

Date of the CVA	13/02/2021
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Section A. PERSONAL DATA

Name and Surname	Elena Vecino Cordero		
DNI	11934338Y	Age	57
Researcher's identification number	Researcher ID		
	Scopus Author ID	https://www.scopus.com/authid/detail.uri?authorId=55	
	ORCID	0000-0002-1672-5132	

* Obligatorio

A.1. Current professional situation

Institution	Universidad del País Vasco		
Dpt. / Centre	Biología Celular e Histología / Facultad de Medicina y Odontología		
Address	Facultad de Medicina, Departamento de Biología Celular e Histología, 48940, Leioa		
Phone	(+34) 680543873	Email	elena.vecino@ehu.es
Professional category	Catedrática de Universidad	Start date	2004
Keywords			

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
Licenciada en Bellas Artes	Univesidad del País Vasco	2014
PhD	Universidad de Lund (Suecia)	1996
Doctora en Biología	Universidad de Salamanca	1989
Licenciado en Biología	Universidad de Salamanca	1986

A.3. General quality indicators of scientific production

Quality indices:

- Scopus: 123 publications (101 in JCR); 2305 citations; h-index: 27

ORCID 0000-0002-1672-5132

<https://www.ncbi.nlm.nih.gov/pubmed/?term=vecino> +e

www.ehu.eus/gobe

- 5 research six-years (30 years) positive evaluation from the national agency of research CNAI
- 16 PhD supervision plus 2 under supervision
- 30 Master thesis and bachelor thesis supervised
- 6 Post-doctoral students supervision
- 225 communications in Research International Meetings
- 80 invited conferences
- Principal Investigator of de 70 National research projects 2 Europeans and 8 International
- 7 years in research in international labs
- In the last 10 years administrated 190 months of research contracts.
- Life Member of Clare Hall College Cambridge (UK) 2012-present
- Professor at the Bordeaux University from The Initiative of Excellence 2020

Advisory committee:

- Member of the Editorial Board the journal Translational Vision Science and Technology (TVST) 2019- present
- Member of the Committee of Evaluation of Transference (ANECA) 2019- present
- Member of the European Evaluating Committee of the V Frame Program of the EU (2008).
- Member of the Spanish Agency for Evaluation and Qualify Professors for the Spanish Universities, Health area (ANECA) 2008-2010. Reviewer until present.
- Reviewer of the National Agency of Research Grants Evaluation (ANEP) 1992- present

- Reviewer of the National Committee grants from National Health Research (FISS) 1995-present.
- Reviewer of the Portuguese Agency for Science. 2015-present.

Main Awards and Honors:

2004: First Prize of the International Research Award for Research in New Technologies and Biomedicine and New technologies ONCE (Spanish Foundation for Blind Persons)

2004: The Glaucoma Foundation (TGF) Grant to Elena Vecino) (USA)

2005: First Price of the Research grants for researching in Retinosis Pigmentaria FUNDALUCE (Foundation Fighting Blindness).

2011: Price to the best basic research in Ophthalmology Society of Ophthalmology of the North

2015: Alcon Foundation price to the Excellence Group in Glaucoma Research

2020: Scientific American Journal best scientific photography

Section B. SUMMARY OF THE CURRICULUM

Elena Vecino (ORCID ID: 0000-0002-1672-5132) obtained her BSc and PhD in Biology from the University of Salamanca (1986 and 1989, respectively), and a second PhD in the field of vision from the University of Lund (Sweden, 1996). She has collaborated with several European and American Universities. She became a Full Professor of Cell Biology at the University of Basque Country in 2004, where she leads a multidisciplinary group in experimental Neuro-Ophthalmo-Biology (www.ehu.es/GOBE), and from 2012, she is a Fellow of Clare Hall, Cambridge (UK). She has published more than 120 peer reviewed papers, directed 15 PhD theses, half of whom were Ophthalmologists, and more than 20 Master's Thesis. Is referee of 10 international research journals and member of the editorial board of the Translational Journal (TVST). She has been Evaluator of European Grants and member of national evaluating agencies (ANEP; ANECA). She has held more than 80 national and international grants, two of them European, and she has collaborated with several pharmaceutical companies in developing/improving treatments for Glaucoma. The main interests of her research are retinal neuroprotection and the identification of biomarkers in the tear to characterize ocular pathologies. She has developed several animal models of glaucoma that are now used globally to study this pathology. She has been elected by the Univ. of Bordeaux from the Initiative of Excellence (2020) and by the Univ. of Cambridge (UK) Clare Hall College Brain Repair Centre to study the regeneration of the visual nervous system (2012). She has participated in several preclinical trials, including that to ratify the first gene therapy for Retinosis Pigmentaria (in collaboration with Dr Aguirre at U. Penn, USA), and her research has received several prizes from International organizations, including the American Glaucoma Foundation (2004), the First International Prize of ONCE Foundation (2005) and the Alcon Foundation (Prize for Excellence in Glaucoma Research, 2015). She currently holds several grants from pharmaceutical and biotech companies to identify tear biomarkers for neurological and eye diseases, that are at present in Phase III clinical trial. In addition, Elena Vecino is Bachelor of Fine Arts (2014) with the specialization in sculpture. She has lectured on art and science at the Guggenheim Museum of Bilbao, and held several exhibitions on scientific photography and win several Art prizes like from: the Spanish Ophthalmology Society (SEO) and Neurosciences Society (SENC) and The Scientific American Journal.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores

- 1 Ruzafa, Noelia; Pereiro, Xandra; Fonollosa, Alex; Araiz, Javier; Acera, Arantxa; Vecino, Elena. 2021. Plasma Rich in Growth Factors (PRGF) increases the number of Retinal Müller glia in Culture but not the survival of Retinal Neurons *Frontiers Pharmacology*. Accepted.

- 2 Ruzafa, Noelia; Pereiro, Xandra; Fonollosa, Alex; Araiz, Javier; Acera, Arantxa; Vecino, Elena. 2021. The Effect of Plasma Rich in Growth Factors (PRGF) on Microglial Migration, Macroglial Gliosis and Proliferation, and Neuronal Survival *Frontiers Pharmacology*. Accepted.
- 3 Pereiro, Xandra; Fernández, Roberto; Barreda-Gómez, Gabriel; Ruzafa, Noelia; Acera, Arantxa; Araiz, Javier; Astigarraga, Egoitz; Vecino, Elena. 2020. Comparative lipidomic analysis of mammalian retinal ganglion cells and Müller glia in situ and in vitro using High-Resolution Imaging Mass Spectrometry *Scientific Reports*. 10: 20053.
- 4 Pereiro, Xandra; Ruzafa, Noelia; Urcola, Haritz; Sharma, Sansar C.; Vecino, Elena. 2020. Differential Distribution of RBPMS in Pig, Rat, and Human Retina after Damage. *International Journal of Molecular Sciences*. 21(23):9330.
- 5 Pereiro, Xandra; Miltner, Adam M; La Torre, Anna; Vecino, Elena. 2020. Effects of Adult Müller Cells and Their Conditioned Media on the Survival of Stem Cell-Derived Retinal Ganglion Cells *Cells*. 9(8):1759.
- 6 Boia, Raquel; Ruzafa, Noelia; Aires, Ines Dinis; Pereiro, Xandra; Ambrosio, Antonio Francisco; Vecino, Elena; Santiago, Ana Raquel. 2020. Neuroprotective Strategies for Retinal Ganglion Cell Degeneration: Current Status and Challenges Ahead. *International Journal of Molecular Sciences*. 21-7.
- 7 Pereiro, Xandra; Ruzafa, Noelia; Acera, Arantxa; Urcola, Aritz; Vecino, Elena. 2020. Optimization of a Method to Isolate and Culture Adult porcine, rats and mice Müller Glia in order to Study Retinal Diseases *Frontiers of Cellular Neuroscience*. 14-7.
- 8 Rosignol, Ines; Villarejo-Zori, Beatriz; Teresak, Petra; et al; Boya, Patricia. 2020. The mito-QC Reporter for Quantitative Mitophagy Assessment in Primary Retinal Ganglion Cells and Experimental Glaucoma Models. *International Journal of Molecular Sciences*. 21-5.
- 9 Acera, Arantxa; Pereiro, Xandra; Abad-García, Beatriz; et al; Vecino, Elena. 2019. A simple and reproducible method for quantification of human tear lipids with ultrahigh-performance liquid chromatography-mass spectrometry. *Molecular vision*. 25, pp.934-948.
- 10 Fonollosa, Alex; Valcarcel, Maria; Clarisa, Salado; Pereiro, Xandra; Vecino, Elena. 2019. Effect of somatostatin on human retinal pigment epithelial cells permeability. *Experimental Eye Research*. 184, pp.15-23.
- 11 Noelia Ruzafa; Xandra Pereiro; MF Lepper; SM Haurck; Elena Vecino. 2018. A proteomics approach to identify candidate proteins secreted by Müller glía that protect ganglion cells in the retina. *Proteomics*. 18-11.
- 12 Pereiro, Xandra; Ruzafa, Noelia; Acera, Arantxa; Fonollosa, Alex; Rodriguez, F. David; Vecino, Elena. 2018. Dexamethasone protects retinal ganglion cells but not Müller glia against hyperglycemia in vitro. *PLoS One*. 13-11.
- 13 Vecino, Elena; Urcola, Haritz; Bayon, Alejandro; Sharma, Sansar C. 2018. Ocular Hypertension/Glaucoma in Minipigs: Episcleral Veins Cauterization and Microbead Occlusion Methods. *Methods in molecular biology (Clifton, N.J.)*. 1695, pp.41-48. ISSN 1940-6029.
- 14 Ruzafa, Noelia; Pereiro, Xandra; Aspichueta, Patricia; Araiz, Javier; Vecino, Elena. 2018. The Retina of Osteopontin deficient Mice in Aging *Molecular Neurobiology*. HUMANA PRESS INC. 55-1, pp.213-221. ISSN 1559-1182.
- 15 Cabrerizo, Javier; Urcola, Javier Aritz; Vecino, Elena; Melles, Gerrit. 2017. Changes in lipidomic profile of aqueous humour in Fuchs endothelial dystrophy *Acta Ophthalmologica*. WILEY. 95-7, pp.727-732. ISSN 1755-3768.
- 16 Cabrerizo, Javier; Urcola, Javier A.; Vecino, Elena. 2017. Changes in the Lipidomic Profile of Aqueous Humor in Open-Angle Glaucoma *Journal of Glaucoma*. Lippincott Williams & Wilkins. 26-4, pp.349-355. ISSN 1536-481X.
- 17 Ruzafa, Noelia; Rey-Santano, Carmen; Mielgo, Victoria; Pereiro, Xandra; Vecino, Elena. 2017. Effect of hypoxia on the retina and superior colliculus of neonatal pigs *PLOS ONE*. Public Library Science. 12-4. ISSN 1932-6203.
- 18 E. Vecino; H. Urcola; A. Bayon; S.C. Sharma. 2017. Ocular Hypertension/Glaucoma in Minipig: Episcleral Vein Cauterization and Microbead Occlusion Methods. (Capítulo de Libro) *Methods in Molecular Biology*. Springer Series. ISSN 1064-3745.

- 19 Vecino, Elena; David Rodriguez, F.; Ruzafa, Noelia; Pereiro, Xandra; Sharma, Sansar C.2016. Glia-neuron interactions in the mammalian retina Progress in Retinal and Eye Research. 51, pp.1-40. ISSN 1350-9462.

C.2. Participation in R&D and Innovation projects

- 1 Tear Lipidomics in dry eye disease: potential diagnostic and therapeutic biomarkers (MINECO PID 2019-111139RB-I00). 2020-2023. 142.000 €.
- 2 Novel biomaterials in regenerative ophthalmic medicine. (ELKARTEK). 2019-2021. 160.000 €.
- 3 Grupos de investigación de la Universidad del País Vasco (Research groups of the University of the Basque Country) Elena Vecino. (Universidad del País Vasco (UPV/EHU) (GIU 2018/50)). 2019-2020. 57.217 €.
- 4 Proyecto Investigación en Materiales Biofuncionales para dispositivos del sector biomédico (IMABI) (Hazitek). 2019-2020.
- 5 Análisis lipídico de la retina in vivo e in vitro (Lipid analysis of the retina in vivo and in vitro) Elena Vecino. (Gobierno Vasco, acciones Universidad-Empresa (PUE_2018_1_0004)). 2018-2020. 31.789 €.
- 6 Desarrollo de tratamientos personalizados para el glaucoma. Énfasis en poblaciones infantiles y de edad avanzada. GLAUKUS (Development of personalized treatments for glaucoma. Emphasis on children and elderly populations. GLAUKUS) Elena Vecino. (RETOS- MINECO Fondos FEDER (RTC-2016-4823-1)). 2016-2018. 182.000 €.
- 7 Ultrastructural and Molecular Study of Epiretinal Membranes (Estudio Ultraestructural y Molecular de las Membranas Epiretinales) (PIBA 2020-1-0026). From 2020. 50.000 €.

C.3. Participation in R&D and Innovation contracts

C.4. Patents

- 1 Elena Vecino. P16051ES00. Método para extraer lípidos de lágrima Spain. 24/10/2018. Universidad del País Vasco.
- 2 Elena Vecino. 9602680. Modelo de Utilidad Cámara de Humedad Spain. 16/10/1997. Universidad del País Vasco.