

Technology Offer CSIC/CV/007

# Novel pharmacological compounds for the treatment and prevention of cataracts



New family of molecules derived from Isoquercetin for the treatment and/or prevention of inflammatory and degenerative eye diseases.

#### **Intellectual Property**

Priority patent application filed

# Stage of development

Preclinical efficacy in vitro

#### Intended Collaboration

Licensing and/or codevelopment

#### Contact

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# Market need

Cataracts are one of the leading causes of blindness worldwide, and their prevalence is increasing. They occur due to clouding of the lens. Currently, there is no approved medication that can prevent or delay cataract formation. The only effective treatment is surgical extraction of the lens and replacement with an artificial lens. This surgery imposes a significant economic and social burden on any health system. There is a need for drugs to prevent and treat this condition.

## → Proposed solution

New molecules derived from isoquercetin have been developed. These compounds exhibit a significant protective effect by reducing levels of ROS (Reactive Oxygen Species) and, consequently, cell death due to oxidative stress that occurs during the formation and progression of cataracts. The new isoquercetin-derived molecules prevent corneal opacity by delaying the onset and progression of this condition.

### **Competitive advantages**

- Novel therapy to delay the onset or progression of cataracts.
- Useful for the treatment of the anterior chamber of the eyeball, the lens, the retina and the optic nerve.
- Improved bioavailability compared to isoquercetin.