



Generic Drug to Treat and Prevent Macular Degenerative Diseases

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method to treat acquired and inherited retinal diseases using acid sphingomyelinase inhibitors.

Overview

More than 30 million people suffer from age-related macular degeneration (AMD), the most common cause of permanent vision loss among older adults. Few treatment options are available for AMD, or for juvenile-onset macular degenerations like Stargardt's disease, which affects one in 8,000 children.

Current clinical trials for AMD and Stargardt's disease focus on injecting stem cells or antibodies into the eye. Such injections carry many risks, including damage to the eye. It would be highly advantageous to develop a safe drug that can be taken orally or applied topically.

The Invention

UW-Madison researchers have identified a new treatment option for a number of macular degenerative diseases including AMD, Stargardt's disease and juvenile macular dystrophy.

The researchers found that a class of compounds called acid sphingomyelinase inhibitors can be used to fight retinal disorders associated with abnormal accumulations of lipofuscin (a cellular waste product), cholesterol or increased inflammation. One such inhibitor, generic name desipramine, is currently sold on the market as an antidepressant. Other acid sphingomyelinase inhibitors also may be suitable.

Applications

- Treating and preventing age-related macular degeneration; inherited retinal diseases (e.g., Stargardt's disease, Best vitelliform dystrophy, Batten's disease)

Key Benefits

- Desipramine is FDA approved and considered safe.
- Could be administered topically (eye drop)
- Suitable for any age/gender

Stage of Development

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Tech Fields

- [Therapeutics & Vaccines : Ocular](#)

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