

# DRUG4SIGHT: Light-regulated drugs to restore sight

## Challenge

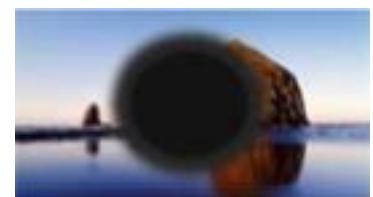
In retinal degenerative diseases like Retinitis Pigmentosa, photoreceptor cells are progressively lost, leading to visual impairment with very limited treatment options. However, the inner retinal neural circuitry persists, and the remaining neurons can be sensitised using drugs that target neuronal proteins.



Normal vision

## Market

Retinitis Pigmentosa is a genetic rare disease, and it is estimated to affect around **1.5 M people** worldwide, where symptoms are usually present from childhood. It is forecasted that the **sales** of Retinitis Pigmentosa products will **reach up to \$2.3B** by 2030.



Age-related macular degeneration

There is a lack of new pipeline products and current options including gene therapies are very expensive, invasive, and offer low efficacy and photosensitivity.



Retinitis pigmentosa

## Asset

As the inner retinal neural circuitry is not degenerated, **neurons can be activated using small-molecules**, that target specific neuronal proteins.

Dr. Pau Gorostiza discovered together with his team a series of **light-responsive small molecules** have been developed to **restore sight**, allowing functional restoration of visually guided behavior. This is achieved by mimicking the rod and cone function with the light activable compounds.

Our topical administration could disturb the market with **reduced costs, user-friendly application, and shorter regulatory pathway**.

## Uses

- ❖ Retinitis pigmentosa
- ❖ Age-related macular degeneration
- ❖ Sight improvement in healthy population

## Team

Pau Gorostiza - Scientific Leader

Asli Raman - Tech Transfer Manager

Eduardo Salas - Head of Tech Transfer

## Stage of Development

In vivo efficacy studies with zebrafish and mice completed with positive results  
Preclinical studies ongoing

## Regulatory Path

Rx

## Intellectual Property Status

EP233824945

## Exploitation Plan

Licensing

Open to technical co-development or investment for preclinical phase completion

## Contact

techtransfer@ibecbarcelona.eu