



**ARTIFICIAL
CORNEA**

NANO 
CURV

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RESTORING SIGHT: OUR VISION

Our mission is to bring longer-lasting sight to those who have been affected by corneal blindness. The NanoCurv's patented pillars and grooves were inspired by the texture of dragonfly wings. As a result, our device promotes healthy cell growth and kills infectious bacteria and fungus, leading to better patient outcomes.



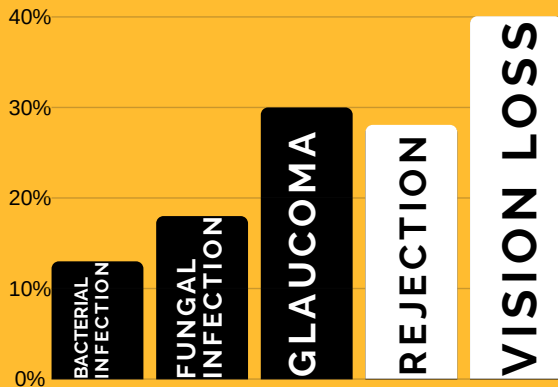
1 IN 70
RECEIVE TREATMENT GLOBALLY

There are approximately 13 million people around the world suffering from total corneal blindness. However, due to a global shortage of donor corneas, their high price tag and short shelf life, only 1 in 70 of those in need receive a corneal transplant.

CORNEAL BLINDNESS

Implant Complications

Artificial (black) & Donor (white)



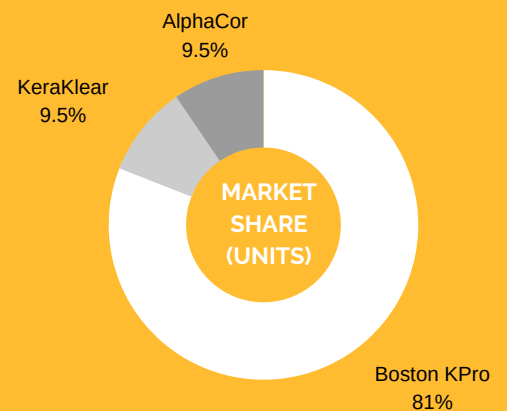
A CLEAR PROBLEM:

The lifechanging sight restored to patients by donor corneas is often far too short-lived: only 60% of the grafts still function ten years after implantation. Current artificial solutions offer lower rejection rates, at the cost of higher risks of developing glaucoma and infection. Despite a lifelong regimen of antibiotic eyedrops, over half of all artificial implant recipients will experience these potentially painful and lifelong complications.

COMPETITION IN FOCUS:

The three artificial devices currently on the market have been struggling to gain traction since their introduction, and are utilized in only a few hundred cases per year (.12% of US and .08% of global transplants) worldwide due to their high complication rates. Meanwhile, the global demand for donor corneas continues to rise. Approximately 185,000 donor corneal transplants were performed in 2017, of which 51,000 were performed in the U.S.

	NO ANTIBIOTIC EYEDROPS	BIO-INTEGRATION	LOW COST	DOES NOT REQUIRE DONOR
NANOCURV	✓	✓	✓	✓
BOSTON KPRO	✗	✗	✗	✗
KERAKLEAR	✗	✗	✓	✓
ALPHACOR	✗	✓	✗	✓
DONOR CORNEA	✓	✗	✗	✗

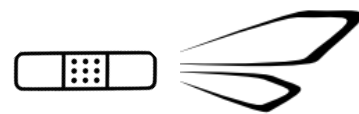


KEEP YOUR SIGHT LONGER WITH NANOCURV

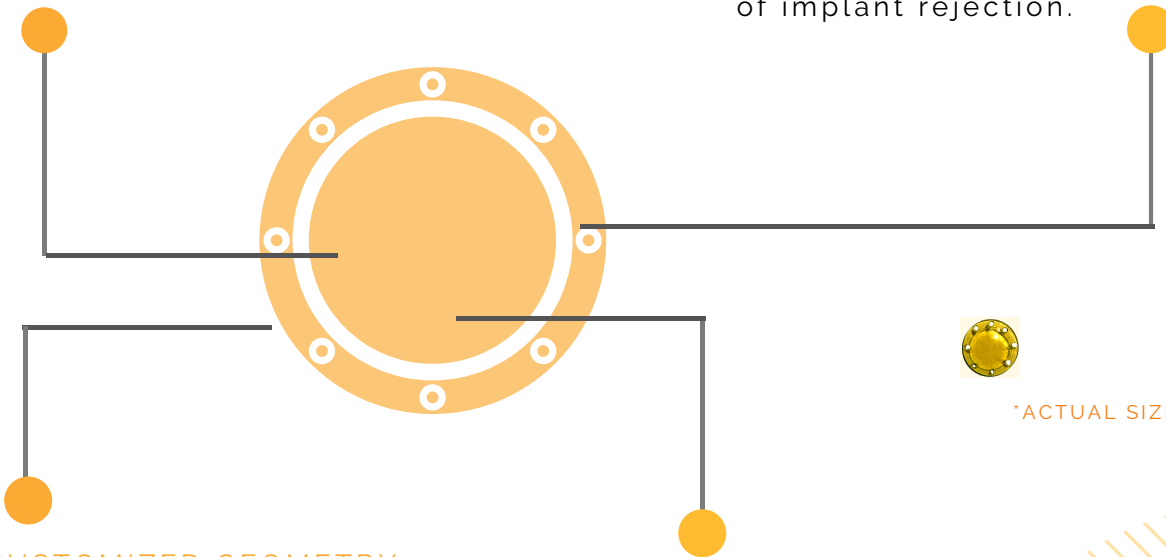
We have designed a new artificial cornea solution inspired by mimicking the texture of cicada and dragonfly wings. Unlike the current treatment options available to those suffering from corneal blindness, our keratoprosthesis features patented nanopatterning technology designed to enhance post-surgical wound healing and fend off bacterial and fungal infection. The surface texturing consists of two major components: nanopillars and nanogrooves.



NANOPILLARS act like tiny needles, rupturing bacteria on contact. This will decrease complication rates and eliminate the need for application of antibiotic eyedrops.



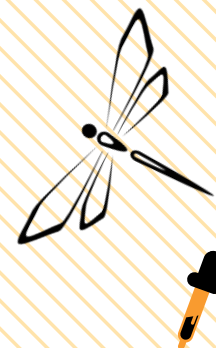
NANOGROOVES around the outer edges of the devices provide a surface which tissue cells can attach to and align with. This is expected to improve patient recovery and reduce the chance of implant rejection.



CUSTOMIZED GEOMETRY ensures that light passing through the device is optimally refracted for each patient, resulting in sharper, clearer vision.



BIOCOMPATIBLE MAKEUP is derived from all-natural chitosan and safe enough to eat. Flexible yet resilient, strong and crystal clear, this material is the ideal material for affordably producing NanoCurv artificial corneas.



**NO
MORE
EYE
DROPS**

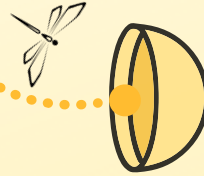
LOOKING AHEAD



**PATENT
PENDING**



R&D



EXPANSION INTO THE CONTACT LENS MARKET. NanoCurv technology is also being applied to a hard contact lens. This market alone is currently valued at over \$2.5 Billion

MANUFACTURING

Performed in house



EXPANSION OF THE MARKET to begin reaching the 53% of global patients who currently have no access to treatment due to the short shelf life and storage constraints of donor corneas.

FDA APPROVAL

Two studies away from 510(k) submission



DISTRIBUTION



SALES FORCE

Ophthalmologist relationships and adaptation



CE MARK



REVENUE

Estimated Cost:

\$40 /cornea

Affordable Price:

\$2000 /cornea

Estimated Revenue:

\$1960 /cornea

INSURANCE AGENCIES

Reimbursement lowers price barriers



MEET THE TEAM: SMALL, SMART, FLEXIBLE

1 TECHNICAL LEAD

5 ENGINEERS

2 OPHTHALMOLOGISTS

1 ACADEMIC ADVISOR

1 INDUSTRY ADVISOR

1 BUSINESS LEAD