



## **Elena Vecino**

Professor of Cell Biology, University of the Basque Country (Spain)

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### **Education:**

- BSc and PhD in Biology, University of Salamanca, Spain (1986, 1989)
- Second PhD in Vision Sciences (1996), University of Lund, Sweden
- BSc Fine Arts, University of Basque Country (2014), Spain
- Post. Doc. (1990-1995) New York Medical College, University of Davis (USA), University of Lund

### **Professional Experience:**

- Leads a multidisciplinary group in experimental Neuro-Ophtho-Biology in the Basque Country University UPV/EHU since 1995 ([www.ehu.eus/gobe](http://www.ehu.eus/gobe))
- Visiting Prof. University of Oxford, Strasbourg, Paris, UPEN (USA), Cambridge.
- Fellow of Clare Hall, Cambridge, UK and Life Member since 2012
- Visiting Prof. Initiative Excellence, University of Bordeaux, France (2020-2023)

### **Research Contributions:**

- Directed 16 PhD Theses and over 50 Master's Theses
- 131 publications (113 in JCR); 5000 citations. h-index: 35
- Editorial Board of the Journal of highest impact factor in Ophthalmology PRER
- More than 150 conferences and international lectures
- Evaluator of European Grants and member of national evaluating agencies of Spain (ANEP; ANECA), UK (MRC, UKRI), France (ANR), Argentina (FONCyT), and Portugal (FCT).

### **Grants and Collaborations:**

- Held over 100 national and international grants since 1992, including two European grants.
- Collaborations with researchers from Universities of Cambridge, Oxford, Paris, Strasbourg, Bordeaux, Coimbra, München, NY Medical College, UC Davis, UPenn.
- Collaborated with pharmaceutical companies on the improvement of treatments for Glaucoma (RETOS-Mineco and Sylentis).

### **Current Work:**

Holding grants from pharmaceutical and biotech companies investigating neuroprotective treatments for glaucoma and identification of tear biomarkers to diagnose early Parkinson disease.

### **Achievements and Awards:**

Received prizes from International organizations including the American Glaucoma Foundation (2004), Fundaluce (2004) the First International Prize of ONCE Foundation (2005), and the Alcon Foundation Award for Excellence in Glaucoma Research (2015).

### **Research Impact:**

- Participation on preclinical trials, including the first and unique existing gene therapy in humans for RetinosisPigmentaria (Collaboration with Prof. Gustavo Aguirre, UPENN), funded by Fundaluce and ONCE Foundation.
- Developed a pig model for glaucoma (Exp. Eye. Res. 2005), funded by The Glaucoma Foundation, contributing significantly to glaucoma research.
- Developed several animal models of experimental glaucoma used globally for research (beads model of glaucoma Exp. Eye. Res 2006).
- Investigated neuroprotection strategies in glaucoma, collaborating with pharmaceutical companies to enhance the duration of the glaucoma treatment with iRNA.
- Pioneered the study of Müller glial cells' role in glaucoma, potentially revolutionizing future treatments (Cell & Bioscience 2024).

### **Teaching experience:**

- Thirty-five (35) years of teaching at the University of Salamanca and Basque Country:Teaching in Grades of: Biology, Biochemistry, Physiotherapy, Biomedical Engineering, Dentistry, and Medicine. Subjects covered were: Cell Biology, Histology, Developmental Biology, and Methods in Cell Biology.
- Lecturer in Master's and Doctoral courses at various Universities in Spain (Salamanca, Valladolid, Sevilla, Barcelona, Madrid) and Europe like Lund, Göttingen and Coimbra.

### **Additional Interests:**

- Bachelor in Fine Arts(2014). More than 50 Lectures on art and science at highlighting the one at the Guggenheim Museum of Bilbao (Arte, Ciencia y sinestesia) 2020 with more than 16K visualizations.
- Held 7 national and international exhibitions on scientific photography accessible to low vision and blind persons “the eye of the whale” with more than 40.000 visitors in Museums of Natural Sciences, Photography and art galleriesof Spain, Portugal, France and UK.
- Awarded for scientific photography by organizations including the Spanish Ophthalmology Society (SEO), Neurosciences Society (SENC), Scientific American “Whale rainbow retina”, and FOTCIENCIA from the Spanish Foundation for Science.
- She has produced three animation videos related to her research on “the eye of the whale”and the accessibility exhibitions to low vision and blind persons. Free access in YouTube “ciencia y ballenas” with more than 15K visualizations until now.

### **Summary:**

Art, Science, and Education are the pillars of Elena Vecino's career, exemplified through her extensive contributions to cell biology research, particularly in the field of neuro-ophthalmology. With a diverse background spanning both scientificand artistic endeavors, Vecino continues to make significant strides in understanding ocular pathologies and exploring innovative treatments.