Glaucoma Blockbuster

Tech ID: 24232 / UC Case 2013-196-0

ABSTRACT

Glaucoma is a devastating condition that can lead to loss of sight. This is estimated to affect nearly 79.6 million people worldwide by the year 2020. While there are some treatments that help to prevent vision loss, there are no treatments to correct the condition, until now. Researchers at the University of California, Davis have determined a novel class of compounds that are effective in the treatment of glaucoma.

FULL DESCRIPTION

Glaucoma is a family of irreversible eye diseases characterized by an increase in intraocular pressure that if left untreated, can permanently damage the optic nerve and lead to blindness. It is estimated that glaucoma will affect 79.6 million people worldwide by the year 2020. The increase in intraocular pressure is due to an increased resistance to the outflow of the "aqueous humor" through the primary drain of the eye, called the "trabecular meshwork". This results in an increase in intraocular pressure, and if left untreated, can cause a gradual loss of vision, and eventually permanent blindness.

Currently, the only rigorously validated treatment for patients with glaucoma is therapeutically lowering intraocular pressure. These therapeutic agents however, simply prevent vision loss, and do not target the primary drainage pathway from the eye, and instead target a secondary outflow site to aqueous humor called the uveoscleral pathway.

Researchers at the University of California, Davis have developed a novel therapy to treat glaucoma by targeting the primary drainage pathway from the eye, the "trabecular meshwork". The novel treatment functions by modulating the stiffness of the trabecular meshwork. This treatment not only stops the progression of glaucoma, but also alleviates intraocular pressure and preserves a patient's vision.

APPLICATIONS

- Therapeutic
- Clinic
- Research

FEATURES/BENEFITS

- Increased aqueous outflow from the eye
- Lowering of intraocular pressure
- Vision preservation

PATENT STATUS

Country	Type	Number	Dated	Case
United States Of America	Issued Patent	9,920,320	03/20/2018	2013-196
United States Of America	Issued Patent	9,206,423	12/08/2015	2013-196

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OTHER INFORMATION

KEYWORDS

glaucoma, treatment, eye disease, optic nerve, therapy, trabecular meshwork, vision, ophthalmology, intraocular pressure

CATEGORIZED AS

- **Biotechnology**
  - Health
- **Medical**
  - Disease: Ophthalmology and

Optometry

▶ Therapeutics

RELATED CASES

2013-196-0

ADDITIONAL TECHNOLOGIES BY THESE INVENTORS

- ▶ Anti-microbial, Immune-modulating, Naturally-derived Adjunctive Therapies
- ▶ Novel Method for Performing Corneal Implant
- ▶ Device and Method to Assess Ocular Surface Health

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