AI-Powered Trabecular Meshwork Identification for Glaucoma Surgeries

Tech ID: 33996 / UC Case 2022-930-0

CONTACT

Alvin Viray
aviray@uci.edu
tel: 949-824-3104.



OTHER INFORMATION

CATEGORIZED AS

- **Biotechnology**
  - Health
- **Computer**
  - Software
- **Medical**
  - Disease: Ophthalmology and Optometry
  - Software

RELATED CASES

2022-930-0

BRIEF DESCRIPTION

A revolutionary software that integrates with surgical microscopes to accurately locate the trabecular meshwork (TM), enhancing the safety and efficiency of glaucoma surgeries.

FULL DESCRIPTION

This technology is an artificial intelligence (AI) software designed to assist surgeons during glaucoma surgeries by accurately identifying the trabecular meshwork (TM) in real-time. By projecting the TM's predicted position directly onto the surgeon's view, it aims to reduce misidentification rates, thereby minimizing complications and improving surgery outcomes.

SUGGESTED USES

- Integration with surgical microscopes for real-time guidance during glaucoma surgeries.
- Surgical training programs for ophthalmology residents and specialists.
- Automated screening tools for identifying glaucoma surgery candidates.
- Intraoperative assistive technology for minimally invasive glaucoma surgeries.

ADVANTAGES

- Significantly improves the accuracy of TM identification during surgery.
- Reduces the likelihood of surgical complications.
- Decreases the overall healthcare costs by reducing the need for corrective procedures.
- Enhances surgical training and proficiency in identifying the TM.
- Powered by deep learning, ensuring continuous improvement in accuracy.

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Published Application	20240153076	05/09/2024	2022-930

RELATED MATERIALS

- Methods and systems for identification of trabecular meshwork or other intraoccular anatomical strctures and tissue types - 05/09/2024
- Accurate Identification of the Trabecular Meshwork under Gonioscopic View in Real Time Using Deep Learning - 11/16/2021

UCI Beall Applied Innovation

5270 California Avenue / Irvine,CA
92697-7700 / Tel: 949.824.2683

© 2025, The Regents of the University of California
Terms of use
Privacy Notice