



DRUG4SIGHT: LIGHT-REGULATED DRUGS TO RESTORE SIGHT



CHALLENGE

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



MARKET

Retinitis Pigmentosa is a rare genetic disease that affects an estimated 1.5 million people worldwide, with symptoms usually appearing in childhood. Sales of retinitis pigmentosa products are forecast to reach up to USD 2.3 billion by 2030.

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



ASSET

Because the neural circuitry of the inner retina is not degenerated, neurons can be activated using small molecules that target specific neuronal proteins.

Dr Pau Gorostiza and his team have developed a series of light-responsive small molecules that restore vision and allow functional restoration of visually guided behaviour. This is achieved by mimicking the rod and cone function with the light-activated compounds.

Our topical delivery could disrupt the market with reduced cost, user-friendly application and a shorter regulatory pathway.

ASSET VALUE

- Achieving functional restoration of visually guided behaviour in small animals.
- Topically delivered.
- Highly selective target, strategically positioned "upstream" in the retinal signalling pathway .
- Retinitis Pigmentosa is a rare disease and will allow for a simpler and faster safety assessment by the European Medicine Agency than is usually the case for systemic drugs.
- This product is being developed in collaboration with FARPE and ONCE, the two largest patient associations in SPAIN.



Team

Pau Gorostiza - Scientific Leader
Asli Raman - Tech Transfer Manager
Eduardo Salas - Head of Tech Transfer

Stage of Development

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

Exploitation Plan

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

Intellectual Property Status

Priority patent filed 26/3/2023

Regulatory Path

Rx

USES

- Retinitis Pigmentosa.
- Age-related macular degeneration.
- Sight improvement in healthy population.