Tissue-Integrating Implants

Focusing on the CorNeat eShunt, Revolutionary Glaucoma Drainage Device

Executive Summary

2024

Unmatched Biomimetic Solution Supporting A Variety Of Surgical Applications

EverMatrix™ Platform Technology

The Science

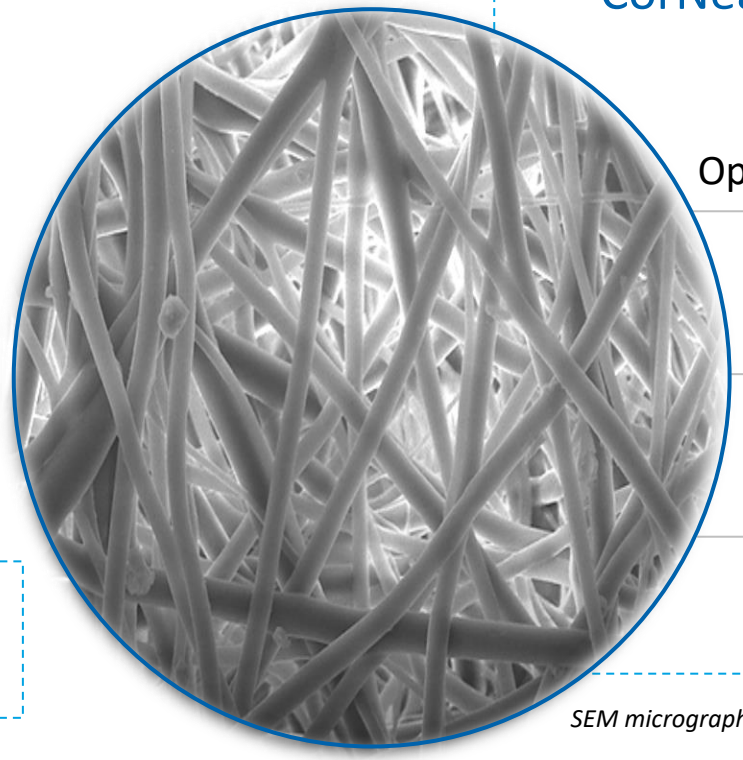
CorNeat Vision's EverMatrix™ technology consists of a non-degradable biomimetic material creating a polymeric porous mesh that emulates the microstructure of the ECM

Platform Capabilities

Utilized to heal and repair the human body following any kind of trauma or surgical intervention, permanently embedding itself with surrounding tissue without triggering an adverse foreign body response that leads to encapsulation

Physical attachment of implants to tissue	*Soft tissue repair & reinforcement*	*Concealment of implants & sensors*	*Fabrication of membranes & tissue barriers*

CorNeat Vision Portfolio



SEM micrograph of EverMatrix™

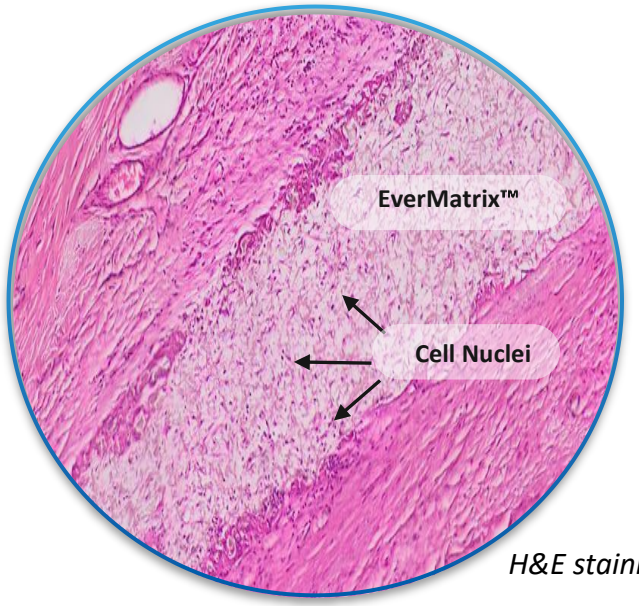
- Ophthalmic Surgery
- Corneal Implants
- Glaucoma Shunts

A synthetic substitute alleviating common shortcomings of reconstructive surgery

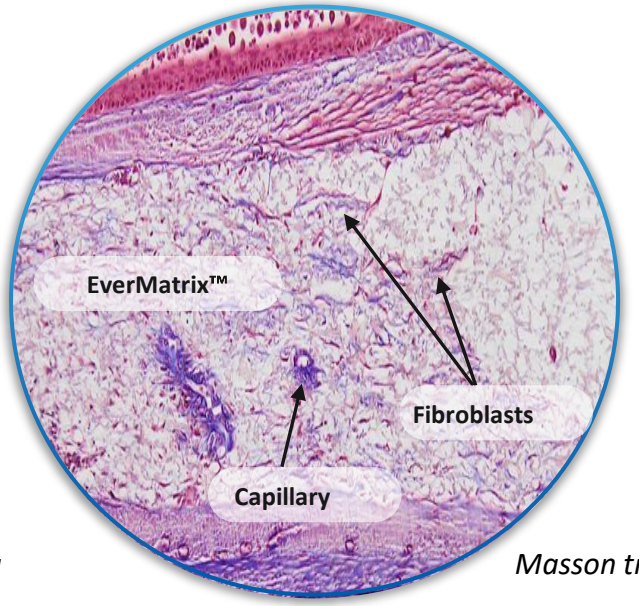
EverMatrix™ Promotes Superior Bio-Integration Enabling Hastened Healing Results

EverMatrix™ Technology Histologic Case Study

In-vivo studies demonstrate full fibroblast colonization and abundant collagen deposition as well as presence of capillaries within the material within weeks post implantation



H&E staining



Masson trichrome

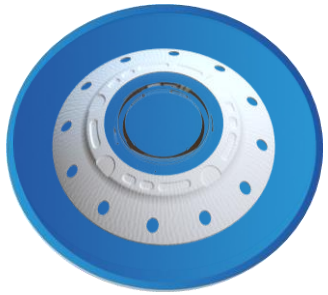
1. Anatomical apposition of synthetic material
2. Stimulates cellular proliferation
3. Progressive tissue integration
4. Bio-integrated, permanent solution

EverMatrix ™poised for market disruption offering novel approach for tissue connectivity

Value Proposition

Innovative Product Portfolio Showcases EverMatrix™ Technology Versatility

CorNeat KPro



Self-integrating artificial cornea

Clinical Stage

- ✓ Superior & reliable bio-integration
- ✓ Immediate, optimal vision rehabilitation
- ✓ Cost-effective procedure with no risk of transmitted disease
- ✓ Simplified procedure with improved recovery and downtime

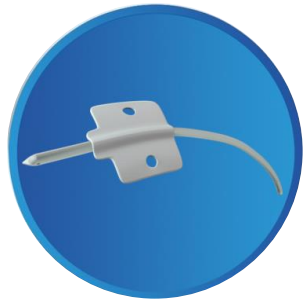
CorNeat EverPatch

Tissue-integrating matrix

FDA CLEARED

- ✓ Eliminates congestion & inflammation common with current standard of care
- ✓ Removes risk of donor transmitted disease and long-term complications
- ✓ Cost effective device with no biological materials and long shelf life
- ✓ Reduced procedure time

CorNeat eShunt



Self-regulating glaucoma drainage device

Pre-Clinical Stage

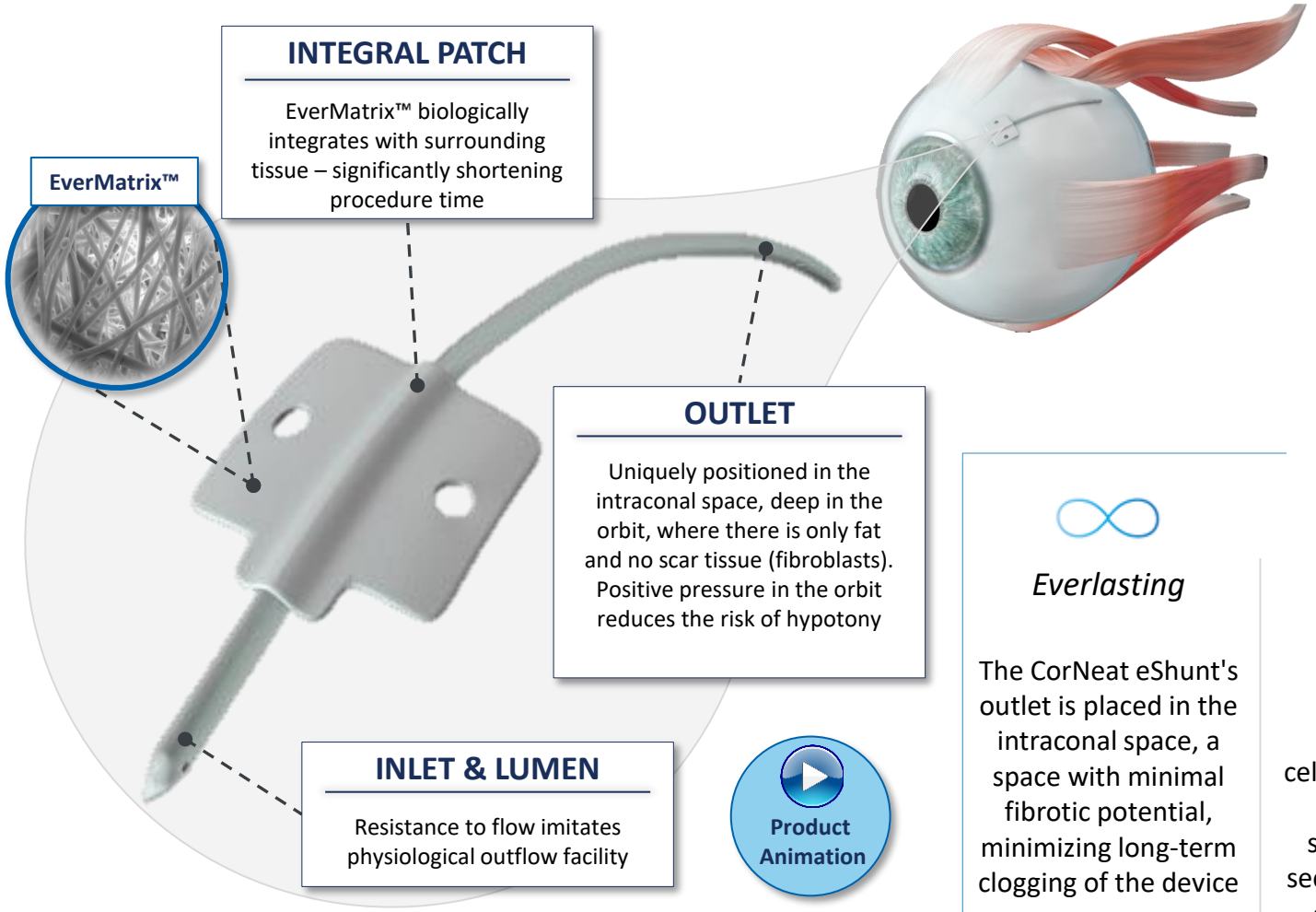
- ✓ Innovative design reduces and stabilizes IOP with no reliance on scarring
- ✓ Ocular tube seamlessly integrates to surrounding tissue with no device rejection
- ✓ Superior drainage & low risk of device blockage
- ✓ Less invasive procedure with shortened turnaround time

CorNeat Vision's product line is positioned to meet demands of multiple high impact markets

corneat vision

CorNeat eShunt

Addresses Leading Shortcomings of Glaucoma Standard of Care



*Improved Outcomes via **CorNeat eShunt***

- ✓ Implantation performed in under 20 minutes
- ✓ ***Regulation of IOP***: Adaptive flow mirrors pressure elevation
- ✓ ***Prolonged Patency***: Outlet positioned deep in orbital space
- ✓ ***Safety***: Non-immunogenic integration within ocular tissue

CorNeat eShunt Advantages

Everlasting

The CorNeat eShunt's outlet is placed in the intraconal space, a space with minimal fibrotic potential, minimizing long-term clogging of the device

Bio-Integrating

A synthetic, non-degradable, ECM-like material stimulates cellular growth and device integration into the subconjunctival space, securing the device to the eye wall permanently

Physiological Approach

Engineered to imitate the human physiologic drainage pathways, all-the-while, reacting to changes in intraocular pressure, dynamically draining the amount needed

Ease of Implantation

Implantation procedure can be completed in under 20 minutes and does not require additional, processed, tissue

The CorNeat eShunt Extends Minimally Invasive Surgery to Severe and Refractory Patients/Cases

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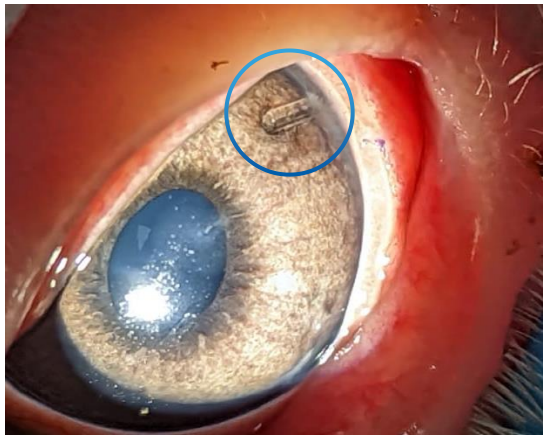
In-Vivo Validation of Superior Cellular Integration & Colonization

Animal Implantations

CorNeat eShunt covered and concealed from the conjunctiva using a tissue integrating patch

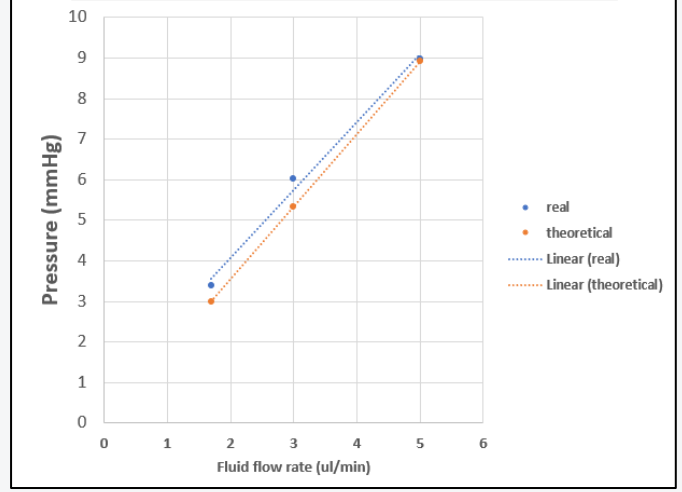


CorNeat eShunt implanted in a pig's eye

Animal studies proved surgical technique, tissue integration, and drainage mechanism

Final Product

Pressure/Flow regime



Formal bench tests proved CorNeat eShunt IOP regulation function

Biocompatible & Fully-Integrated CorNeat eShunt Delivers Efficacious Results