Combination Therapy for Glaucoma

Tech ID: 33937 / UC Case 2024-966-0

BRIEF DESCRIPTION

An innovative small molecules therapy that significantly lowers intraocular pressure in glaucoma patients, offering neuroprotection and addressing trabecular meshwork fibrosis.

FULL DESCRIPTION

This technology encompasses a synergistic combination of sodium 4-phenylbutyrate (PBA) and Tauroursodeoxycholic acid (TUDCA) for the treatment of glaucoma. This approach not only lowers intraocular pressure (IOP) more effectively than current medications but also acts as a direct neuroprotectant and counters fibrosis in the trabecular meshwork (TM), potentially increasing the success rate of IOP-lowering surgeries and interventions.

SUGGESTED USES

- Primary and adjunctive therapy for all forms of glaucoma.
- Preventive treatment for high-risk individuals to protect against neuronal loss.
- Complementary therapy to enhance the success rate of IOP-lowering surgeries and devices.

ADVANTAGES

- Significantly lowers IOP by up to 40%, outperforming current glaucoma drugs.
- Reduces IOP by targeting trabecular meshwork pathology in glaucoma.
- Offers direct neuroprotection to prevent neuronal loss associated with glaucoma.
- Addresses and potentially reverses trabecular meshwork fibrosis, a common cause of surgical failure in glaucoma treatment.
- Can be used alone or in conjunction with existing IOP-lowering medications, offering a versatile treatment option.
- Based on FDA-approved molecules for other conditions, potentially easing the regulatory pathway for glaucoma treatment.
- Excellent proof-of-concept data in preclinical mouse and human models of glaucoma.

PATENT STATUS

Patent Pending

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OTHER INFORMATION

KEYWORDS

trabecular meshwork, small molecule, glaucoma

CATEGORIZED AS

- **Medical**
  - Disease: Ophthalmology and Optometry
  - Therapeutics

RELATED CASES

2024-966-0

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