

Fecha del CVA	23/04/2022
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Parte A. DATOS PERSONALES

Nombre	Elena		
Apellidos	Vecino Cordero		
Sexo	Mujer	Fecha de Nacimiento	30/10/1963
DNI/NIE/Pasaporte	[REDACTED]		
URL Web			
Dirección Email	elena.vecino@ehu.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-1672-5132		

A.1. Situación profesional actual

Puesto	Catedrática de Universidad		
Fecha inicio	2004		
Organismo / Institución	Universidad del País Vasco		
Departamento / Centro	Biología Celular e Histología / Facultad de Medicina y Odontología		
País		Teléfono	
Palabras clave			

A.2. Situación profesional anterior (incluye interrupciones en la carrera investigadora - indicar meses totales, según texto convocatoria-)

Periodo	Puesto / Institución / País
2020 -	Professor Id Excellence / University of Bordeaux, Neurocentrum Magendie
2012 -	Life Member / Clare Hall College Cambridge (UK)
2012 -	Visiting Professor / University of Cambridge, Brain Repair Centre
2010 -	Visiting Professor / University of Pennsylvania
1998 -	Visiting Professor / University of Strasbourg
1997 -	Visiting Professor / University of Oxford
1996 -	Visiting Professor / New York Medical College
1992 -	Post-doctoral fellow / University of Davis
1990 -	Post-doctoral fellow / University of Lund
1989 -	Pre-doctoral student / New York Medical College
1988 -	Pre-doctoral Student / University of Lund

A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
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

Parte B. RESUMEN DEL CV

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-Ophtho-mo-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 (<https://www.youtube.com/watch?v=-Jc7DXOeKlc>) 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.

Parte C. LISTADO DE APORTACIONES MÁS RELEVANTES

C.1. Publicaciones más importantes en libros y revistas con “peer review” y conferencias

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores. Si aplica, indique el número de citas

- 1 Pereiro, Xandra; Beriain, Sandra; Rodríguez, Lara; Roiz-Valle, David; Ruzafa, Noelia; Vecino, Elena. 2022. Characteristics of whale Müller glia in primary and immortalized cultures *Frontiers in Neuroscience*.
- 2 Ruzafa, Noelia; Pereiro, Xandra; Vecino, Elena. 2022. Immunohistochemical Characterization of the Whale Retina *Frontiers in Neuroanatomy*.
- 3 Acera, Arantxa; Gómez-Esteban, Juan Carlos; Murueta-Goyena, Ane; et al; Vecino, Elena. 2022. Potential Tear Biomarkers for the Diagnosis of Parkinson’s Disease— A Pilot Study. *Proteomes*.
- 4 de la Fuente, Miguel; Lombardero, Laura; Gómez-González, Alfonso; et al; Barreda-Gómez, Gabriel. 2021. Enzyme Therapy: Current Challenges and Future Perspectives. *International Journal of Molecular Sciences*. 22(17):9181.
- 5 Blanco-Urrejola, Maite; Gaminde-Blasco, Adhara; Gamarra, María; de la Cruz, Aida; Vecino, Elena; Alberdi, Elena; Baleriola, Jimena. 2021. RNA Localization and Local Translation in Glia in Neurological and Neurodegenerative Diseases: Lessons from Neurons. *Cells*. 10(3):632.
- 6 Lafuente, Carmen; Vecino, Elena. 2021. La divulgación científica en una exposición fotográfica sobre el estudio anatómico del ojo de la ballena, adaptada pedagógicamente para personas con discapacidad visual *Arte, Individuo y Sociedad*. 33(4), pp.1449-1471. ISSN 1131-5598.
- 7 Vecino, Elena; Rodríguez-Sánchez, Lara. 2021. Naturaleza anatómica del canal de Schlemm: ¿vascular, linfática o mixta? *Revista Española de Glaucoma e Hipertensión Ocular*. 11(3):8, pp.17-23.
- 8 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*. 12:606275.

- 9 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*. 12:606232.
- 10 Vecino, Elena; Ruzafa, Noelia; Pereiro, Xandra; Zulueta, Ane; Sarmiento, Alfredo; Diez, Alejandro. 2021. The extracellular matrix of the human and whale cornea and sclera: Implications in glaucoma and other pathologies *Extracellular Matrix - Developments and Therapeutics*. Rama Sashank Madhurapantula. InTech.
- 11 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.
- 12 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.
- 13 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.
- 14 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.
- 15 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.
- 16 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.

C.2. Congresos

- 1 Xandra Pereiro; Sandra Beriain; Lara Rodríguez; Noelia Ruzafa; David Roiz-Valle; Jose María P Freije; Elena Vecino. Characterization of Primary and Immortalized Whale Müller Glial Cells. 19th National Meeting of the Spanish Society of Neuroscience. 2021. España. Participativo - Póster.
- 2 Xandra Pereiro; Noelia Ruzafa; Sandra Beriain; Elena Vecino. Effect of whale Müller glia in the survival and neurite growth of RGCs in vitro.. 19th National Meeting of the Spanish Society of Neuroscience. 2021. España. Participativo - Póster.
- 3 Noelia Ruzafa; Xandra Pereiro; Sandra Beriain; Elena Vecino. Morphological Characterization of the Whale Retina. 19th National Meeting of the Spanish Society of Neuroscience. 2021. España. Participativo - Póster.
- 4 Xandra Pereiro; Sandra Beriain; Lara Rodríguez; Noelia Ruzafa; David Roiz-Valle; Jose María P Freije; Elena Vecino. Characterization of Primary and Immortalized Whale Müller Glial Cells. The 2021 EVER (European Association for Vision and Eye Research) Festival. 2021. Participativo - Póster.
- 5 Xandra Pereiro; Noelia Ruzafa; Sandra Beriain; Elena Vecino. Effect of whale Müller glia in the survival and neurite growth of RGCs in vitro.. The 2021 EVER (European Association for Vision and Eye Research) Festival. 2021. Participativo - Póster.
- 6 Noelia Ruzafa; Xandra Pereiro; Sandra Beriain; Elena Vecino. Morphological Characterization of the Whale Retina. The 2021 EVER (European Association for Vision and Eye Research) Festival. 2021. Participativo - Póster.
- 7 Elena Vecino. Encephalon. 5th bienal Neuroscience Symposium (Göttingen Univ.). 2019. Alemania. Participativo - Ponencia invitada/ Keynote.
- 8 Elena Vecino. Actualización en oftalmología. Las 12 charlas del 12 (Edición 11). Hospital 12 de Octubre. 2019. España. Participativo - Ponencia invitada/ Keynote.
- 9 Elena Vecino. Müller glia as Neuroprotectors of the retina. Congreso internacional European Association for Vision and Eye Research (EVER). 2019. Francia. Participativo - Ponencia invitada/ Keynote.

- 10 Elena Vecino; Iñaki Rodriguez; Xandra Pereiro; Sandra Beriain; Nerea Ayucar; Noelia Ruzafa. Estudio De Los Receptores ACE-2 Del SARS-CoV 2 En La Conjuntiva Ocular Humana. 2º Congreso Nacional Multidisciplinar COVID19 De las Sociedades Científicas de España. 2019. España. Participativo - Ponencia invitada/ Keynote.

C.3. Proyectos o líneas de investigación

- 1 **Proyecto.** Tear Lipidomics in dry eye disease: potential diagnostic and therapeutic biomarkers. Elena Vecino. (MINECOR PID2019-111139RB-I00). 2020-2024. 145.200 €.
- 2 **Proyecto.** Biomarkers of neurodegenerative diseases in tear, towards the development of a system. Elena Vecino. (ELKARTEK KK- 2021/00023). 2021-2023. 149.700 €.
- 3 **Proyecto.** Ultrastructural and Molecular Study of Epiretinal Membranes (Estudio Ultraestructural y Molecular de las Membranas Epirretinianas). (PIBA 2020-1-0026). 2020-2023. 50.000 €.
- 4 **Proyecto.** Retinal read-out of brain dysfunction in Parkinson's Disease: search for biomarkers in the presymptomatic phase. Cristina Miguez. (Proyectos colaborativos UPV/EHU COLAB20/07). 2021-2022. 25.920 €.
- 5 **Proyecto.** Scientific photography exhibition on the eye of the whale, the largest mammal on earth, adapted to the blind and people with low vision. Elena Vecino. (FECYT FCT-19-14532). 2020-2021. 18.000 €.
- 6 **Proyecto.** Novel biomaterials in regenerative ophthalmic medicine.. Elena Vecino. (ELKARTEK KK- 2019/00086). 2019-2021. 160.000 €.
- 7 **Proyecto.** Research on the neuroprotection of the retina and molecular biomarkers in ocular surface pathologies. Elena Vecino. (Grupos de investigación de la Universidad del País Vasco (UPV/EHU) GIU 2018/150). 2019-2021. 57.307 €.
- 8 **Proyecto.** Proyecto IMABI Investigación en Materiales Biofuncionales para dispositivos del sector biomédico. Elena Vecino. (Hazitek ZE-2019/00012). 2019-2020. 7.000 €.
- 9 **Contrato.** Extracción de los factores de crecimiento de la membrana amniótica de vaca AJL Ophthalmic, S. A.. Desde 2021. 10.000 €.
- 10 **Contrato.** Tears biomarkers-Hazitek-IMG Pharma IMG Pharma. 2020-01/01/2021. 15.000 €.

C.4. Actividades de transferencia de tecnología/conocimiento y explotación de resultados

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