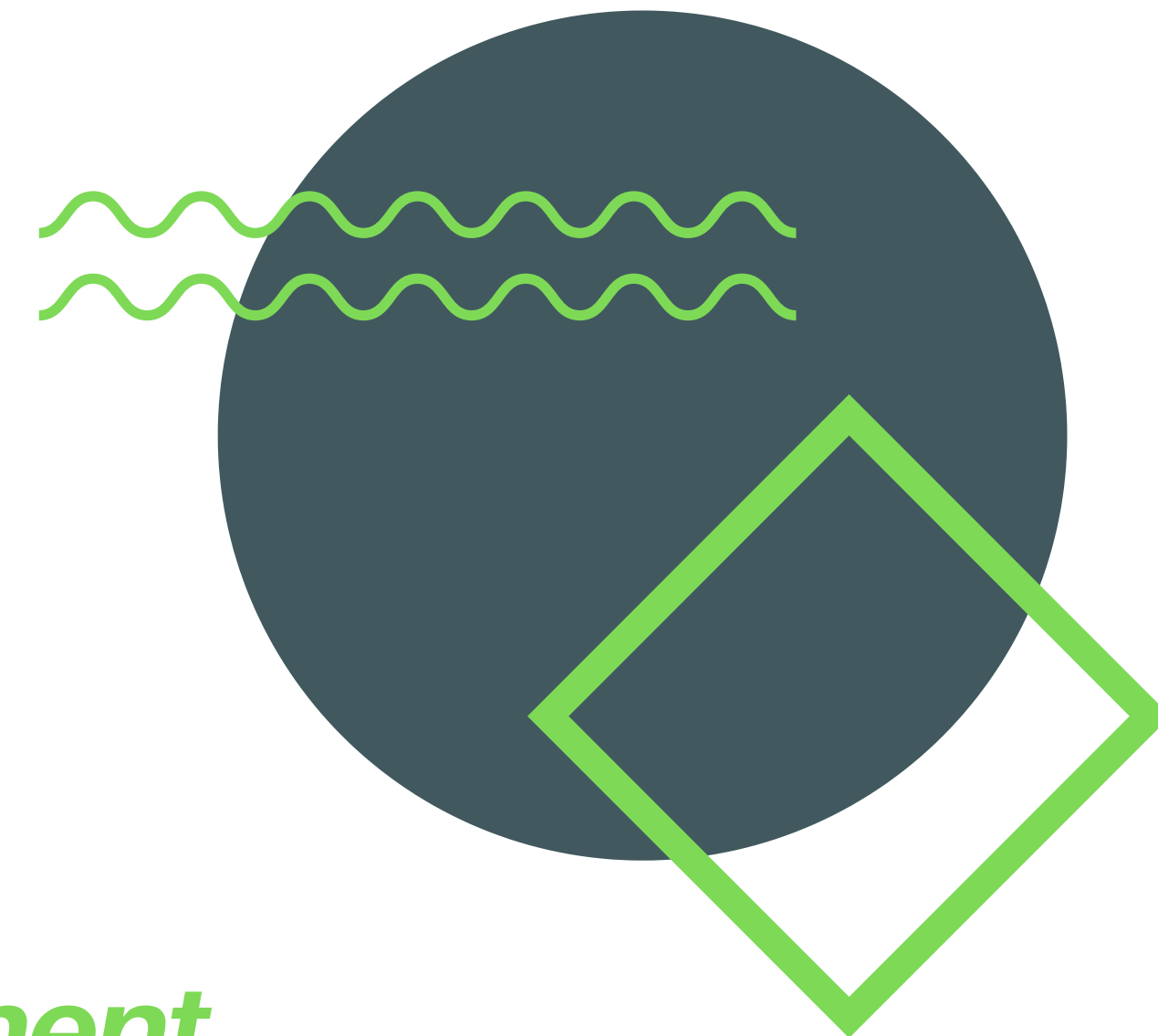
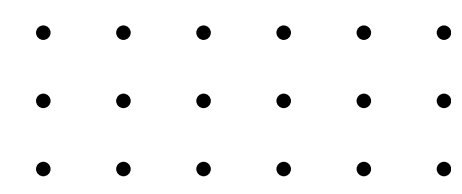




IVECS Limited

Transforming ocular surface treatment



Illuminating Visionary Eye Care Solutions

IVECS Limited focuses on advancing eye health through innovative ophthalmic and biomedical technologies. One of our core focuses is the development of a revolutionary biomaterial for the treatment and management of various ocular surface diseases. At IVECS, we are committed to advancing healthcare and driving innovation that positively impacts our communities. Our core mission is to illuminate visionary eye care solutions to improve patient outcomes and foster a healthier future.

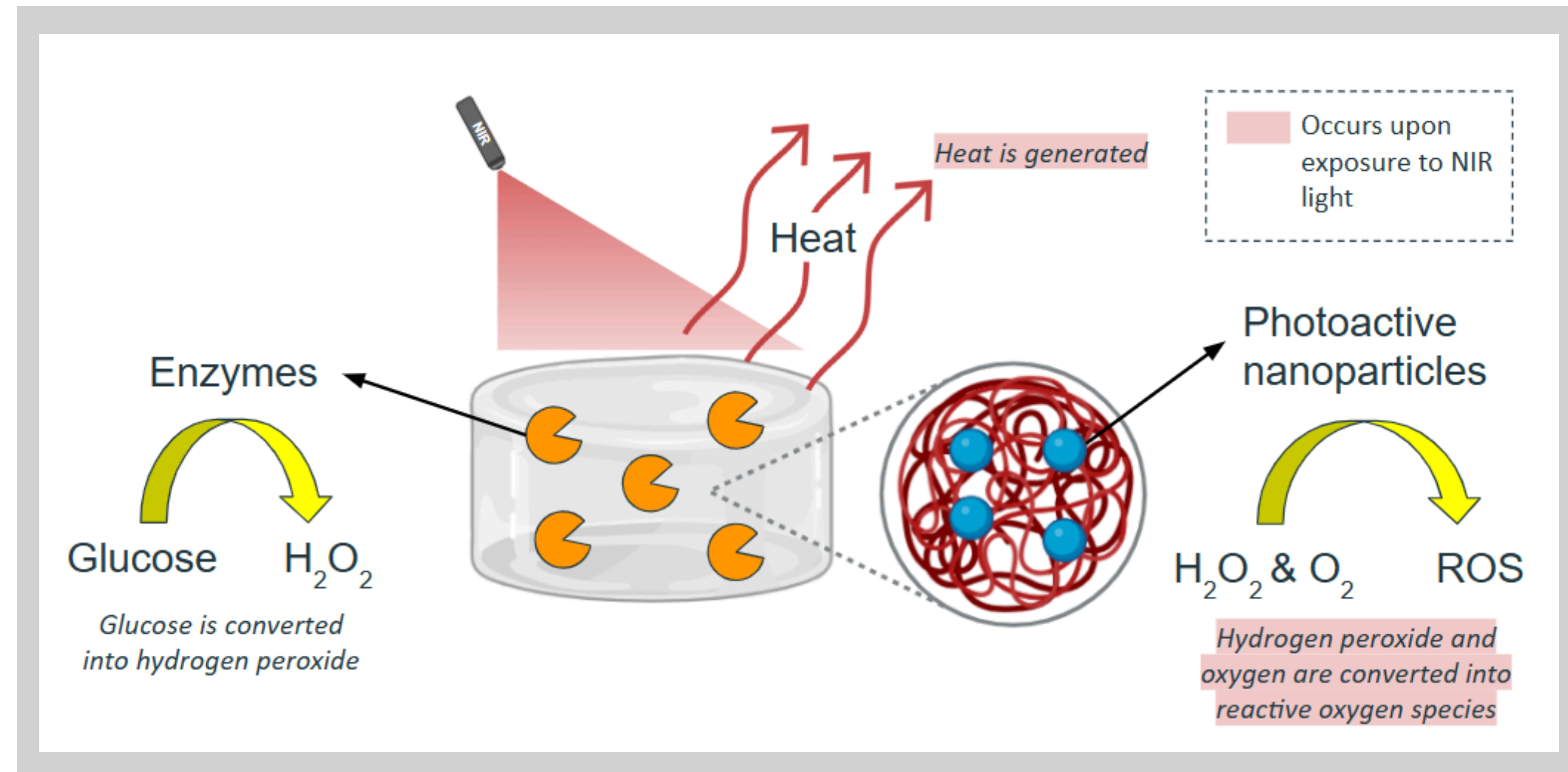
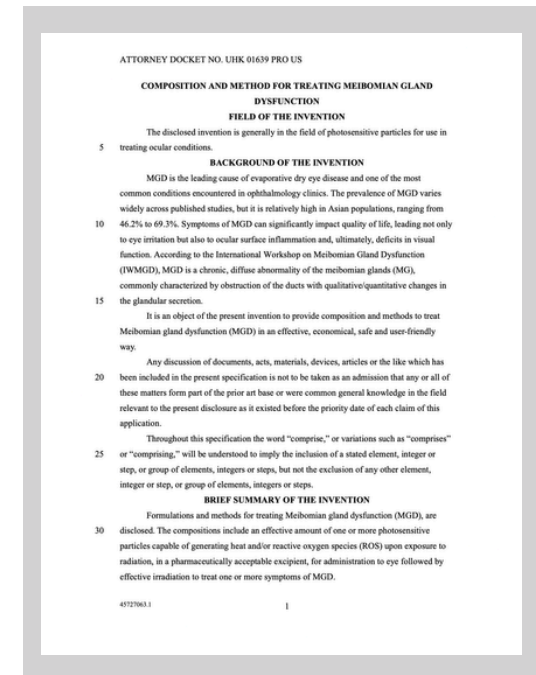




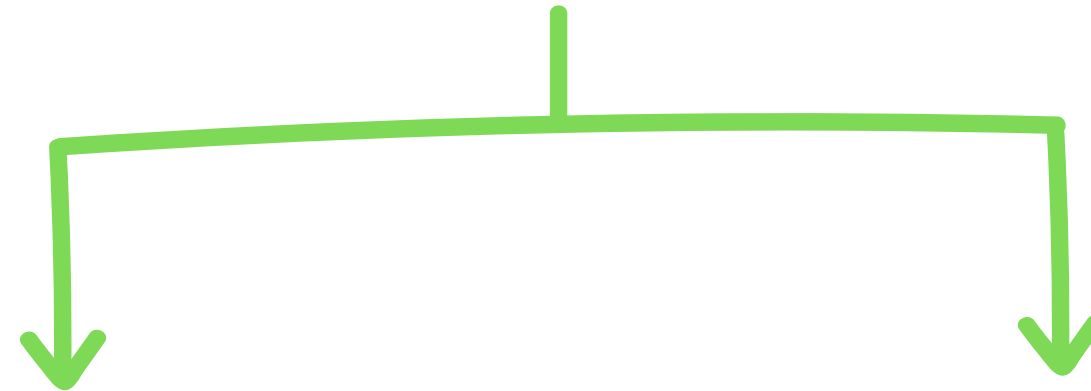
Novel Light-Activated Biomaterial

Our revolutionary biomaterial was developed by researchers from the University of Hong Kong's Department of Ophthalmology and the Advanced Biomedical Instrumentation Centre, an research and development centre part of the Hong Kong government's innoHK programme. This biomaterial is activated by a low intensity near infrared light, allowing it to generate heat and ROS in a controlled manner.

US63/790,848 (US
provisional patent filed on
18 April 2025)



Product Pipelines



Wellness Product

- Eyelid patch for relief of Meibomian Gland Dysfunction (MGD)

Disease Treatment

- Contact lens for microbial keratitis
- Ocular surface bandage for pterygium and melanoma

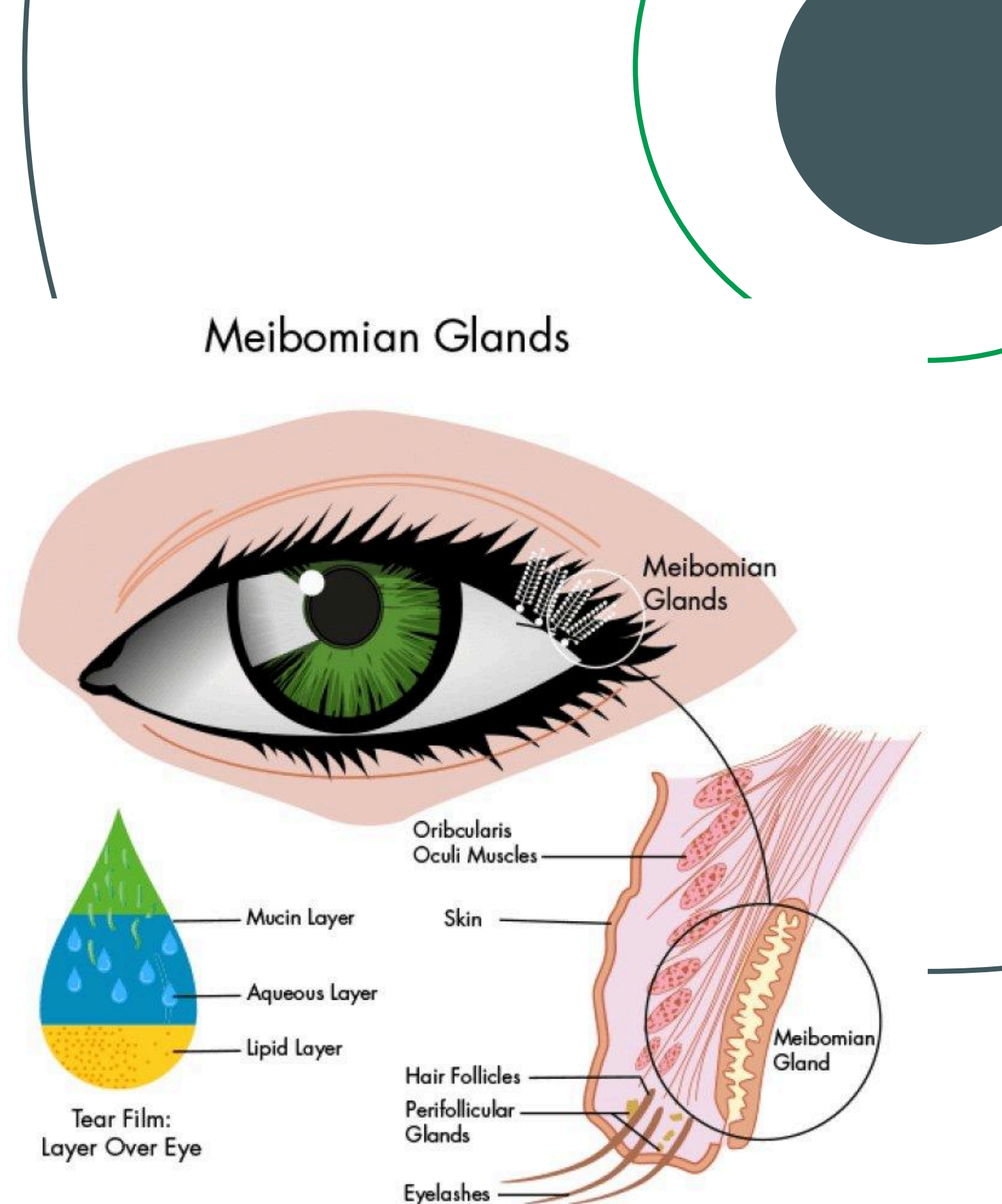


Meibomian Gland Dysfunction (MGD)

What is it?

A condition where the oils in meibomian glands (the oil producing glands under the eyelid) solidify, blocking the glands and preventing the oils from flowing out. The oils play a crucial role in lubricating the eyeball and forming the oily layer on the surface of the tear film which prevents tears from evaporating too quickly. It also plays an important role in maintaining ocular surface health by preventing microabrasions and infections.

When MGD occurs, this protective lipid layer is compromised, causing tears to evaporate too quickly. This causes inflammation, discomfort, and ultimately, damage to the cornea and conjunctiva, leading to various diseases such as dry eye disease, styes and blepharitis.

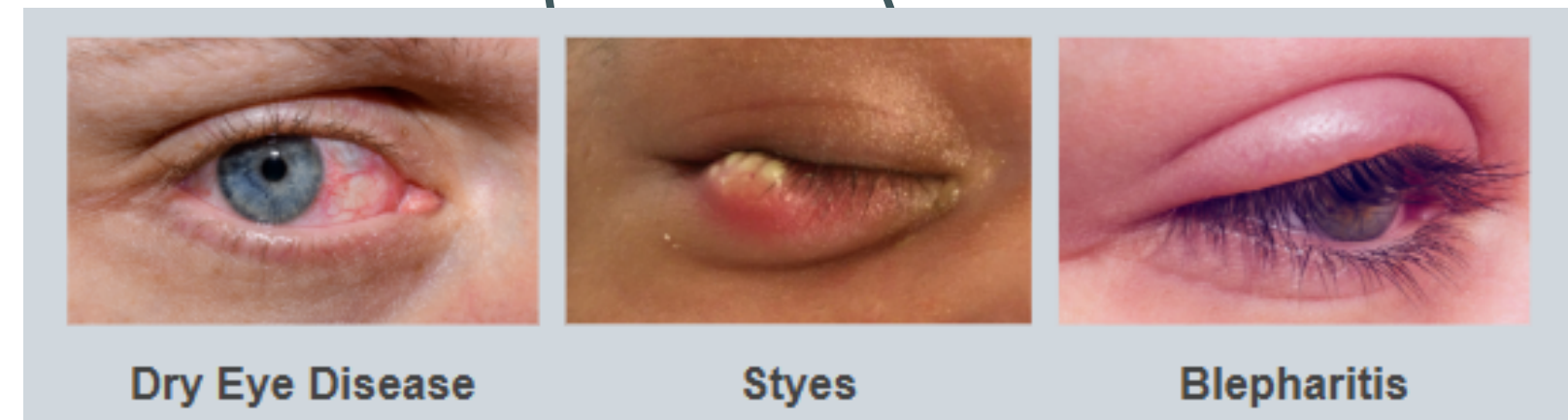




Increasing Prevalance

MGD Risk factors

Demographic	Aging	Menopause
Lifestyle	High screen use	Contact lens wear
Systemic	Diabetes, thyroid disease, rosacea, dyslipidemia, etc	Certain medications
Environmental	Wind exposure, low humidity	Air conditioning



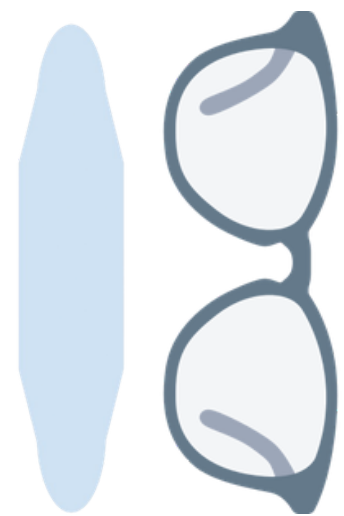
Meta-analysis of worldwide studies reported a pooled global prevalence of approximately 35.8%



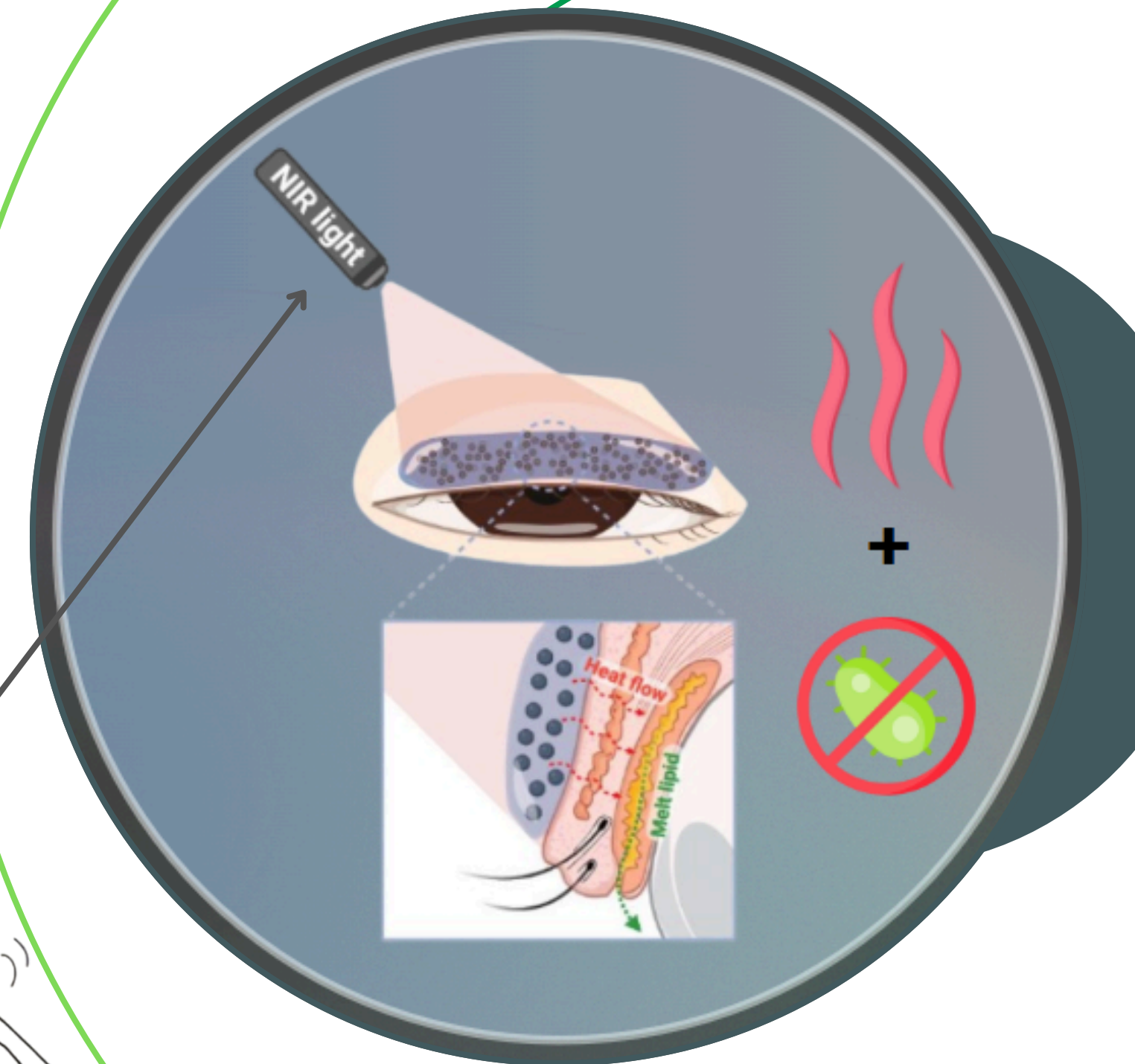


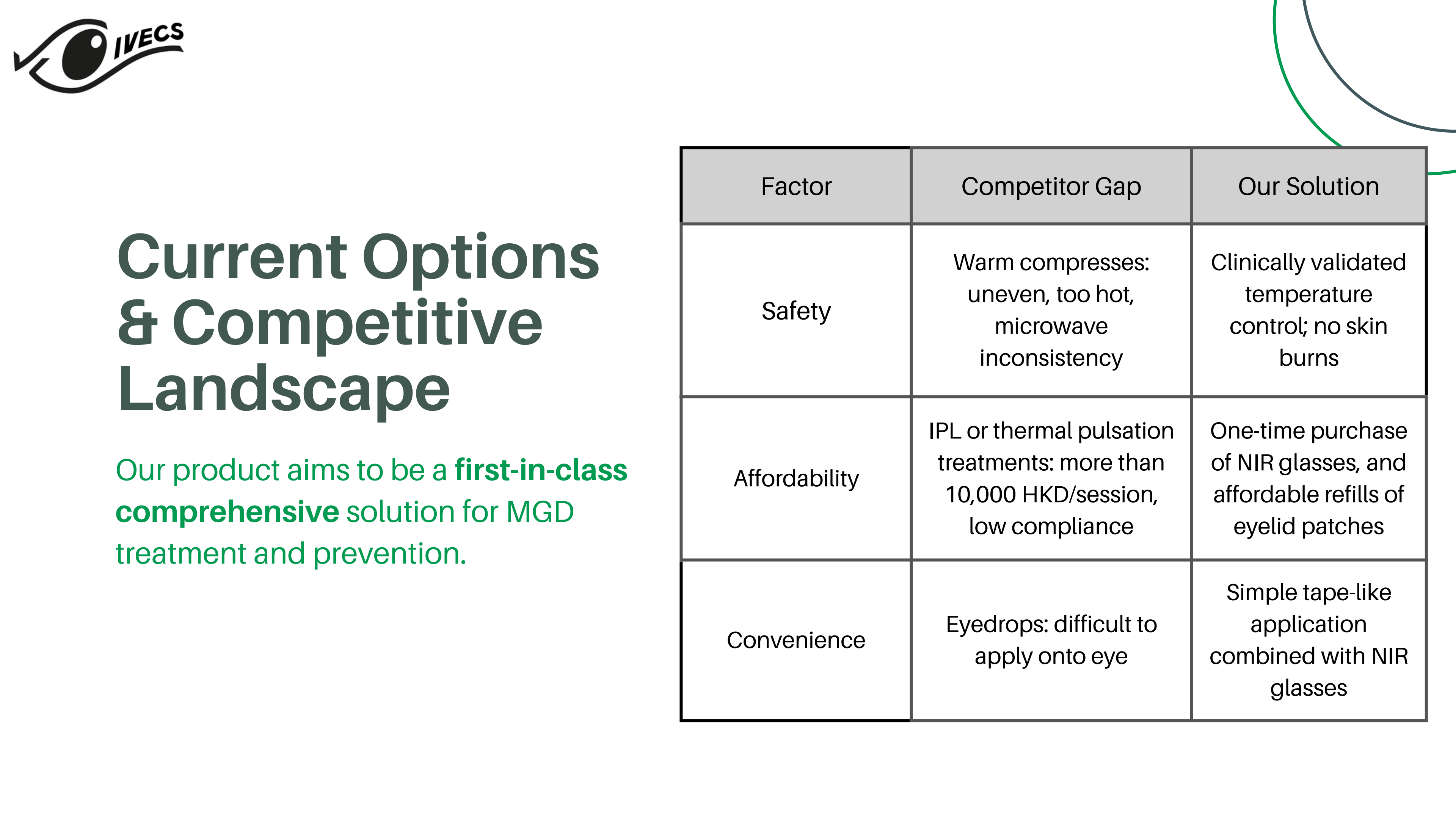
Our revolutionary solution

MGD eye patch



Our material is made into a comfortable eyelid patch that sticks onto the upper and lower eyelids. Upon wearing NIR glasses, our material will be activated to provide controlled, consistent heat delivery for safe, and effective melting of the solidified oils. In less than 15 minutes, MGD will be relieved as the meibomian glands are unclogged and tear film stability is returned. All of this can be done while the users' eyes remain open, causing minimal disturbance to their everyday life.





Current Options & Competitive Landscape

Our product aims to be a **first-in-class comprehensive** solution for MGD treatment and prevention.

Factor	Competitor Gap	Our Solution
Safety	Warm compresses: uneven, too hot, microwave inconsistency	Clinically validated temperature control; no skin burns
Affordability	IPL or thermal pulsation treatments: more than 10,000 HKD/session, low compliance	One-time purchase of NIR glasses, and affordable refills of eyelid patches
Convenience	Eyedrops: difficult to apply onto eye	Simple tape-like application combined with NIR glasses



2025 Global DED Market
Valuation: 11.7 billion USD
(CAGR of 8.5%)

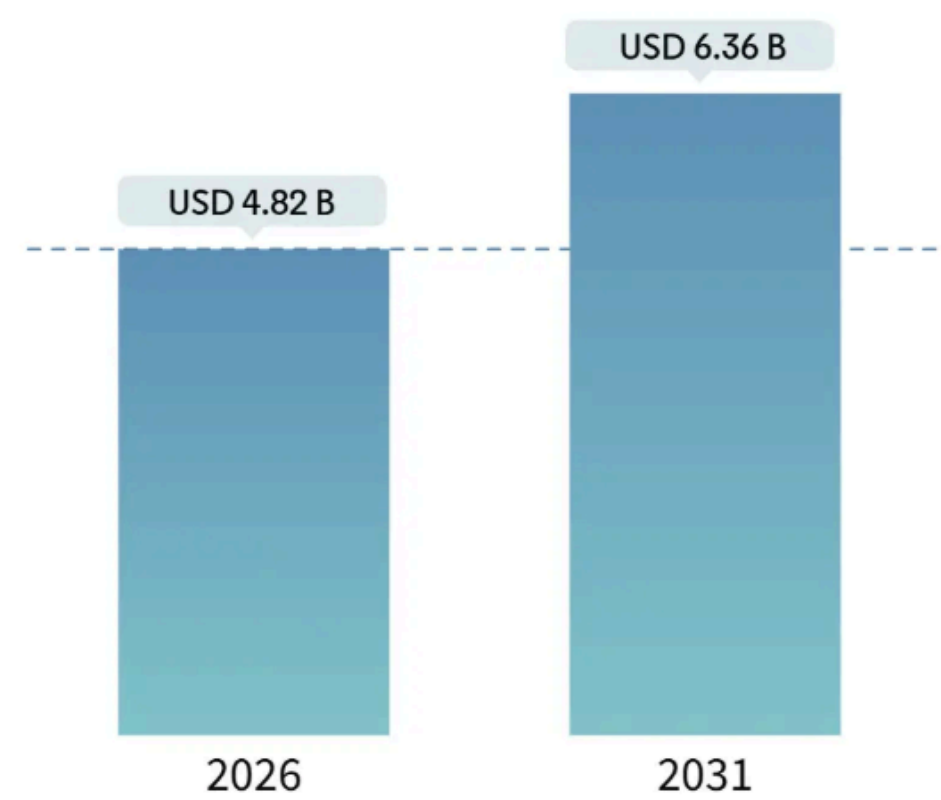
MGD Market

Dry eye disease alone has a massive market...

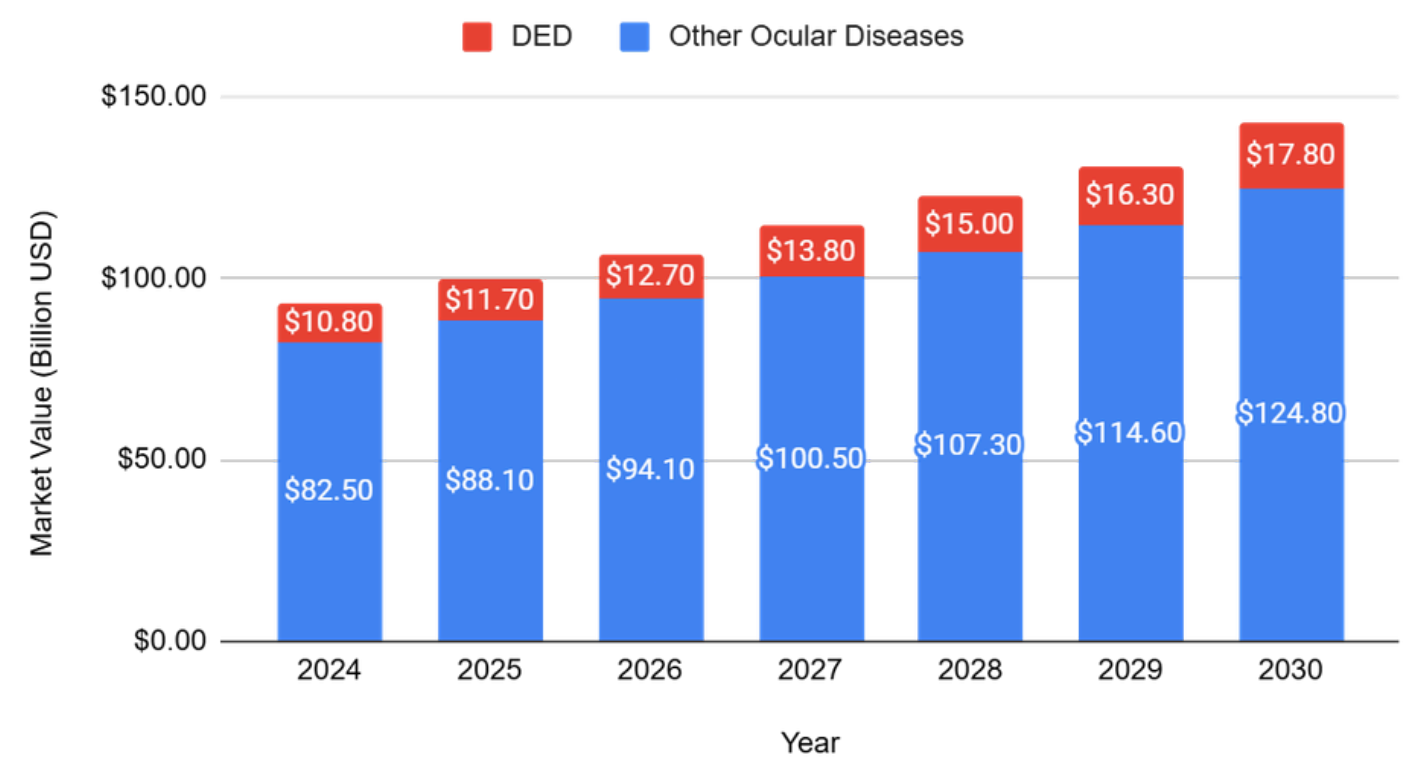
Meibomian Gland Dysfunction
Treatment Market
Market Size in USD Billion
CAGR 5.71%

Home-care solutions are
expanding at an 8.15%
CAGR through 2031

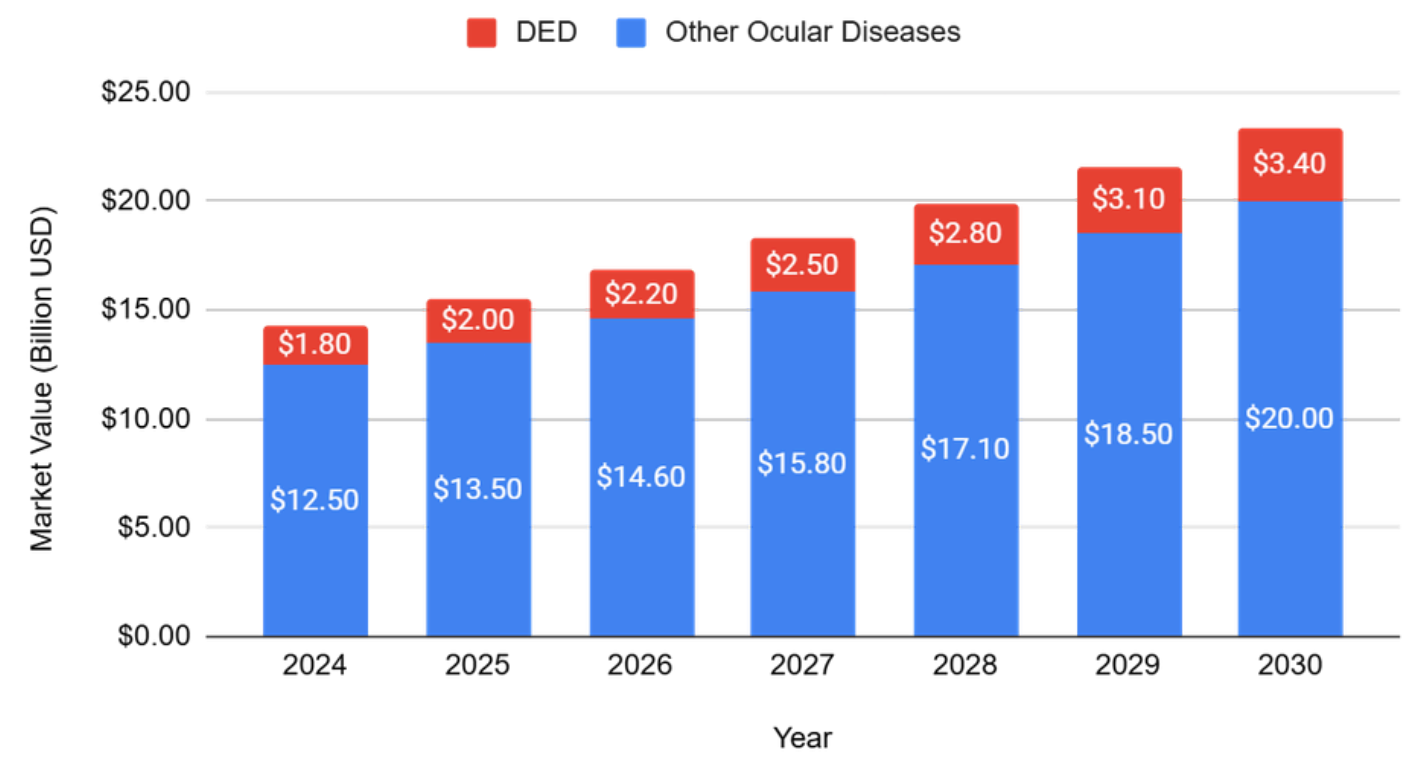
2025 Chinese DED Market
Valuation: 2 billion USD
(CAGR of 11.2%)



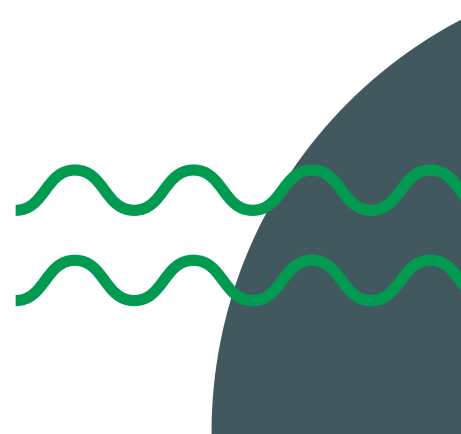
Global Ophthalmology Market



Chinese Ophthalmology Market



This huge market is underestimated as other diseases caused by MGD, such as styes and blepharitis, have not been taken into account.





MGD Market Research

Growing concern and need . . .

Consumer Research Findings

Focus group: people aged 18-60, suffering from DED/regularly wear contact lens/consume wellness products

Issues arising from eye drops:

1. Heavy reliance
2. Lack effectiveness
3. Difficult to apply on their own
4. Unable to use when wearing contact lens or during travel

Clinician Feedback

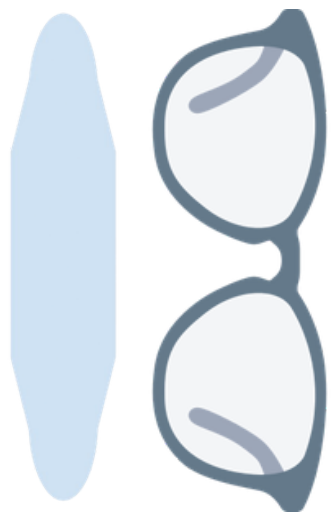
Interviewees: Ophthalmologists, Ocular Surface Diseases Professors

- Due to the multitude of risk factors, there is an increasing prevalence of MGD-DED
- Current treatment options are ineffective due to low patient compliance or lack of affordability



Business Model

Multiple revenue streams



Positioned as a wellness product:

- Shorten go-to-market time due to less strict market regulations
- Target the larger *consumer market*

which includes those who:

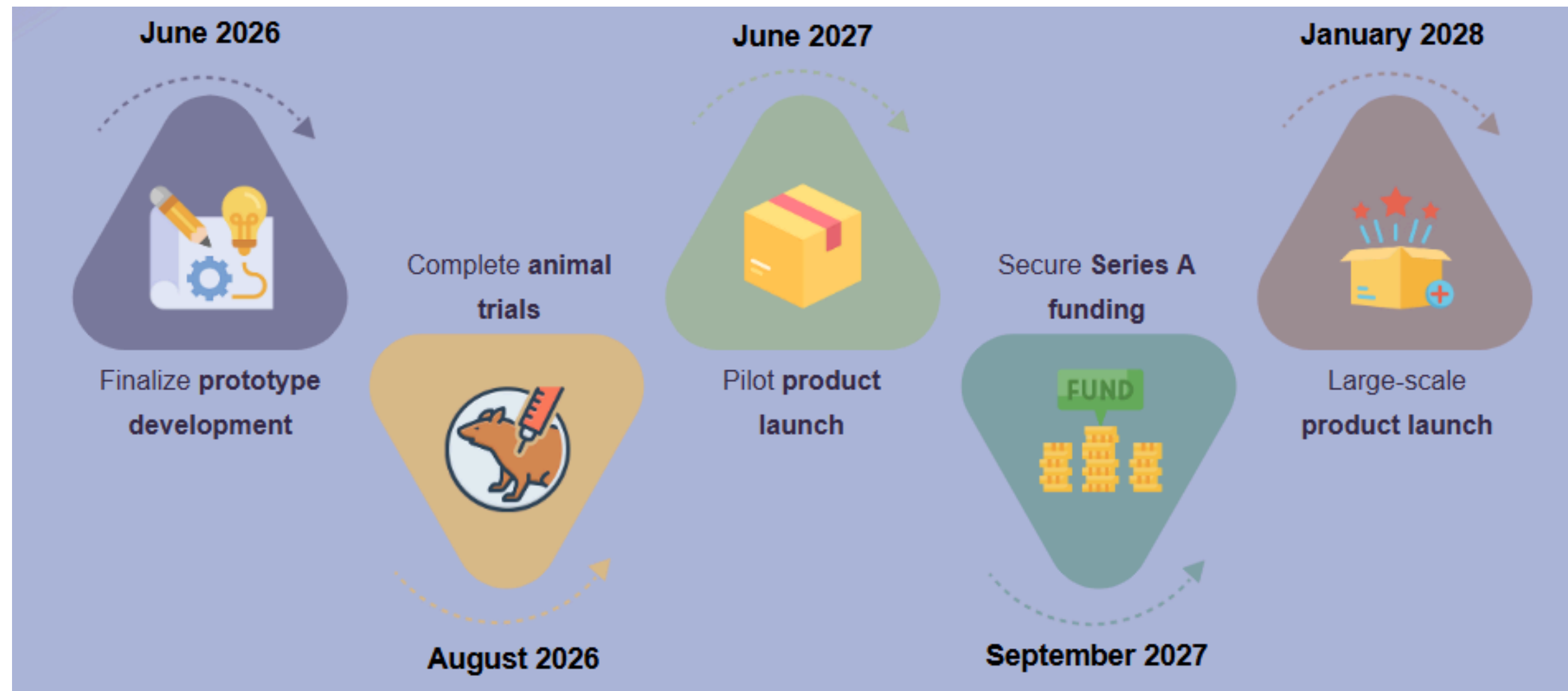
- suffer from MGD
- have high screen-times
- use contact lens
- are conscious about eye health

B2B2C via retailers (mannings, watsons, CVS, etc)

B2C via online retail platforms (taobao, iHerb, etc)



Development Timeline



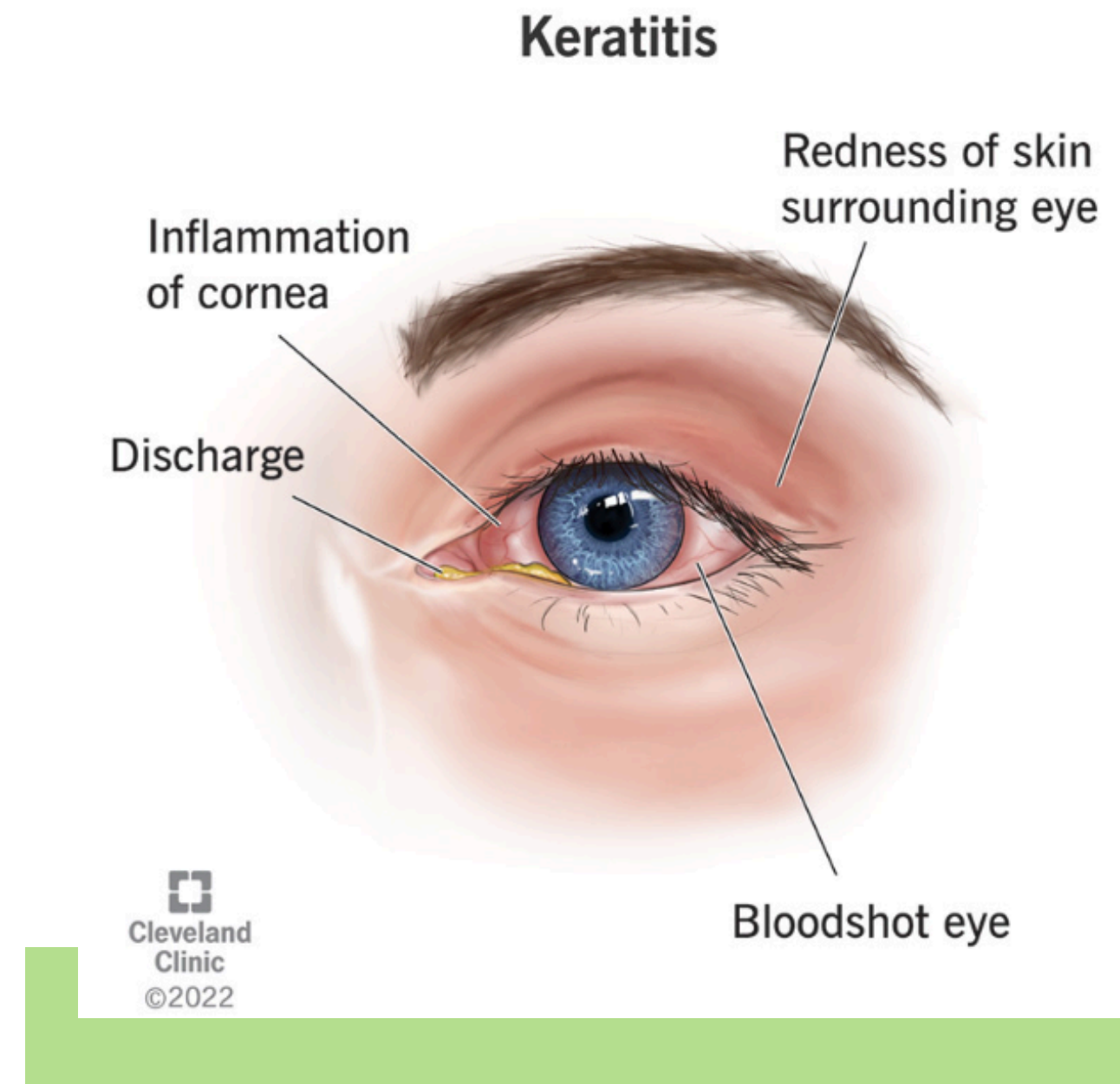
We aim to have our first pilot launch within a year (June 2027) and a large scale release within 2 years.



Contact Lens for Microbial Keratitis Treatment

What is MK?

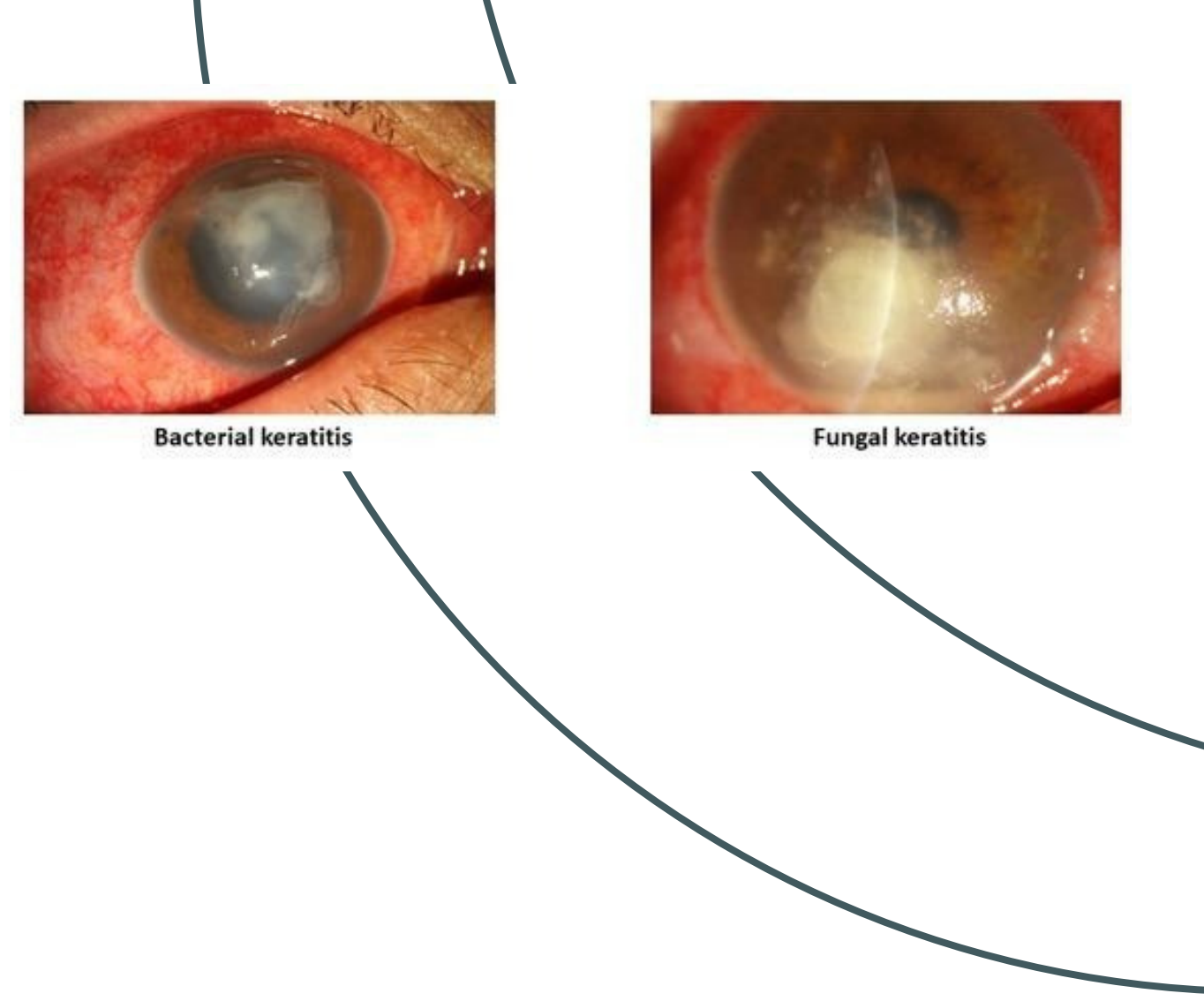
MK is a serious infection of the cornea caused by microorganisms such as bacteria, fungi, acanthamoeba, parasites and viruses. It is often referred to as an infectious corneal ulcer. Keratitis causes extreme pain in the eye and is a serious disease that can cause loss of vision and even blindness within 24 - 48 hours. As such, early intervention and rapid treatment modalities are vital to prevent permanent vision damage.



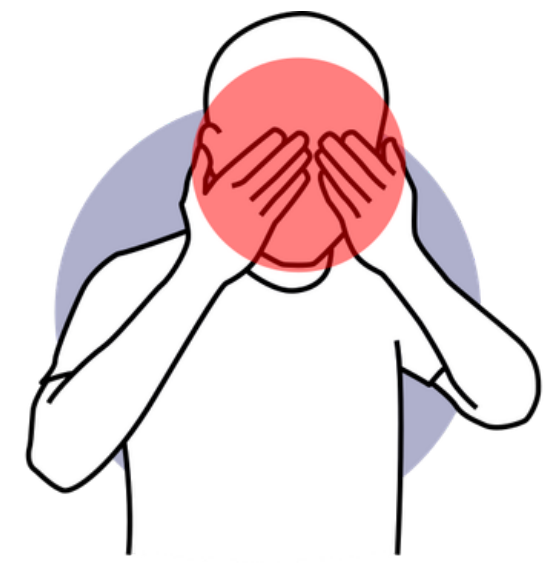
Micorrbial Keratitis

Etiologies

Contact lens wear	22-53% of cases	Incorrect cleaning/storage, overnight/daily wear, lack hygiene
Ocular surface disease	18%	Dry eye, blepharitis, other corneal conditions
Ocular trauma	16%	Scratches, injuries to the corneal epithelium
Prior ocular surgery	11%	Previous eye operations



MK cases often exceed 2 million per year and is extremely prevalent in developing countries and agricultural regions such as in South, South-East, and East Asia.

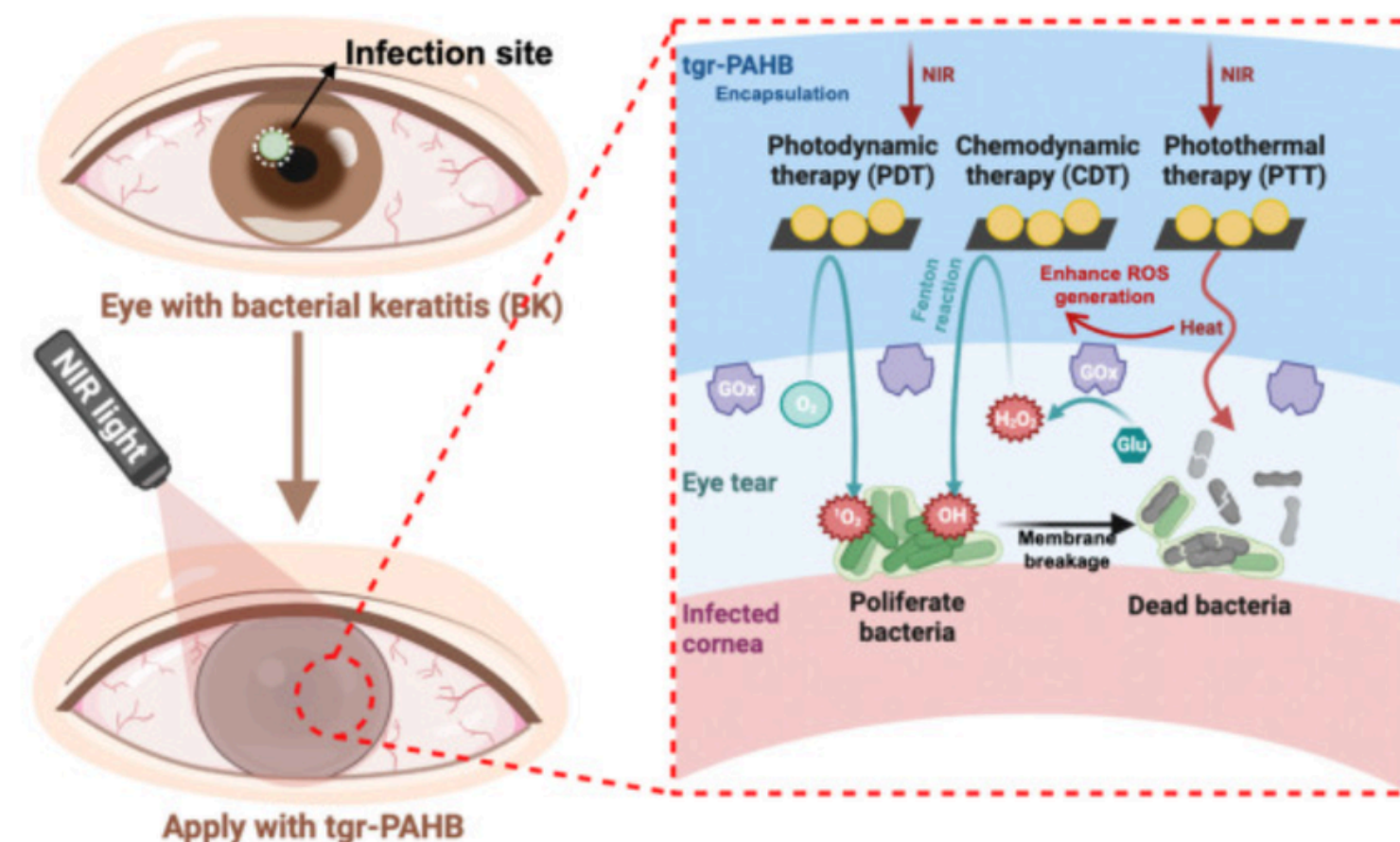




Our Rapid First-line Treatment Method

How it works...

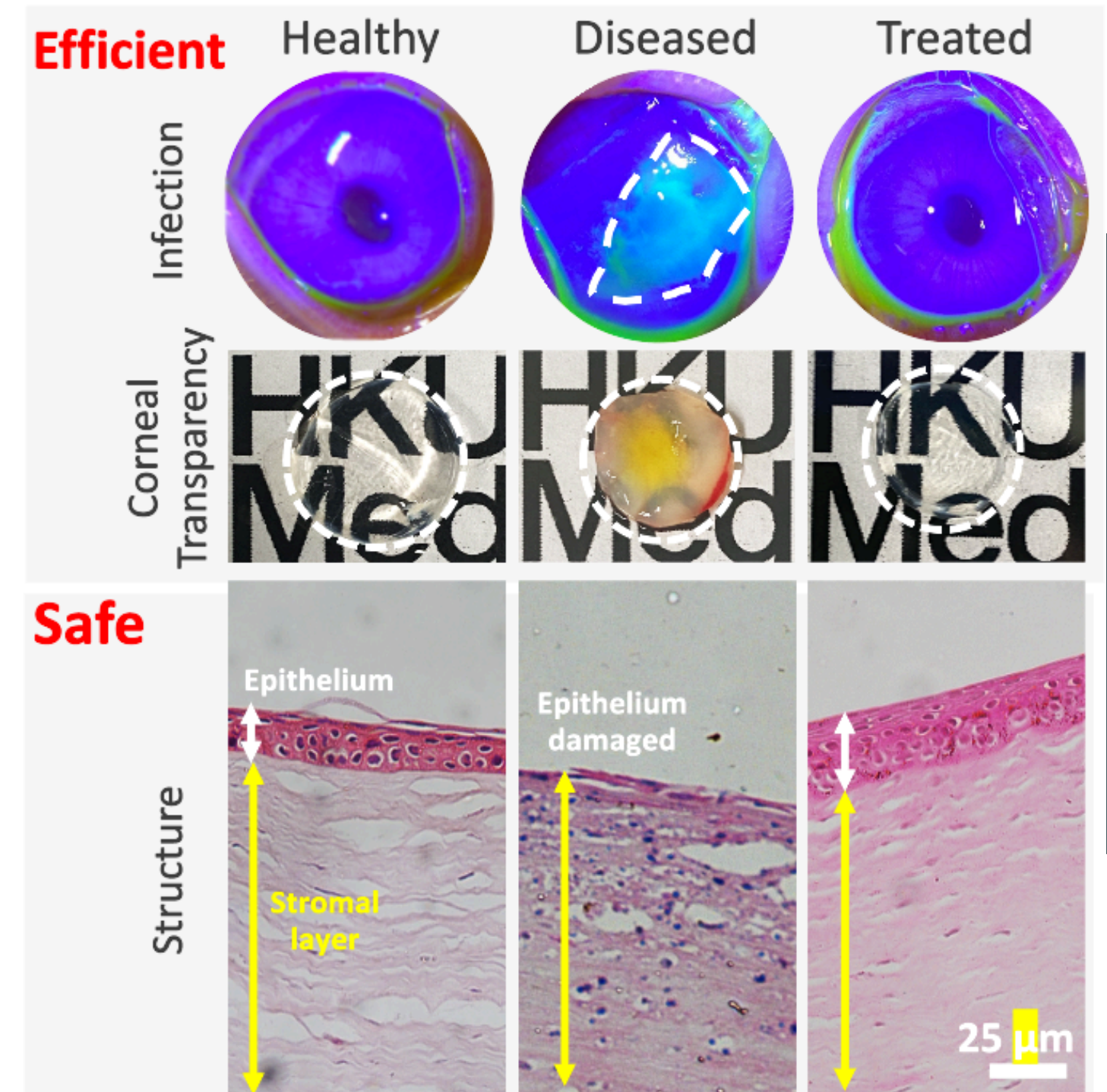
Our material is made into a contact lens for clinical treatment. Upon exposure to NIR light, the contact lens releases ROS which, along with the heat generated, kills the microbes causing the infection. The contact lens also consumes glucose and releases hydrogen peroxide, making the environment hostile to microbial growth. This process only occurs on the area which is exposed to the light, allowing for a localised treatment modality.



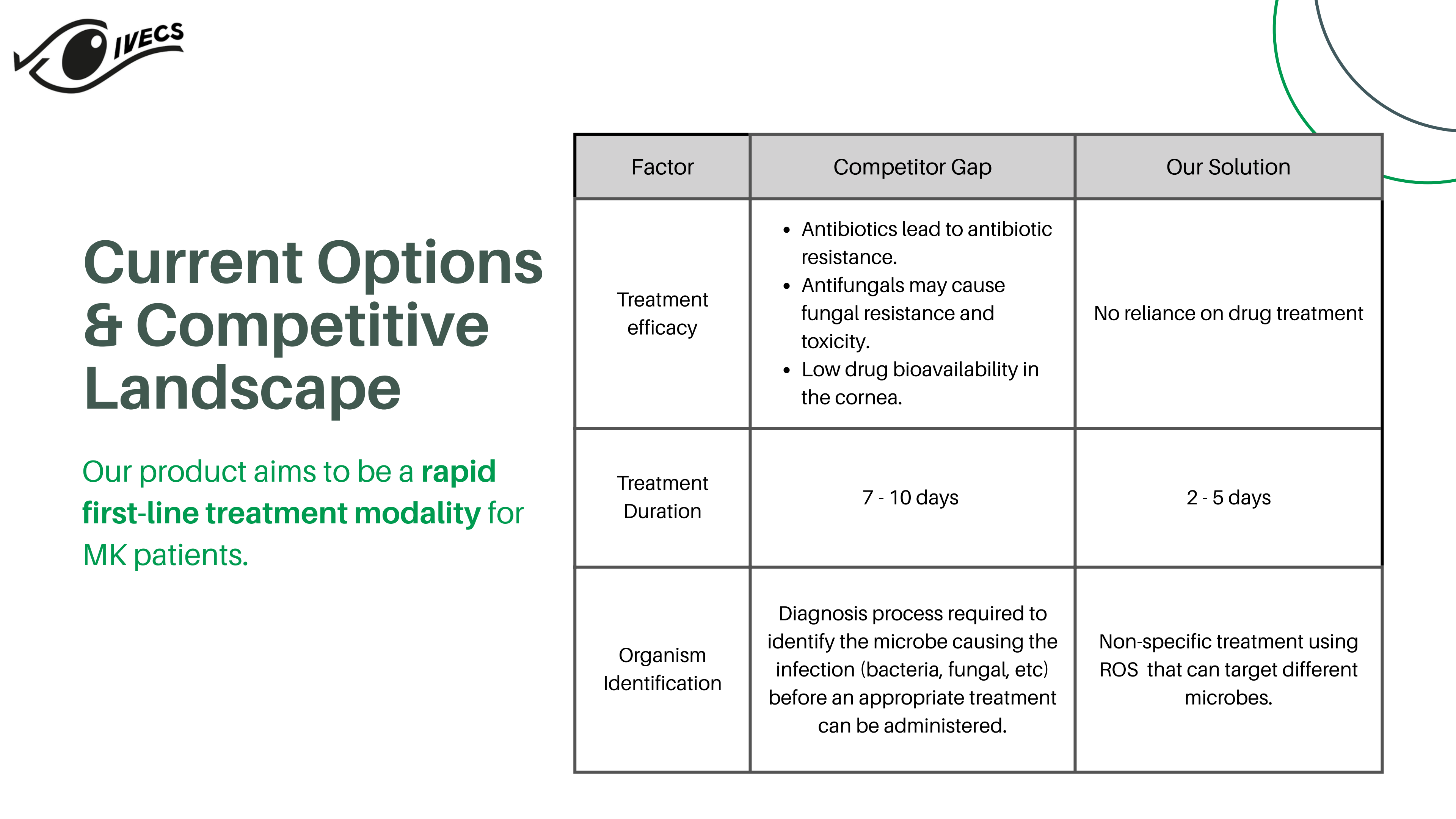
Safe and Efficient Trials on bacterial keratitis rabbit models



Our treatment has been tested on rabbit models with bacterial infections and results indicate that our treatment method is **safe** and **efficient** with **significant improvements** in their conditions.



Efficient elimination of bacteria and safe
[in Rabbit infectious keratitis model]



Current Options & Competitive Landscape

Our product aims to be a **rapid first-line treatment modality** for MK patients.

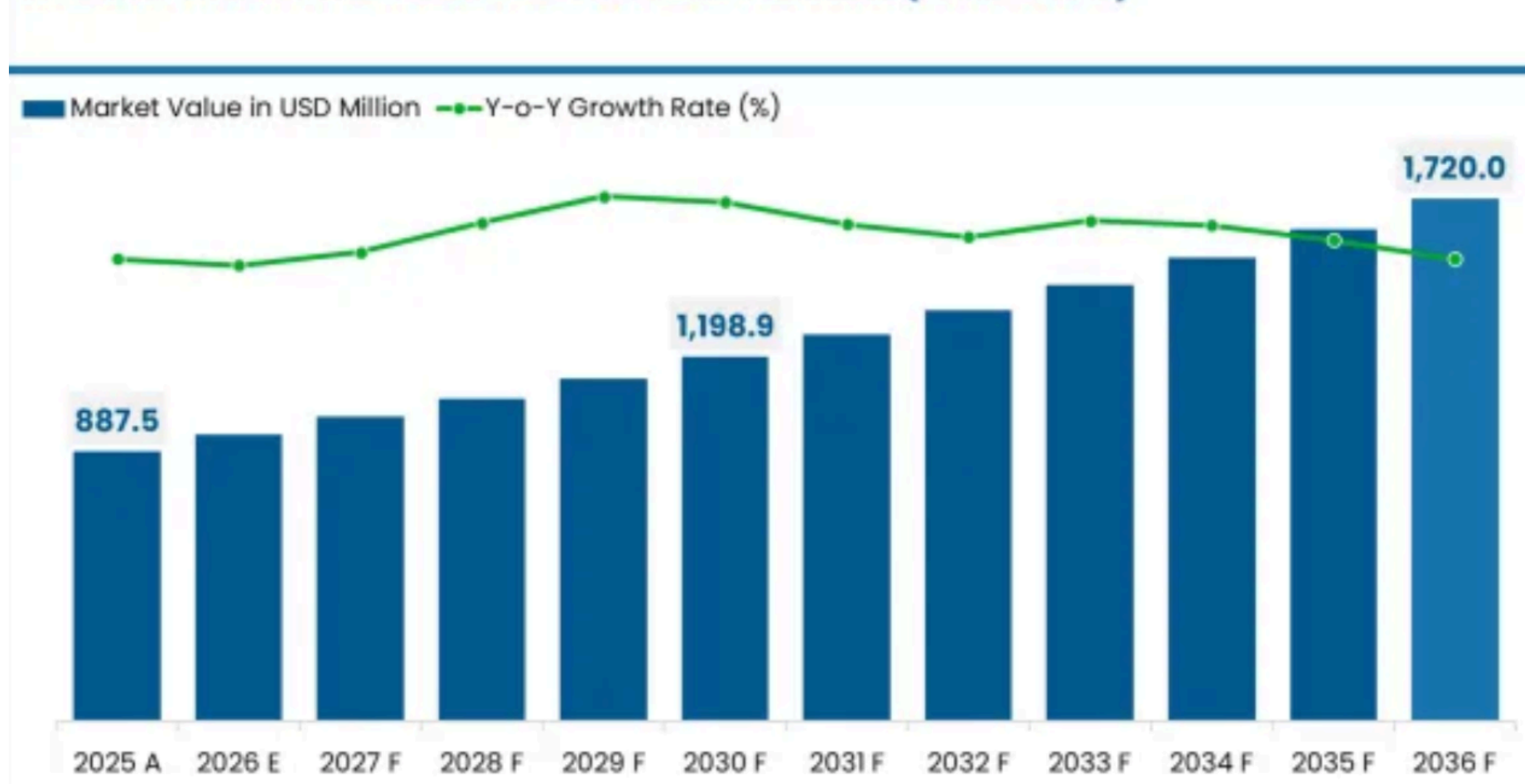
Factor	Competitor Gap	Our Solution
Treatment efficacy	• Antibiotics lead to antibiotic resistance. • Antifungals may cause fungal resistance and toxicity. • Low drug bioavailability in the cornea.	No reliance on drug treatment
Treatment Duration	7 - 10 days	2 - 5 days
Organism Identification	Diagnosis process required to identify the microbe causing the infection (bacteria, fungal, etc) before an appropriate treatment can be administered.	Non-specific treatment using ROS that can target different microbes.



MK Market

A growing concern...

Keratitis Treatment Market Size & CAGR Forecast (2025–2036)



The market is projected to reach USD 942.5 million in 2026 and USD 1.72 billion by 2036, growing at a CAGR of 6.2%.

Hydrogel Bandage for Pterygium & Melanoma

What are they?

Pterygium

A condition where cells mutate and grow into a tissue which covers the eye.



Melanoma

A condition where cells mutate and become cancerous.





Hydrogel Bandage for Pterygium & Melanoma - treatment options

Treatment	Pterygium	Conjunctival Melanoma
Surgery	High recurrence rate after surgery, and removal becomes more complicated.	Surgery is standard treatment, however high recurrence rate leads to poor prognosis. Surgery may cause scarring.
Adjuvant therapy	Artificial tears, steroid eye drops only to relieve symptoms. Other medications such as Mitomycin C and 5-Fluorouracil have toxic side effects.	Rare cancer has limited standardized treatment options.

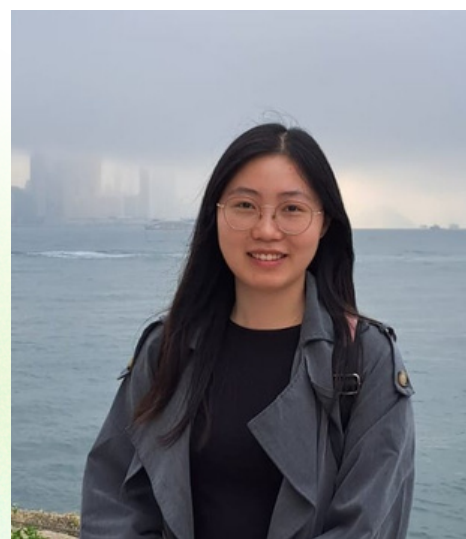
We aim to explore the use of our material for the treatment of pterygium and conjunctival melanoma without surgery and the associated side effects of current treatment methods.



Our Team



MR DANIEL NG, CEO
*Ex-Beckman Coulter Engineer
Ex-Accenture and Google*



DR. ZHOU LIANGYU, CTO
Postdoctoral Fellow @ ABIC



PROF. JOSEPH CHAN, SCIENTIFIC CONSULTANT
Associate Professor @ HKUMed



PROF. KENDRICK SHIH, CLINICAL CONSULTANT
Clinical Associate Professor of Practice @ HKUMed



HKU Med

School of Clinical Medicine
Department of Ophthalmology
香港大學眼科學系



MR JAY LAM, BUSINESS CONSULTANT
Entrepreneur & Aurabeats Senior Business Development Manager



MR KENJI LOOK, LEGAL ADVISOR
Incoming US Firm Attorney



MS NAFISA HUMAYRA, PRODUCT SPECIALIST
Researcher & Biomedical Engineer



瑪麗醫院
Queen Mary Hospital



中南大学湘雅醫院
XIANGYA HOSPITAL OF CENTRAL SOUTH UNIVERSITY



Thank You

WeChat



Linkedin



+852 6878 6955



daniel.ng@abic.hk

