina and correct the refractive error.



Lasik works by changing the corneal curvature to focus light rays on the retina and correct the refractive error.

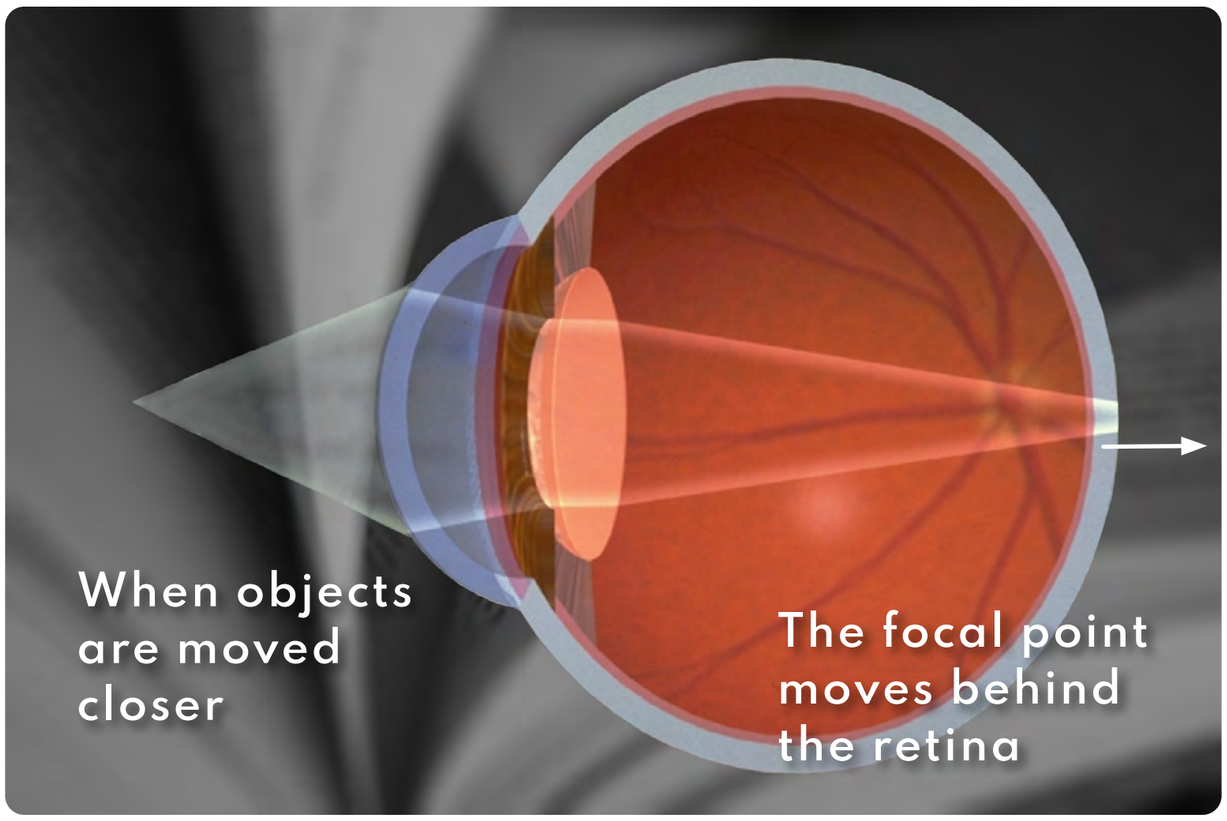
DISTANCE VISION

When there is no refractive error, distant objects are focused on the retina.



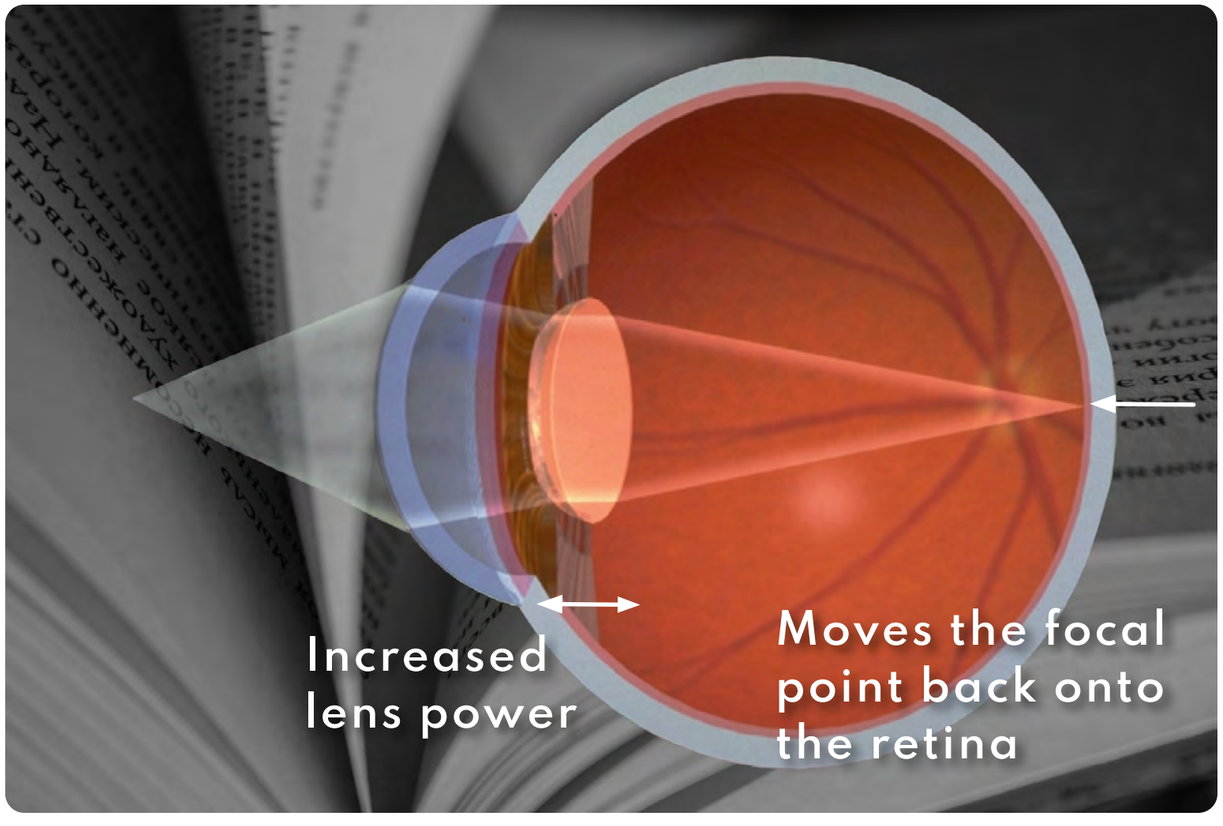
NEAR VISION

When objects are moved close to the eye, the focal point moves behind the retina.



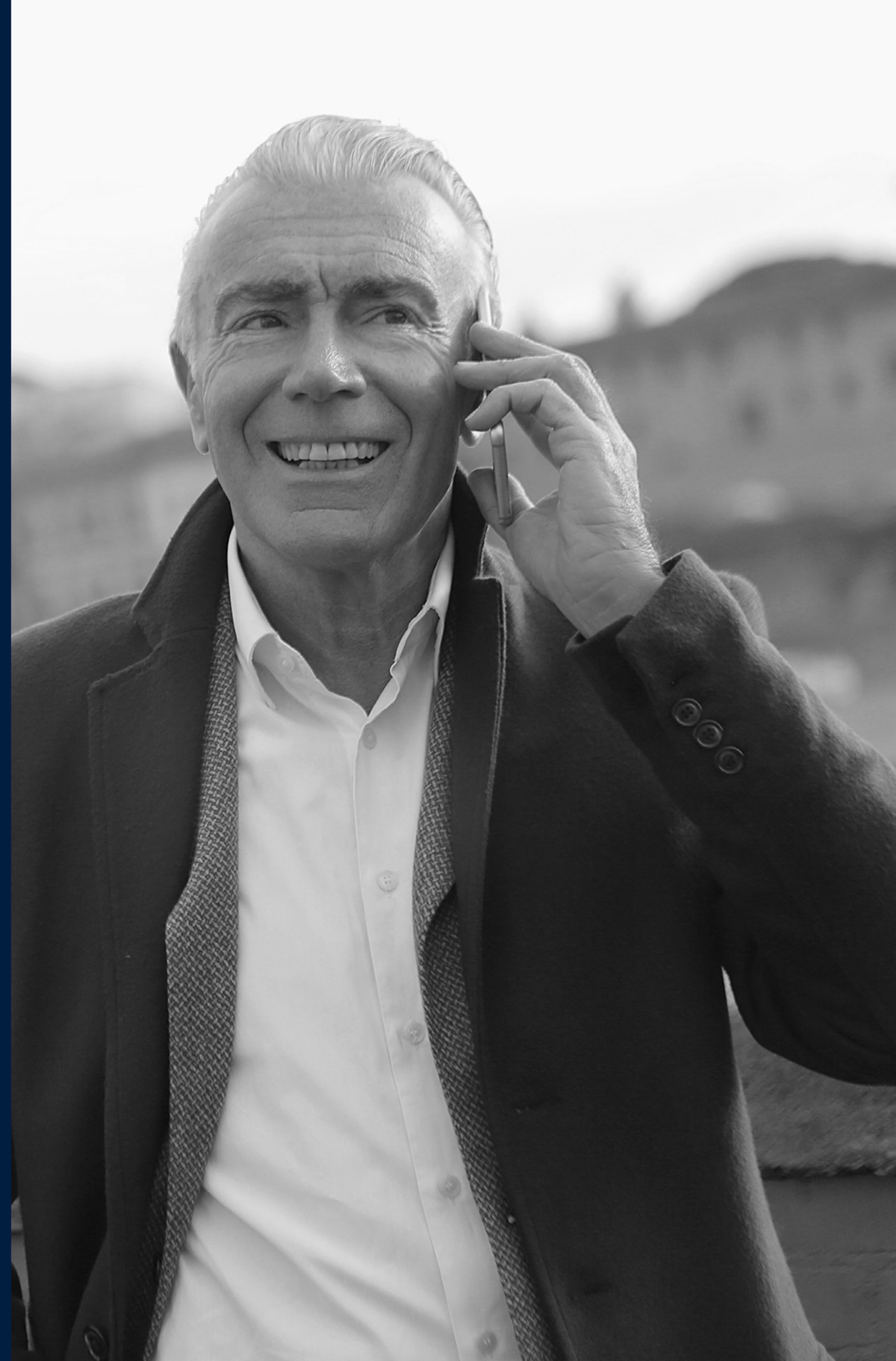
ACCOMMODATION

In the young eye, the lens increases its power to move the focal point for near objects back to the retina.



WHAT HAPPENS WHEN WE AGE?

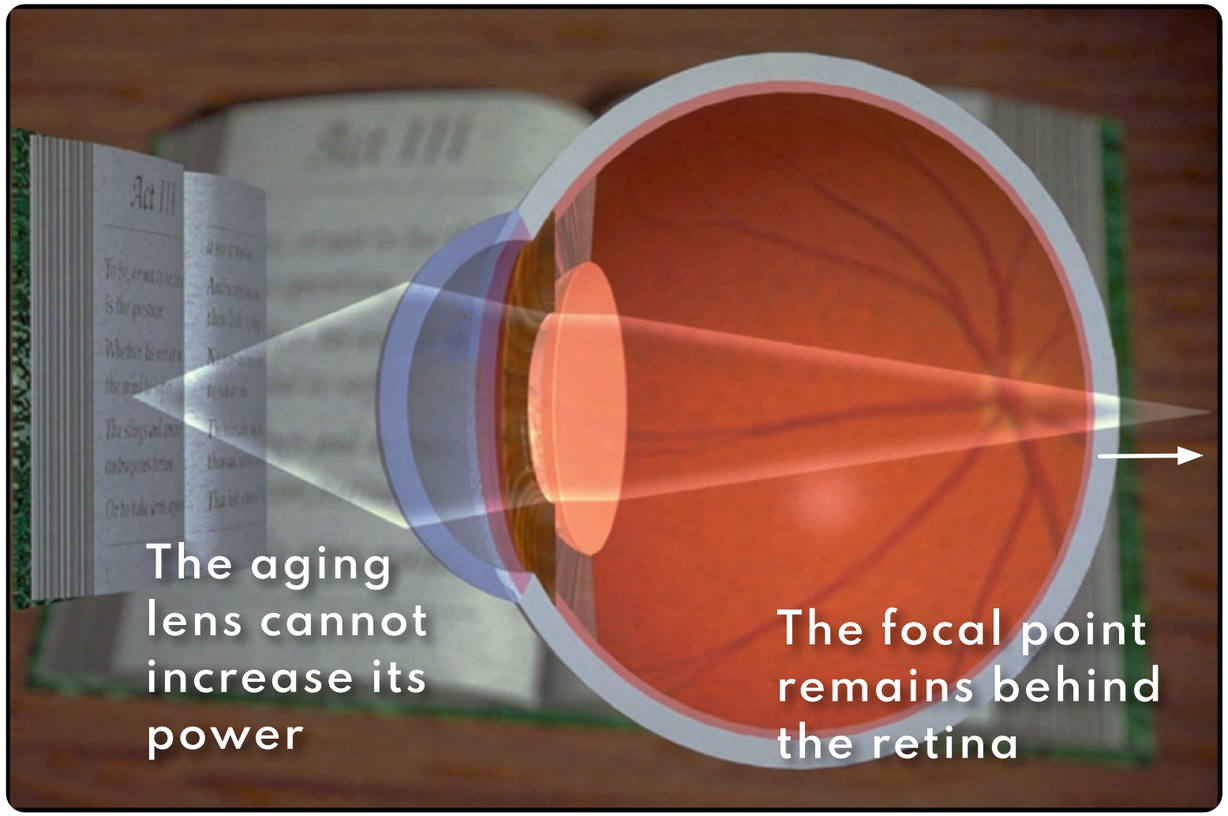
Presbyopia
Cataracts.



PRESBYOPIA

PRESBYOPIA

As people age, the lens becomes stiffer and is no longer able to change shape as easily to focus light rays from near objects on the retina.



TREATMENT FOR PRESBYOPIA

- Bifocal glasses or contact lenses.
- Correct one eye for distance and the other for near (monovision or blended vision).
  - Clear vision with only one eye at a time.
  - The brain chooses the clear image without conscious effort.
  - No correction for most activities.
  - Glasses may be required for visually demanding tasks.

None of these treatments restores the natural ability to see at near without appliances or compromise.

CATARACT

A cataract is a clouding of the normally clear natural lens that results in vision that is blurry, hazy and less colorful.

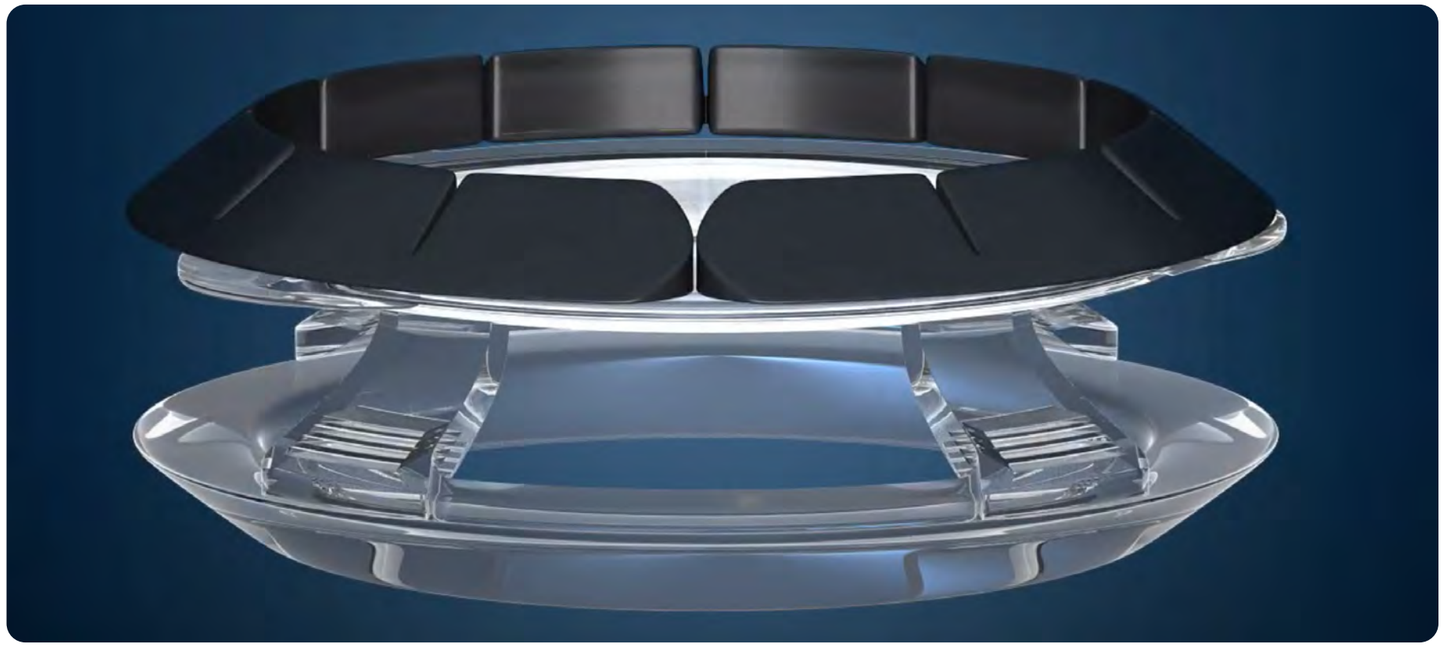
TREATMENT FOR CATARACT

- Removal of the cloudy lens.
- Implantation of a clear, artificial, intraocular lens (IOL).
- Monofocal IOL's focus distant objects
- Multifocal IOL's provide focus at distance and near, BUT,
    - May not produce sharp vision
    - Can cause glare, starbursts, halos, and problems driving at night.

No intraocular lens available today will restore accommodation.

SOLUTION AND OPPORTUNITY

- Removal of the natural lens when presbyopia or cataract develops.
- Implantation of an IOL that restores accommodation.



HOW DOES THE BIONIC LENS™ WORK?

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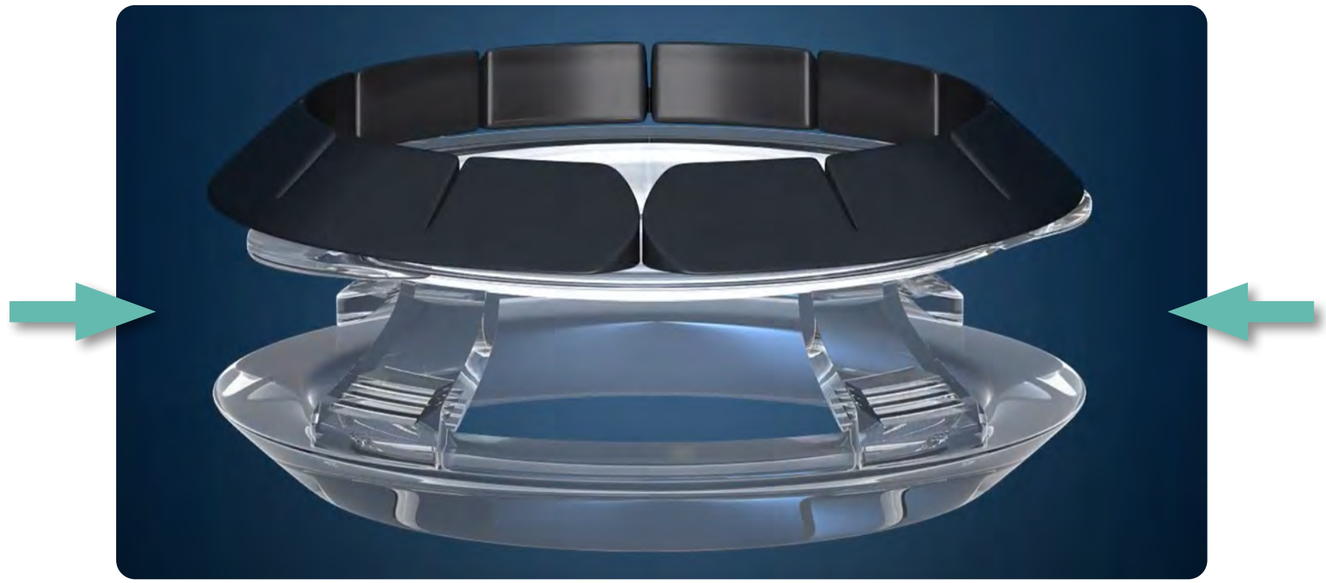
- Which changes its curvature.



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- When the ciliary body of the eye contracts
- Pressure is transmitted to the IOL,
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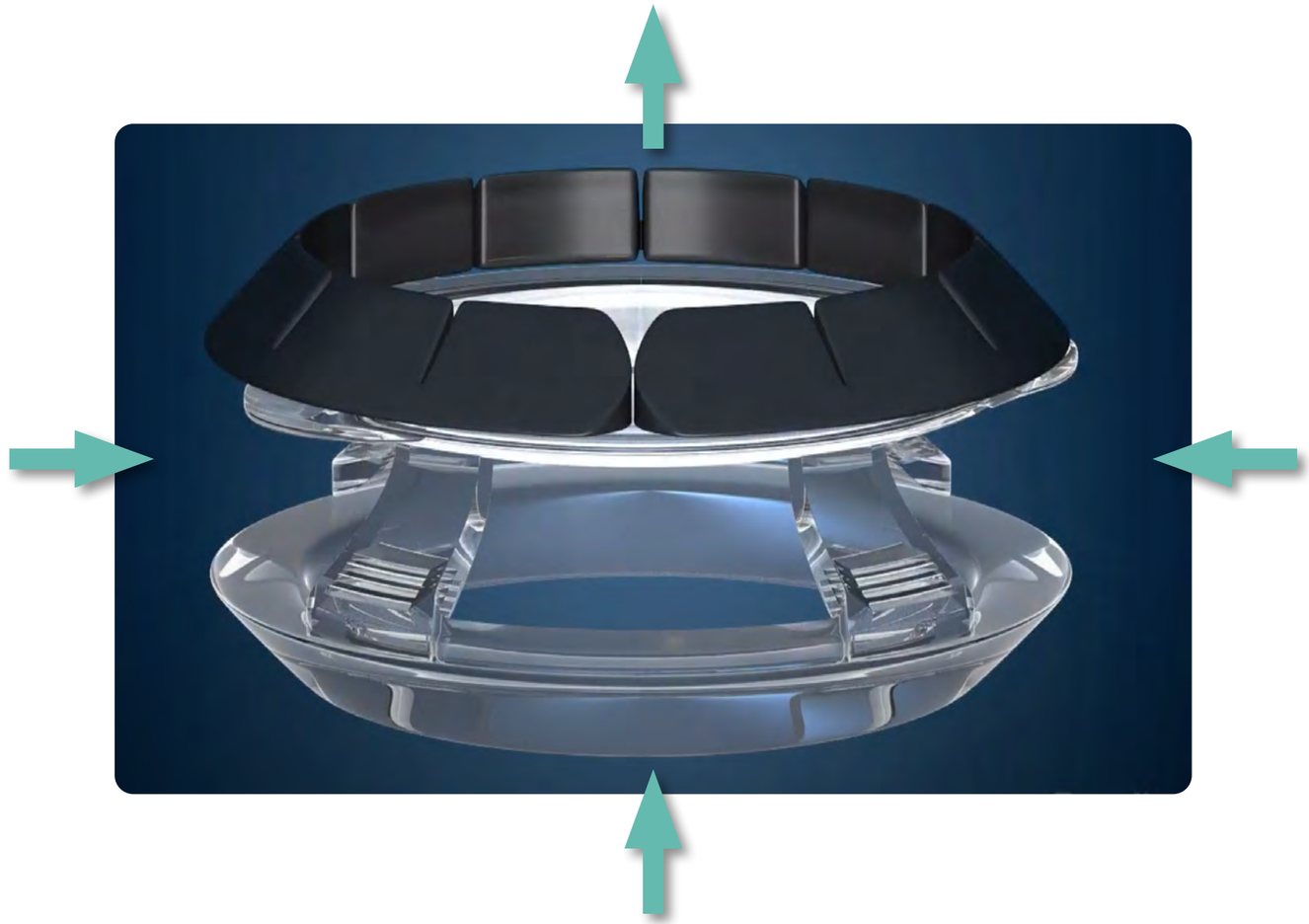
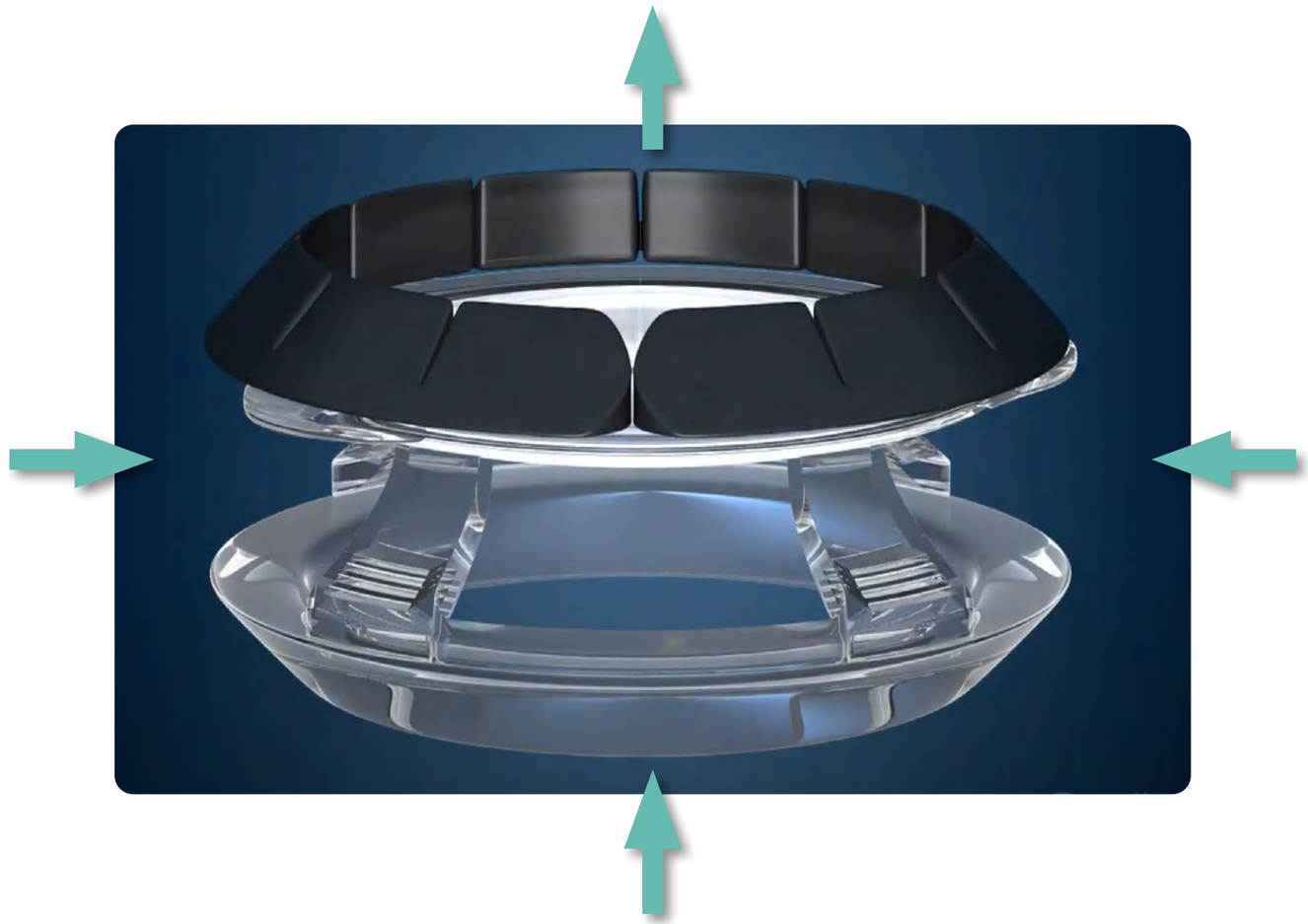
- And increases its power.



HOW DOES THE BIONIC LENS™ WORK?

- When the ciliary body of the eye contracts.
- Pressure is transmitted to the IOL,
- Which changes its curvature.
- And increases its power.
- Focusing light from near objects on the retina.



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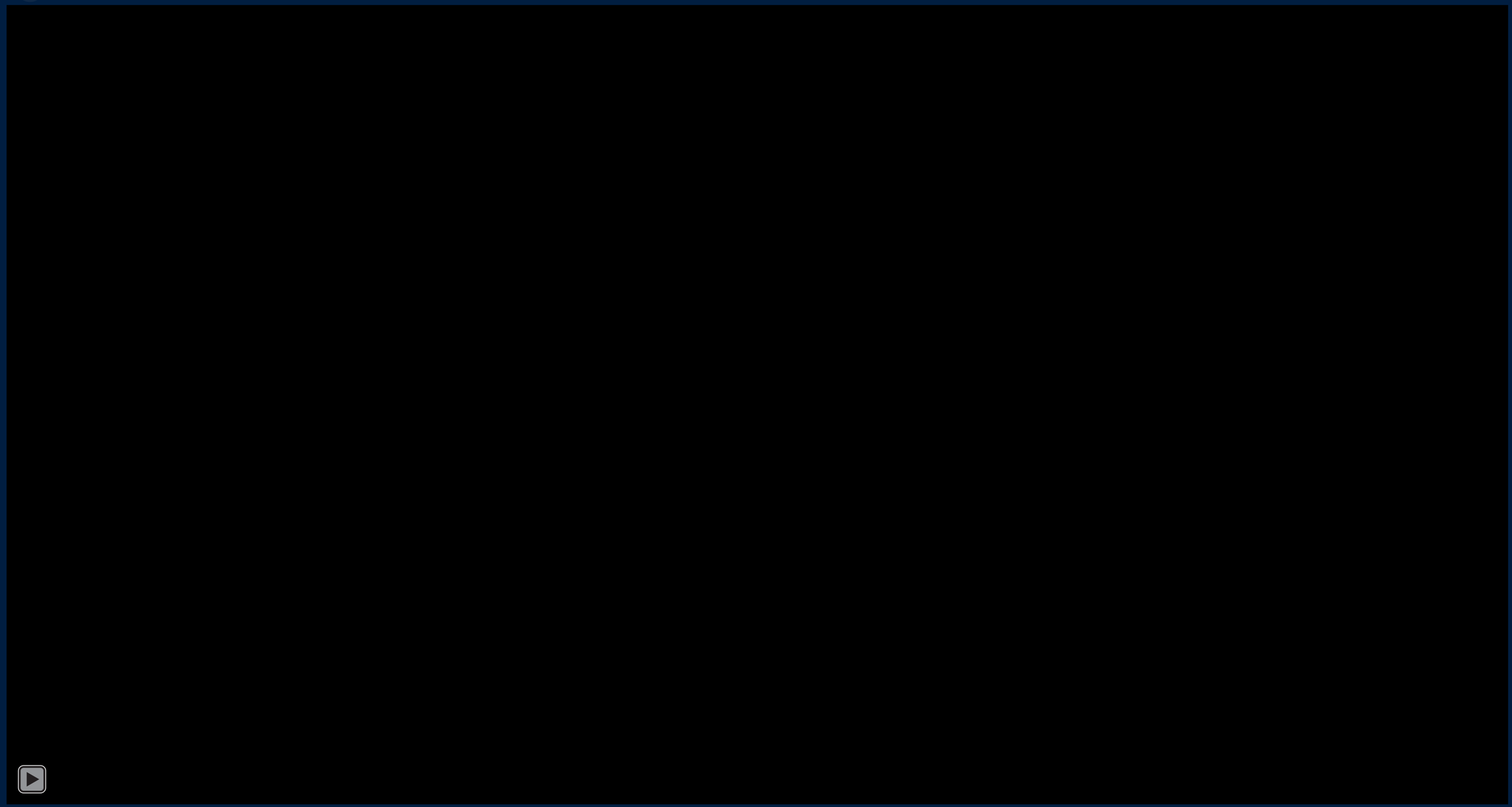


THE SIZE OF THE MARKET

- 100% of people will develop presbyopia by about 45 years of age (138 million in the US).
- 3.6 million people in the U.S. and 20 million people worldwide will need cataract surgery each year.
- All of these people are potential candidates for the Bionic Lens™.

REGULATORY & CLINICAL TRIALS ROADMAP

Proof of Concept Study

US: Cadaver/Animal Studies

Q1 2022

First-in-Human Clinical Trial

Dominican Republic

Q4 2022, 10 Bionic Lens/10 control subjects enrolled

Q2 2023, 3 Mo interim analysis; Q4 2023, 12 Mo analysis

Multi-Center Pivotal Clinical Trial

15 Sites
- 9 sites – U.S.
- 4 sites – Europe
- 3 sites – TBD (Mexico, Singapore, Dominican Republic, Canada?)

300 Evaluable Patients

12 Months Follow-up post implant

Phase 1: Q2 2023 – Q1 2024; 50 Bionic Lens; 50 controls enrolled, 6M interim analysis of 50 subjects

Phase 2: Q2 2024 to Q4 2024 enroll 250 Bionic Lens; 75 controls; Q4 2025 last 12 Month Visit

Q3/4 2025 – Data Cleanup/Final Report

FDA
Pre-Submission
Q2 2022

Dominican Rep
FIH Submission
Q3 2022

FDA
IDE-Submission
Q1 2023

OUS Sites
Int'l Study Submissions
Q2 2023

FDA
IDE-Annual Report/Interim Analysis
Q1 2024

Singapore/Latin America
Q1/Q2 2024 Regulatory Submission

Approval

Q3/Q4 Regulatory

FDA
Pre-PMA Submission
Q1 2025

Europe/ Canada
ISO 13485 Audit
Q1 2025

FDA
PMA-Submission
Q4 2025

CE Mark/ HC License Submission

Q4 2025/Q12026

FDA
PMA Approval
Q2 2026

CE Mark HC License
Q3 2026

Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q4

2022 2023 2024 2025 2026

GO TO MARKET STRATEGY

MANUFACTURING

- Low cost mass production.
- **Phase 1** – Ocumetics will outsource production until volume warrants investment in plant and equipment.
- **Phase 2** – Ocumetics will likely build production facilities in 3 locations:
  - Mexico
  - North America
  - Europe

DISTRIBUTION

North America / Europe

- Direct sales to ophthalmologists managed by Ocumetics.

Rest of World

- Sales managed by distributors, or utilizing the distribution channels of a large life science company.

RETAIL (CLINIC)

- Performs surgical procedure.
- Earns fee per procedure.
- Earns profit on sale of lenses.

COMPETITION

- The global intraocular lens market is projected to reach 4.6 billion USD by the end of 2022 and was expected to grow at a CAGR of 5.4% during the forecast period of 2017-2022.
- The global intraocular lens market is dominated by five major players, which accounted for a global share of about 67% in 2016.
- These are under-estimations, because they include only IOL's implanted at the time of cataract surgery.
- Our potential market will be 100% of those over the age of 45.

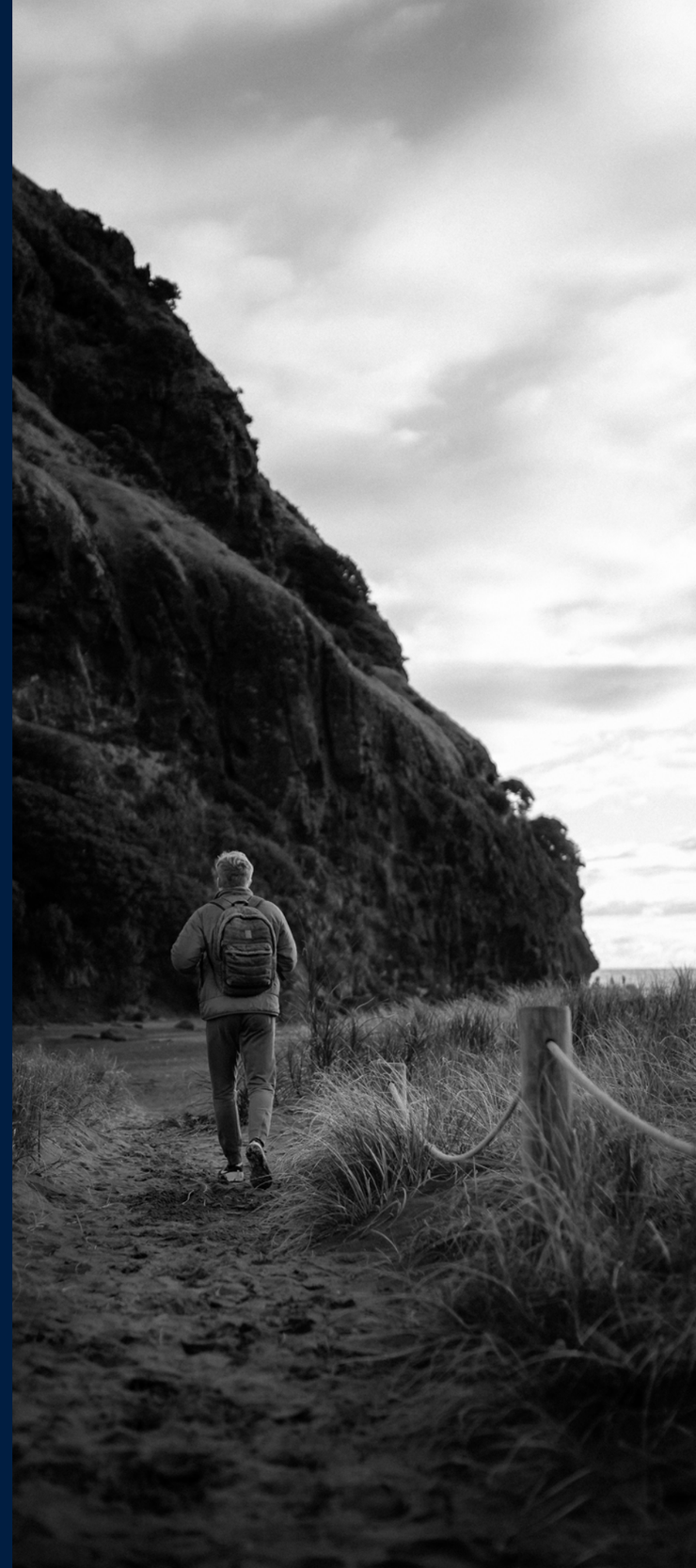
Top 5 Global IOL Companies

- Alcon Vision - US
- Johnson & Johnson Vision Care - US
- Bausch & Lomb - US
- Hoya - Japan
- Carl Zeiss - Germany

Other IOL Companies

- Rayner - UK
- Staar - US
- Ophtec BV - Netherlands
- Lenstec - US
- PhysIOL - Belguim
- SAV IOL - Switerland
- Nidek - Japan
- Aurolab - India
- Omni - India

The Ask.



THE ASK

Ocumetics Technology Corp Pro-forma Budget for Fiscal Years 2022 - 2026

	2022	2023	2024	2025	2026
Investment Funds	$8,500	$10,000	$0	$0	$0
Revenue from Bionic Lens	$0	$0	$20,000	$100,000	$500,000
Total Cash Inflow	$8,500	$10,000	$20,000	$100,000	$500,000
Less Returns & Allowances	$0	$0	$600	$3,000	$15,000
Net Cash Inflow	**$8,500**	**$10,000**	**$19,400**	**$97,000**	**$485,000**
Cost of Goods Sold					
Variable COGS	$0	$0	$2,000	$10,000	$50,000
Fixed COGS	$0	$0	$4,000	$20,000	$100,000
Total Cost of Goods Sold	$0	$0	$6,000	$30,000	$150,000
Gross Profits	**$8,500**	**$10,000**	**$13,400**	**$67,000**	**$335,000**
Expenses					
Patent Renewals	$200	$200	$500	$1,000	$2,000
Research & Development	$200	$200	$500	$1,000	$2,000
General & Administrative	$950	$1,840	$3,000	$4,500	$10,000
Sales & Marketing	$50	$160	$1,000	$2,000	$20,000
Clinical Trials & Regulatory	$893	$6,623	$3,000	$3,000	$3,000
Building & Equipment	$0	$0	$1,000	$3,000	$15,000
Total Expenses	**$2,293**	**$9,183**	**$9,000**	**$36,500**	**$79,000**
Net Cash Flow	**$6,208**	**$817**	**$4,400**	**$30,500**	**$256,000**

THE ASK

Fund Raising Milestones

Date	Amount	Purpose
June 2022	$3,500,000	Proof of Concept
December 2022	$5,000,000	Human Studies
June 2023	$5,000,000	Proof of Concept
December 2023	$5,000,000	Regulatory Approval & Early Commercialization

CAPITALIZATION TABLE NOV 2021

Common Shares Outstanding	108,513,302
Options	8,995,800
Warrants	2,134,248
Total Shares, fully diluted	119,643,350

NOTES

- Common Shares trade on TSX Venture Exchange (Ticker “OTC”).
- Completed RTO transaction Q3 2021.
- Raised $2.7M (August 2021).

CONTACT US

For further information, please contact:

DR. MARK LEE, CEO at: mark.lee@ocumetics.com

ROGER JEWETT, CFO at: roger.jewett@ocumetics.com

DAYTON MARKS, COMPANY DIRECTOR at: dayton.marks@ocumetics.com

ocumetics

www.ocumetics.com

Appendices.

DEVELOPMENT STAGE 1: IN VIVO CADAVER EYE/ANIMAL EYE TESTING

Study	Cadaver Eye Study 1	Cadaver Eye Study 2	Rabbit Eye Study 3
Study Type	Proof of Concept	Proof of Concept	Proof of Concept
Test Product	Bionic Lens System Retainer + prototype IOL	Bionic Lens system Retainer + prototype IOL	Bionic Lens Retainer + optically clear IOL
Test Facility	Intermountain Ocular Research Center University of Utah	Intermountain Ocular Research Center University of Utah	Intermountain Ocular Research Center University of Utah
Objective	• Evaluate insertion technique. • Evaluate geometric fit.	• Evaluate insertion technique. • Evaluate geometric fit.	• Evaluate insertion technique. • Evaluate geometric fit. • Evaluate biocompatibility. • Evaluate capsular bag opacification.
Sample Size	4 cadaver eyes	4 cadaver eyes	5 rabbits (Implanted eye compared to untreated control eye)
Study Design	Miyake eye study	Miyake eye study	6 month implant study

Outcome Measures	• Video documentation of insertion procedures.
	• Investigator perceptions of surgical difficulty.
	• Standardization of surgical technique.
	• CONCLUSION: Resulted in additional design changes.
		• Video documentation of insertion procedures.
		• Investigator perceptions of surgical difficulty.
		• Standardization of surgical technique.
			• Capsular stability.
			• Incidence and characteristics of:
			  • Anterior capsular opacification
			  • Posterior capsular opacification
			  • Capsular fibrosis
			• Corneal edema.
			• Inflammation, as measured by presence and severity grade of anterior chamber cell and flare.

Status	Complete	Start Date: 02/25/2022	Start Date: 03/25/2022

DEVELOPMENT STAGE 2: CLINICAL TESTING
First-in-Human/Pilot Study (1 to 2 Sites - Dominican Republic)

Study	First-in-Human (Phase 1)
Indication Supported	The Bionic Lens™ accommodating IOL is intended for primary implantation in the capsular bag of the eye for the visual correction of aphakia in adult patients in whom a cataractous lens has been removed and is intended to provide near, intermediate, and distance vision without spectacles. The Bionic Lens™ provides at least 1 diopter or more of accommodation.
Study Design	Prospective, single center, randomized study of the Bionic Lens™ compared to a monofocal IOL in patients undergoing cataract extraction with IOL placement.
Test Products	**Investigational Device**: Bionic Lens **Control Device**: Monofocal IOL (TBD)
Study Objective	The primary objective of this study is to evaluate the safety and efficacy of the Bionic Lens™ for the visual correction of aphakia and the ability to provide near, intermediate and distance vision in patients.
Study Duration	**12 Months**: Screening; Operative Day; Postoperative 1 Day, 1 Week, 1, 3, 6, 9, 12 months. **Optional Visits Up to 36 Months**: 15, 18, 21, 24, 27, 30, 33 and 36 months. If accommodative stability achieved between 6 and 12 months is achieved, omit all optional visits. If accommodative stability is not achieved at 12 months, continue optional visits every 3 months until accommodative stability is demonstrated.
Sample Size Phased Enrollment	**Phase 1**: (Randomized) • 10 subjects Bionic Lens™. • 10 monofocal IOL control subjects. • Interim analysis: 3 Month follow-up all subjects for safety, preliminary efficacy before proceeding to pivotal study Phase 1 enrollment.
Outcome Measures	**Efficacy**: Near, intermediate and distance visual acuity without correction; accommodative amplitude **Safety**: Adverse event rates
Target Dates	**Phase 1**: • First Enrolled: Q4 2022 • Last Enrolled Q4 2022 or Q1 2023 • Interim Analysis End Q1 2023/Early Q2 2023 (3 Month; safety, preliminary efficacy) • Last Visit Completed Q1 2024 (Final Report)
Investigative Sites	• Dominican Republic

DEVELOPMENT STAGE 3: CLINICAL TESTING
Pivotal Study (US + International Sites)

Study Phase	Pivotal Study
Indication Supported	The Bionic Lens™ accommodating IOL is intended for primary implantation in the capsular bag of the eye for the visual correction of aphakia in adult patients in whom a cataractous lens has been removed and is intended to provide near, intermediate, and distance vision without spectacles. The Bionic Lens™ provides at least 1 diopter or more of accommodation.
Study Design	Prospective, multi-center, randomized study of the Bionic Lens™ compared to a monofocal IOL in patients undergoing cataract extraction with IOL placement.
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Study Objective	The primary objective of this study is to evaluate the safety and efficacy of the Bionic Lens™ for the visual correction of aphakia and the ability to provide near, intermediate and distance vision in patients.
Study Duration	**12 Months**: Screening; Operative Day; Postoperative 1 Day, 1 Week, 1, 3, 6, 9, 12 months. **Optional Visits Up to 36 Months**: 15, 18, 21, 24, 27, 30, 33 and 36 months only if needed to achieve accommodative stability If accommodative stability achieved between 6 and 12 months is achieved, omit all optional visits. If accommodative stability is not achieved at 12 months, continue optional visits every 3 months until accommodative stability is demonstrated.
Sample Size Phased Enrollment	**Phase 1**: (Randomized) • 50 subjects Bionic Lens™ + 50 monofocal IOL control subjects. • Interim analysis: All 100 subjects followed through at least 6 M visit, demonstrate mean accommodative amplitude of at least 1.0 D to proceed to Phase 2 enrollment. **Phase 2**: (Randomized) • 250 subjects Bionic Lens™ + 72 monofocal IOL control subjects (Total Phase 1 + Phase 2 = 300 evaluable Bionic Lens™ + 122 evaluable control subjects; increase total enrollment by ~10% to allow for dropouts = 340 Bionic Lens™ + 135 controls). • Interim analysis: 12 Month follow-up all subjects for safety, accommodative amplitude, accommodative stability (<25% decrease in objective accommodative amplitude from 6 to 12 months); If accommodative stability not achieved by 12 months, additional visits every 3 months thereafter until accommodative stability over a 6-month interval is demonstrated.
Outcome Measures	**Efficacy**: Near, intermediate and distance visual acuity without correction; accommodative amplitude; accommodative stability. **Safety**: Adverse event rates.
Target Dates	**Phase 1**: • First/Last Enrolled: Q2 2023 • Interim Analysis Q1 2024 (6 months, accommodative amplitude ≥1.0 D) **Phase 2**: • First/Last Enrolled: Q2 2024/Q4 2024 • Last Visit Completed Q4 2025 • Final Report Q4 2025 • FDA Submission End of Q4 2025)
Investigative Sites	• Up to 15-17 sites • US (9 sites); Europe (4 sites); Other international (3 sites, location TBD; i.e. Mexico, Dominican Republic, Singapore, or Canada)

PARTNERS

Bioana	Tooling design and manufacturer Prototyple lens design and manufacturer
Ocular Technology Inc.	Prototype lens design and manufacture
The University of Utah	Animal Studies
Tingle Merrett LLP	Corporate and Securities Law
Oyen Wiggs Green & Mutala LLP	Intellectual property lawyers/patent agent
Manning Elliot	Audit and Accounting
NUSIL Avantar	Supplier of the silicon in fabricating the Bionic Lens™

THE BIONIC LENS™ PATENTS

REGISTRATIONS

- Filed with The World International Patent Office (WIPO).
- Application for the Inflatable Lens/Lens Retainer registered on Aug 13, 2007.
- Two supplemental submissions registered on Nov 5, 2007 and May 7, 2008.
- Patent applications were examined for Novelty, Inventive Step and Industrial Applicability.
- Patent claims 1-56 were accepted as valid in all categories.
- The Inventive Step cited revolves around the process of inflating a lens retainer to apply pressure upon the posterior lens capsule of the eye to focus upon distant objects.
- This process is essential for bio-mimetic intraocular lens function and is the missing element of all contemporary accommodating lens designs.
- New patent applications disclosing improvements to this original concept have been registered internationally.

UPDATES

- Ocumetics also owns the registered word marks “Bionic Lens” and “Ocumetics”.

JURISDICTIONS

- USA, Canada, Austria, Denmark, Finland, France, Switzerland.
- Germany, UK, Greece, Italy, Portugal, Spain, Sweden, Dominican Republic.
- China, Mexico, Australia, New Zealand, Japan, India, Republic of Korea, Brazil, Peru, Singapore, South Africa, Russian Federation, Thailand, Indonesia, Malaysia, Philippines.

OWNERSHIP (Ocumetics Technology Corp)

- All patent filings.
- Wordmarks “Bionic Lens™” and “Ocumetics”.