Technology information form

Technology title
iGen™—a biodegradable collagen implant for glaucoma, pterygium and selected ophthalmic laser and ophthalmic surgery treatment.
One sentence description of technology
iGen™ is a collagen implant, and is a biodegradable scaffold which can induce a regenerative non-scarring wound healing process without the use of medicine. The ophthalmology applications for iGen™ include glaucoma, pterygium, ocular tissue, and veterinary use.
Development status
Early stage __ Preclinical __ Phase I __ Phase II __ Phase III **X** Phase IV __ Preregistration __ Registered __
Full description (Less than 400 words)
iGen™ is a collagen implant, and is a biodegradable scaffold which can induce a regenerative non-scarring wound healing process without the use of medicine. This collagen implant improves the remodeling of the regenerating tissue and prevents scar formation. As stated, iGen™ is used not only for trabeculectomy, but also other ophthalmic surgeries, such as pterygium removal, rejuvenation of ocular tissue for presbyopia, oculoplastic surgery and veterinary surgery. **iGen™ in Glaucoma Applications** For glaucoma applications, ophthalmologists simply operate using the standard procedure for trabeculectomy and simply implanting **iGen™** on the top of the scleral flap under the conjunctiva before suturing. The trabeculectomy procedure using the **iGen™** implant can ensure a more than 95% success rate without the application of anti-fibrotic or anti-proliferative agents. The principal of the **iGen™** collagen implant is to induce fibroblast to grow randomly, which leads to the wound healing normally. The **iGen™** scaffold's porous structure can work as a reservoir, a buffering system, and a controlled drainage solution. It randomizes the growth of myofibroblasts and creates a new physiological environment between the anterior chamber and subconjunctival space of the eyeball. **iGen™** maintains the physiological barrier by regeneration which maintains both the function of the bleb and normalizes the dynamic aqueous balance to create a safe

conjunctival system.

iGen™ in Presbyopia Treatment

iGen™ application in presbyopia treatment helps to generate low density ocular tissue instead of scar tissue. The procedure results in a more elastic ocular tissue and leads to better accommodation ability for the presbyopic eye.

iGen™ in Other Applications

1. Pterygium surgery (reduces recurrence)
2. Failed trabeculectomy
3. Neovascular glaucoma
4. Inadequate conjunctiva: Severe conjunctival scarring following surgery
5. Impending need for PKP
6. iGen™ replaces the need for expensive GDDs and anti-fibrotic agents particularly important for developing countries
7. Glaucoma with uveitis
8. Primary trabeculectomy
9. Nasolacrimal duct surgery (prevents scar formation)
10. Orbital surgery
11. Eye plastic
12. Chemical burns

Patent status and no.
Patent pending application US 11/471,695 Patent pending application US 60/796,871 Patent no.: TW I238712
Type of business relationship sought
Licensing or partnering
Licensing contact

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