

Expression of Interest



Contact Person/Scientist in Charge

- **Name and surname:** David Piñero LLorens
- **Email:** david.pinyero@ua.es

Universidad de Alicante

Department / Institute / Centre

- **Name:** Universidad de Alicante
- **Address:** Campus de San Vicente del Raspeig
- **Province:** Alicante

Research Area

- Life Sciences (LIF)
- Physics (PHY)

Brief description of the institution:

The University of Alicante (UA) was created in 1979. Today it educates and trains more than 36.000 students -2.500 of them are international students - and offers more than 80 undergraduate and 96 postgraduate programmes: consequently it is proportionally one of the fastest growing universities in Spain. The UA houses 227 research groups in Social and Legal Sciences, Experimental Sciences, Technological Sciences, Human Sciences, Education and Health Sciences and 15 Research Institutes (Water & Environment, Materials, Electrochemistry, Biodiversity, Chemical Processes and Organic Synthesis, and Modern Languages, among others). Thus, the UA employs over 2.400 researchers/ professors and has a complex management /administration structure of 1.300 people, which involves an annual budget of 175 million Euros.

UA is a young and dynamic university with vast experience in implementing EU funded projects in different programmes and areas, with presence in more than 60 countries worldwide. In the last 10 years, UA has successfully acted as coordinator of many Tempus, Alfa, Edulink projects involving Third Countries and Lifelong Learning and Framework Programme (FP, DG Research) Projects. Moreover, the participation in FP has been increasing in the last years, taking part in 25 5th FP, 26 6th FP, 45 7th FP projects (13 of them coordinated by UA), and 6 in H2020.

It is worth underline the big effort performed by UA in order to meet the commitment with the principles set out in the European Charter for Researchers and in the Code of Conduct for the Recruitment of Researcher

Brief description of the Centre/Research Group (including URL if applicable):

Optics and Visual Perception Group is composed of teachers and researcher of the [Department of Optics, Pharmacology and Anatomy](#) at the [University of Alicante](#) and the [Optical Department](#) of the [University of València](#).

The group is dedicated to research in the fields of Visual Optics and Visual Perception.

Project description:

The tasks will be developed within the project INTEGROPTOM. The main objective of this project is to demonstrate that the integration of advances in Optics, Optometry and Visual Perception allows an efficient development of diagnostic tools, methods of refractive correction, and visual rehabilitation techniques with direct application in the clinical setting for the optimization of the vision care protocols. For such purpose, seven work packages have been defined, that are the following:

- 1.- Study of the optical and mechanical properties of the cornea and their use as a diagnostic tool
- 2.- Development and validation of multidiagnostic platforms for the evaluation of the eye
- 3.- Study and optimization of intraocular lens optics
- 4.- Study and optimization of contact lens optics
- 5.- Design and evaluation of new approaches for the correction of refractive errors by means of the modification of the geometry of the anterior corneal surface
- 6.- Development of new diagnostic and treatment approaches for visual rehabilitation
- 7.- Development of new diagnostic tests based on visual perception

The result of the work in these packages during 5 years will lead to an optimization of the clinical procedures in vision care, the increase of the profitability of the vision care services, creation of clinical guides based on scientific evidence, new developments optimizing the refractive correction and visual rehabilitation procedures, development of new diagnostic criteria, and improvement of the visual care of our patients and, therefore, of their quality of life.

Applications

CV and motivation letter

