

Laser Photocoagulation To Stabilize Collector Channels To Enhance Aqueous Flows

Tech ID: 32529 / UC Case 2020-663-0

BRIEF DESCRIPTION

Inventors at the University of California, Irvine have developed a laser-emitting device that treats glaucoma by enlarging and stabilizing collector channels in order to enhance aqueous outflow and reduce intraocular pressure (IOP).

SUGGESTED USES

·Treatment of glaucoma by relieving IOP.

FEATURES/BENEFITS

·Direct treatment of collector channels; a novel concept as these channels are hidden & microscopic.

·Can complement treatments done by currently available MIGS (minimally invasive glaucoma surgical) devices, potentially increasing long term efficacy of trabecular bypass MIGS procedures.

·Device can be coupled with the existing MIGS device inserters.

·Device can perform both imaging and enlargement/stabilization of collector channels.

TECHNOLOGY DESCRIPTION

Currently, in order to treat glaucoma, ophthalmologists utilize several FDA-approved minimally invasive glaucoma surgical (MIGS) devices. MIGS are used to surgically remove the trabecular meshwork, which acts like a filter, to expose the underlying Schlemm's canal and its collector channels. However, overtime, the canal and collector channels often collapse, causing an increase in intraocular pressure. When patients fail a MIGS procedure, surgeons would commonly recommend for a more invasive and often significantly riskier surgeries such as trabeculectomy or placement of a glaucoma drainage device.

Inventors at the University of California, Irvine have designed the concept of a novel laser-emitting device that utilizes a laser photocoagulation method to scar, and therefore stabilize the collector channels by decreasing their elasticity properties. Subsequently, the scarring mediates stabilization of the collector channels such that the channels remain open, allowing the passage of fluid and lowering of the IOP.

PATENT STATUS

Patent Pending

STATE OF DEVELOPMENT

Development is on-going.

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INVENTORS

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OTHER INFORMATION

CATEGORIZED AS

» **Medical**

» Devices

» Disease:
Ophthalmology and
Optometry

» Therapeutics

RELATED CASES

2020-663-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

► [Imaging Method for Improved Placement of MIGS](#)

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