

Singapore develops new glaucoma implant that reduces eye pressure

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The implant has undergone rigorous safety and biocompatibility studies in the laboratory and in animal studies before being implanted in patients



A new glaucoma implant developed by a National University Health System team in Singapore reduces patients' eye pressure (also known as intraocular pressure, IOP) for a longer period of time and enables less reliance on eye drops.

The Paul Glaucoma Implant (PGI) is a glaucoma drainage device which regulates IOP and prevents further progression of the disease that leads to blindness.

With a higher efficacy and safety profile in reducing IOP, this medical technology innovation advances the treatment of glaucoma. In patients with medically uncontrolled glaucoma, the PGI offers a viable option in the management of refractory glaucoma, a severe form of glaucoma that has a high risk of failure from conventional trabeculectomy surgery.

The implant is licensed to a startup company Advanced Ophthalmic Innovations Pte Ltd (AOI) and has been used for glaucoma treatments in Singapore, Europe, South Africa, Middle-east, and Asia-Pacific.

"An important aim that we have achieved with the Paul Glaucoma Implant is to design a shunt that is less invasive inside the eye, with its much smaller tube than conventional implants, without compromising efficacy across the spectrum of recalcitrant glaucomas," added Professor Keith Barton, a glaucoma specialist with Moorfields Eye Hospital in the United Kingdom and a visiting Professor with NUS Medicine. He was also involved in the design phase of the PGI.