

ORASI: Optogenetic Approach in Visual Rehabilitation

ADRESSED PATHOLOGY:

Ophthalmology / Retinitis pigmentosa

GENERAL OBJECTIVE:

ORASI's objective is to demonstrate that optogenetic variants of Channelrhodopsin-2 (ChR2) such as Calcium translocating Channelrhodopsin (CatCh) and the red shifted Chrimson ChR2, can have profound implications for patients suffering from visual disorders such as retinitis pigmentosa. Using the RD10 animal model that has lost the photoreceptor layer, it will be validated that the targeted expression of these optogenetic channels in the remaining intact retinal layers can restore visual activity and behavior.

PARTICIPANTS:

Lawrence Humphreys/Eduardo Fernández, UMH
Rosa Villa, CNM

CLINICAL/EXTERNAL GROUPS:

Arantxa Alfaro, *H. de Vega Baja*
Jordi Monés, *Centro Médico Teknon*
José Manuel Ferrández, *U.P.Cartagena*