

CURRICULUM VITAE ABREVIADO (CVA)**Part A. PERSONAL INFORMATION**

First name	NEREA		
Family name	MORENO GARCÍA		
e-mail	neerea@ucm.es	URL Web	ucm.es/neuroevolab/
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-5578-192X		

(*) *Mandatory***A.1. Current position**

Position	Professor		
Initial date	01/09/2008		
Institution	School of Biological Sciences. University Complutense of Madrid		
Department/Center	Cell Biology		
Country	Spain		
Key words	Neuroanatomy, Neurobiology, Development, Evolution, EVODEVO		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2009-2010	Assistant Professor. School of Biological Sciences. UCM.
2008-2009	Assistant Professor. School of Medicine. UCM.
2006-2008	Assistant Professor. School of Sciences. University Autonoma of Madrid.
2005-2006	Postdoctoral Fellow. Dpt. Developmental Biology. Institut A. Fessard. CNRS. Paris. France.
2000-2005	Predocctoral Fellow (FPU). School of Biological Sciences. UCM.

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD Biology	University Complutense of Madrid. Spain.	2005
Licensed in Biology	University Complutense of Madrid. Spain	2000

Part B. CV SUMMARY (max. 5000 characters, including spaces)

- ✓ Number of "**sexenios**" (research 6 years periods): 4.
- ✓ **Principal Investigator** in 4 competitive projects in the last 7 years. I have participated in a total of 12 competitive research projects throughout my career.
- ✓ Number of **Doctoral Theses** (PhD) directed: 3. *Currently 3 in process.*
- ✓ Director of 9 Final Degree Projects (Bachelor in Biology, UCM), 4 Final Master Projects (Master in Neuroscience, UCM; Master in Genetics and Cell Biology; UAM-UCM).
- ✓ **Academic management:** Secretary of the Department of Cell Biology; UCM (from 01/31/2013 to 06/11/2018). Vice Dean of School of Biological Sciences (from 12.06.2018 to 12.06.2022).
- ✓ **DIRECTOR OF THE RESEARCH UCM GROUP:** *Evolution and development of the vertebrate nervous system (ucm.es/neuroevolab/).*
- ✓ **Awarded** by the "Royal Academy of Doctors". 2005 Research Prize.
- ✓ **Extraordinary Doctorate Award** Complutense University of Madrid. 2006

Since the beginning of my research career, I have focused my research on the **evolution and development of the nervous system (neuro-evo-devo)**. Specifically, during my predoctoral training I focused on the study of the organization, development and evolution of the *amygdaloid complex*, a key structure in the control of emotions and social behavior, based on its neurochemistry, hodology and genoarchitecture. This research resulted in 14 publications as first author in indexed journals (12 of them in Q1). Since then, I have continued researching, both in Spain and in my postdoctoral period in Paris (France), on brain development and



evolution, especially in the forebrain region. In particular, the first thesis (PhD) of which I was director, qualified with cum laude, focused on the analysis of the *hypothalamic region in the anamnio-amniote transition*, resulting in 6 publications in indexed journals (5 of them in Q1). In addition, during these years the animal models, as well as the experimental techniques used, have been changing giving rise to a second direction of doctoral thesis, qualified with cum laude European model, focused on the analysis of the evolutionary *expression of the transcription factors of the Pax family*. These results gave rise to 3 publications in indexed journals (all of them in Q1). The last thesis under my direction, about the *pallial region* in the anamniote-amniote transition, gave rise to 5 publications in indexed journals. It has been carried out during the last financed project in which I am principal investigator.

My current research focuses on the evolutionary analysis of the vertebrate pallial region, the histogenetic domain that gives rise to the cerebral cortex. We have recently identified the existence of different conserved pallial domains in different species of anamniotes (amphibians and fish) and have described the conserved arrangement of interneurons found in the pallium of distant evolutionary models. We have also described the presence of Cajal-retzius cells in anamniotes and pallial secondary organizers comparable to those of amniotes. We have also analyzed by scRNAseq the pallium of *Xenopus laevis*. Finally, we have demonstrated the usefulness of using MRI in non-mammalian vertebrates in evolutionary studies, providing working atlases in open access to the scientific community (this has so far generated 4 research articles in indexed journals, 2 of which also include open access atlas data.)

Part C. RELEVANT MERITS

C.1. Publications. Listed 10 articles related to the current project.

1. Jiménez, S., López, J.M., Lozano, D., Morona, R., González, A., Moreno, N. Analysis of pallial/cortical interneurons in key vertebrate models of Testudines, Anurans and Polypteriform fishes. ***Brain Structure and Function***. 2020; 225 (7), pp. 2239-2269. DOI: 10.1007/s00429-020-02123-5. Corresponding author: **CA**. Q1.
2. Jiménez, S., Moreno, N. Analysis of the Expression Pattern of Cajal Retzius Cell Markers in the *Xenopus laevis* Forebrain. ***Brain, Behavior and Evolution***. 2022; 96 (4 6), pp. 263-282. DOI: 10.1159/000519025. **CA**. Q1.
3. López, J.M., Jiménez, S., Morona, R., Lozano, D., Moreno, N. Analysis of Islet1, Nkx2.1, Pax6, and Orthopedia in the forebrain of the sturgeon *Acipenser ruthenus* identifies conserved prosomeric characteristics. ***Journal of Comparative Neurology***. 2022; 530 (5), pp. 834-855. DOI: 10.1002/cne.25249. **CA**. Q1.
4. Jiménez, S., Moreno, N. Analysis of the Pallial Amygdala in Anurans: Derivatives and Cellular Components, ***Brain Behavior and Evolution***. 2022; 97 (6), pp. 309-320. DOI: 10.1159/000525018. **CA**. Q1.
5. Jiménez, S., Moreno, N. Development of subdomains in the medial pallium of *Xenopus laevis* and *Trachemys scripta*: Insights into the anamniote-amniote transition. ***Frontiers in Neuroanatomy***. 2022; 16, art. no. 1039081, DOI: 10.3389/fnana.2022.1039081. **CA**. Q1.
6. Lozano, D., López, J.M., Jiménez, S., Morona, R., Ruíz, V., Martínez, A., Moreno, N. Expression of SATB1 and SATB2 in the brain of bony fishes: what fish reveal about evolution. ***Brain Struct Funct***. 2023; 228(3-4):921-945. doi: 10.1007/s00429-023-02632-z. **CA**. Q1.
7. Lozano, D., López, J.M Chinarro, A., Morona, R., Moreno, N. 2024. A detailed 3D MRI brain atlas of the African lungfish *Protopterus annectens*. ***Scientific Reports***. 14: 7999 (2024). **CA**. Q1.



8. Jiménez et a., Moreno, N. 2024. Comparative MRI analysis of the forebrain of three sauropsida models. **Brain Struct Funct.** 2024 Jul;229(6):1349-1364. doi: 10.1007/s00429-024-02788-2. Epub 2024 Mar 28. **CA.** Q1.
9. Jiménez S, Morona R, Ruiz-Fernández MJ, Fernández-Valle E, Castejón D, García-Real MI, González-Soriano J, Moreno N. Neuroimaging and immunofluorescence of the Pseudopus apodus brain: unraveling its structural complexity. **Brain Struct Funct.** 2025 May 28;230(5):76. doi: 10.1007/s00429-025-02940-6. **CA.** Q1.
10. Lozano D, Morona R, Chinarro A, López JM, Moreno N. Evolutionary Expression of the Orthopedia Transcription Factor in the Alar Hypothalamus: Implications for Amygdala Formation across Vertebrates. **Brain Behav Evol.** 2025 Jun 18:1-16. doi: 10.1159/000546877. **CA.** Q1.

C.2. Congress. Only are listed invited conferences from recent years.

1. **35th annual Karger Workshop. Sfn Satellite.** Evolutionary analysis of the pallial region of anurans, including the pallial amygdala. Nerea Moreno. 11/2021.
2. **XII Meeting of the Red NeuroEvoDevo – Pedro Ramón y Cajal. SENC Satellite** (Spanish Society of Neuroscience). Jiménez Sara and Moreno Nerea. 09/2021.
3. **10th European Conference on Comparative Neurobiology Congresss.** Nerea Moreno. 06/2022.
4. **19th Meeting of the Spanish Society of Neuroscience.** The evolution of the pallium in anamniotes. Nerea Moreno. 09/2022.
5. **11th IBRO World Congress of Neuroscience.** The evolution of the telencephalon in the land conquest: insights from amphibians and reptiles. Nerea Moreno. 09/2023.

C.3. Research projects.

Participant (research team) of 13 competitive projects of the Science Spanish Ministry (or equivalent), 3 of them as PI (listed below). In addition, I have been PI of two projects of non-public calls (UCM–Santander; 19/20; 20/21).

- ✓ Project title: Organización funcional y anatómica de la corteza cerebral en la evolución de los vertebrados. (PID2023-147228NB-I00). Main research names: **NEREA MORENO GARCÍA.** Funding entity / s: Ministry of Economy and Competitiveness. Start-end date: 01/09/2024 - 30/09/2027 Duration: 3 years Total amount: € 150.000.
- ✓ Project title: Origen evolutivo de la corteza cerebral de vertebrados. (PID2020-112681GB-I00). Main research names: **NEREA MORENO GARCÍA.** Funding entity / s: Ministry of Economy and Competitiveness. Start-end date: 01/09/2021 - 30/09/2024 Duration: 3 years Total amount: € 84.700.
- ✓ Project title: Processes of specification and development of genoarchitectural patterns in the prosencephalon: an evo-devo approach. (BFU2015-66041-P). Main research names: **NEREA MORENO GARCÍA.** Funding entity / s: Ministry of Economy and Competitiveness. Start-end date: 10/01/2016 - 31/12/2018 Duration: 3 years Total amount: € 142.296,0



C.4. Contracts, technological or transfer merits,

- Collaboration with Companies. Funding on 2 occasions in calls of the Santander Foundation: BANCO SANTANDER- UCM.
- "Programa Investigo", in the framework of the Recovery, Transformation and Resilience plan - 2. Funded by the European Union - NextGeneration EU. Contracting personnel 2022/2023. Victor Ruiz Jiménez.
- Research assistants CAM program. Order 2839/2021 aids for the promotion of youth employment and implementation of the youth guarantee in R+D+I. Contracting personnel 2022/2024. Ana Martínez Gómez.
- María Zambrano contracts for the attraction of international postdoctoral talent - María Zambrano 2022. Sol Posé Méndez.

Fecha del CVA	26/10/2025
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Parte A. DATOS PERSONALES

Nombre	Rocio		
Apellidos	Gomez Lencero		
Sexo	Mujer	Fecha de Nacimiento	08/07/1980
DNI/NIE/Pasaporte	50740525H		
URL Web	https://portalcientifico.uam.es/es/ipublic/researcher/261090 https://www.uam.es/ciencias/facultad/dpto-biologia/gomez-lencero-rocio/f1-1606968475302		
Dirección Email	rocio.gomez@uam.es		
Open Researcher and Contributor ID (ORCID)	0000-0003-4408-9812 https://orcid.org/0000-0003-4408-9812		

A.1. Situación profesional actual

Puesto	Titular de Universidad		
Fecha inicio	2022		
Organismo / Institución	Universidad Autónoma de Madrid		
Departamento / Centro	Biología / Facultad de Ciencias		
País		Teléfono	
Palabras clave	240700 - Biología celular		

Sexenios CNEAI: 3 sexenios, sexenio vivo

Sexenio 3: 2003-2008

Sexenio 2: 2009-2014

Sexenio 1: 2015-2020

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

Periodo	Puesto / Institución / País
2019 - 2022	Contratado Doctor LOU / Universidad Autónoma de Madrid
2017 - 2019	Contratado Doctor Interino LOU / Universidad Autónoma de Madrid
2011 - 2016	Profesor Ayudante Doctor LOU / Universidad Autónoma de Madrid
2013 - 2014	Estancia postdoctoral- permiso larga duración
2008 - 2011	Ayudante LOU / Universidad Autónoma de Madrid / España
2005 - 2008	Becaria FPU/UAM / Universidad Autónoma de Madrid / España
2022 -	Representante de Directoras y Directores ante Consejo de Gobierno / Universidad Autónoma de Madrid
2019 -	Directora del Departamento de Biología / Universidad Autónoma de Madrid

2019 -	Promotora y coordinadora de 5 Acuerdos Marco Internacionales con Sociedades científicas europeas / Universidad Autónoma de Madrid
2017 -	Secretaria Académica del Departamento de Biología / Universidad Autónoma de Madrid
2012 -	Coordinadora movilidad de la Facultad de Ciencias / Universidad Autónoma de Madrid

A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
Acreditación Doing-EMI (English as a Medium of Instruction)	Universidad Autónoma de Madrid	2018
Experto en Docencia Universitaria	Universidad Autónoma de Madrid	2011

Parte C. LISTADO DE APORTACIONES MÁS RELEVANTES

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

- 1 Artículo científico. Skinner, M; Simington, C; López-Jiménez, O; et al; Jordan, P.W.; (9/11) Gómez, R. 2024. Mammalian spermatocytes have the capacity to segregate chromosomes despite centriole duplication failure. EMBO Reports. <https://doi.org/10.1038/s44319-024-00187-6>
- 2 Artículo científico. (1/8) Rocio Gómez Lencero (AC); Alberto Viera; Inés Berenguer; Tania Moreno-Mármol; Andrea Guajardo-Grence; Attila Tóth; Maria Teresa Parra; Jose Suja. 2023. Kinase PLK1 regulates the disassembly of the lateral elements and the assembly of the inner centromere during the diakinesis/metaphase I transition in male mouse meiosis. Front. Cell Dev. Biol. Frontiers. <https://doi.org/10.15252/embr.202051030>
- 3 Artículo científico. Pablo; Sara; Inés; Francesc; Jesús; (6/6) Rocío (AC). 2023. The male mouse meiotic cilium emanates from the mother centriole at zygotene prior to centrosome duplication. Cells. MDPI. 12-142. <https://doi.org/10.3390/cells12010142>
- 4 Artículo científico. Inés Berenguer; Pablo López-Jiménez; Irene Mena; et al; (10/10) Rocío Gómez (AC). 2022. Haspin participates in AURKB recruitment to centromeres and contributes to chromosome congression in male mouse meiosis. Journal of Cell Science. <https://doi.org/10.1093/jcs.259546>
- 5 Artículo científico. Enrique Alfaro; Pablo Lopez-Jiménez; José González-Martínez; Marcos Malumbres; José A. Suja; (6/6) Rocío Gómez (AC). 2021. PLK1 regulates centrosome migration and spindle dynamics in male mouse meiosis. Embo Reports. 22(4):e51030-4. <https://doi.org/10.15252/embr.202051030>
- 6 Artículo científico. Luxi; (2/4) Rocio; Martin; Linda C. 2024. Temperature and light timing effects on diapause progression in Daphnia magna. Freshwater Biology. Wiley. 69-11, pp.1596-1606. <https://doi.org/10.1111/fwb.14329>
- 7 Artículo científico. Ana Gil Fernandez; Marta Ribadorda; Marta Martín Ruiz; et al; Jesús Page; (14/15) Rocio Gómez. 2023. Divergent patterns of meiotic double strand breaks and synapsis initiation dynamics suggest an evolutionary shift in the meiosis program between American and Australian marsupials. Front Cell Dev Biol. 25:11:1147610.. <https://doi.org/10.3389/fcell.2023.1147610>
- 8 Artículo científico. Annete Graeve; Joshua Huster; Deria Görl; Ioana Ionnidou; (5/6) Rocio Gómez; Linda C. Weiss. 2022. Distinct cell proliferation patterns underlying the development of defensive crests in Daphnia longicephala. Helyon. <https://doi.org/10.2139/ssrn.4039657>
- 9 Artículo científico. Ana Gil Fernandez; Marta Ribadorda; Marta Martín Ruiz; et al; Jesús Page; (6/10) Rocío Gómez. 2021. Meiotic Behavior of Achiasmata Sex Chromosomes in the African Pygmy Mouse

Mus mattheyi Offers New Insights into the Evolution of Sex Chromosome Pairing and Segregation in Mammals. *Genes*. 10.3390/genes1209143. <https://doi.org/10.3390/genes12091434>

- 10 Artículo científico. Roberto de la Fuente; Florencia Pratto; Abraham Hernández-Hernández; et al; Jesús Page; (6/11) Rocío Gómez. 2021. Epigenetic Dysregulation of Mammalian Male Meiosis Caused by Interference of Recombination and Synapsis. *Cells*. 10-9, pp.2311. <https://doi.org/10.3390/cells10092311>
- 11 Artículo científico. Luxi Chen; Rocío Gómez; Linda Weiss. 2021. Isoform specific expression patterns of heat shock protein 70 during development, diapause and temperature stress in the freshwater crustacean *Daphnia magna*. *Frontiers Cell and Developmental Biology*. <https://doi.org/10.3389/fcell.2021.692517>
- 12 Artículo científico. Alberto Viera; Inés Berenguer; Miguel Ruiz-Torres; Rocío Gómez; Andrea Guajardo; José Luis Barbero; Ana Losada; José A. Suja. 2020. PDS5 proteins regulate the length of axial elements and telomere integrity during male mouse meiosis. *EMBO Reports*. 21-6, pp.e49273. <https://doi.org/10.15252/embr.201949273>
- 13 Artículo científico. Luxi Chen; Rosemary Barnett; M Horstmann; et al; Linda C Weiss. 2018. Mitotic activity patterns and cytoskeletal changes throughout the progression of diapause developmental program in *Daphnia*. *BMC Cell Biology*. Springer. 19 (1)-30. <https://doi.org/10.1186/s12860-018-0181-0>
- 14 Artículo científico. El Yakoubi W; Buffin E; Cladière D; et al; Wassmann K. 2017. Mps1kinase dependent Sgo2 centromere localization mediates cohesin protection in mouse oocyte meiosis I. *Nature Communications*. *Nature*. <https://doi.org/10.1038/s41467-017-00774-3>
- 15 Artículo científico. Gómez R; Van Damme K; Gosálvez J; Morán ES; Colbourne JK. 2016. Male meiosis in Crustacea: synapsis, recombination, epigenetics and fertility in *Daphnia magna*. *Chromosoma*. Springer. 125-4, pp.769-787. <https://doi.org/10.1007/s00412-015-0558-1>
- 16 Artículo científico. Gómez R; Felipe-Medina N; Ruiz-Torres M; et al; Suja JA. 2016. Sororin loads to the synaptonemal complex central region independently of meiotic cohesin complexes. *EMBO Reports*. EMBO Press. 17-5, pp.695-707. <https://doi.org/10.15252/embr.201541060>
- 17 Artículo científico. Viera, A.; Alsheimer, M.; Gómez, R.; et al; Suja, J. A. 2015. CDK2 regulates nuclear envelope protein dynamics and telomere attachment in mouse meiotic prophase. *J Cell Sci*. 128-1, pp.88-99. <https://doi.org/10.1242/jcs.154922>
- 18 Artículo científico. Marjanovi? M; Sánchez-Huertas C; Terré B; et al; Stracker TH. 2015. CEP63 deficiency promotes p53-dependent microcephaly and reveals a role for the centrosome in meiotic recombination. *Nature Communications*. *Nature*. 9-6. <https://doi.org/10.1038/ncomms8676>
- 19 Artículo científico. Gómez, R.; Viera, A.; Berenguer, I.; Llano, E.; Pendás, A. M.; Barbero, J. L.; Kikuchi, A.; Suja, J. A. 2014. Cohesin removal precedes topoisomerase II-alpha dependent decatenation at centromeres in male mammalian meiosis II. *Chromosoma*. 123(1-2); pp.129-146. <https://doi.org/10.1007/s00412-013-0434-9>
- 20 Artículo científico. Gómez, R.; Jordan, P. W.; Viera, A.; et al; Suja, J. A. 2013. Dynamic localization of SMC5/6 complex proteins during mammalian meiosis and mitosis suggests functions in distinct chromosome processes. *J Cell Sci*. 126-Pt 18, pp.4239-52. <https://doi.org/10.1242/jcs.130195>
- 21 Capítulo de libro. Pablo López Jlménez; Inés Berenguer López; Irene Pérez Moreno; Julia González de Aledo; Jesús Page Utrilla; (6/6) Rocío Lencero Lencero (AC). 2024. The Organotypic Culture of Mouse Seminiferous Tubules as a Reliable Methodology for the Study of Meiosis In Vitro. *Meiosis Books. Methods and protocols*. Springer Nature. <https://doi.org/10.1007/978-1-0716-3906-1>

C.3. Proyectos o líneas de investigación

- 1 Proyecto. PID2022-140364NB-I00, Meiosis, cromosomas sexuales y citoesqueleto: de la fertilidad a la evolución. Programa Nacional Ministerio de Economía y Competitividad (MINECO). Rocío Gómez Lencero. (Universidad Autónoma de Madrid). 01/09/202301/08/2027. 218.750 €. Co-IP de este proyecto, junto a Jesús Page Utrilla.

- 2 Proyecto. COVTRAVI-19-CM, COVTRAVI-19-CM - Consejería de Ciencia, Universidad e Innovación CAM. REACT. Consejería de Ciencia, Agencia Estatal de Investigación, Universidad e Innovación CAM. Manuel Fresno. (CBMSO y Universidad Autónoma de Madrid). 01/02/2022-31/12/2022. 2.085.190 €. Este proyecto consta de la participación de 28 investigadores, en 4 Work-Packages diferentes. Yo participé en el WP1.3. Alteraciones en la fertilidad derivadas de la infección por SARS-CoV2.
- 3 Proyecto. BFU2014-53681-P, Modificaciones post-traduccionales de histonas en el centrómero interno e impacto sobre las divisiones meióticas de mamíferos y en el origen de aneuploidías.. Programa Nacional MINECO. (Universidad Autónoma de Madrid). 01/01/2015-31/12/2018. 130.000 €. Miembro de equipo.
- 4 Proyecto. BFU2015-71786-REDT, Red Española de Meiosis. Plan Estatal de Investigación Científica y Técnica y de Innovación 2013-2016. Pendás. (Universidad Autónoma de Madrid). 01/01/2016-31/12/2017. 53.170 €. Miembro de equipo.
- 5 Proyecto. BRIDGE Seed Fund 2016, The Biology of suspended animation.. British National BRIDGE Seed Fund. (University of Birmingham, Universidad Autónoma de Madrid, University of Bochum y University of Illinois). 31/01/2015-31/12/2017. 29.526 €. Colaborador científico.
- 6 Contrato. Optimización de la separación de poblaciones purificadas de espermatozoides de ratón por citometría de flujo Rocío Gómez Lencero. (Departamento de Biología UAM). 01/11/2023-01/11/2024.
- 7 Contrato. Estudio de la Incidencia de la fragmentación de ADN espermático en reproducción asistida Rocío Gómez Lencero. (IVI-IVIRMA y Universidad Autónoma de Madrid). 01/04/2022-01/04/2025.
- 8 Contrato. Proyectos competitivos conseguidos en convocatorias propias de la UAM. Rocío Gómez Lencero. (Departamento de Biología UAM). 30/10/2020-30/10/2022. 7.090 €.

CURRICULUM VITAE ABREVIADO (CVA)

Part A. PERSONAL INFORMATION

First name	Alberto		
Family name	Viera Vicario		
e-mail	alberto.viera@uam.es		URL Web
Open Researcher and Contributor ID (ORCID) (*)			0000-0002-3602-4130

(*) Mandatory

A.1. Current position

Position	Profesor Titular Universidad		
Initial date	12/07/2010		
Institution	Universidad Autónoma de Madrid		
Department/Center	Biología	Facultad de Ciencias	
Country	Spain		
Key words	Cell Biology, Meiosis, chromosome, cell division, histones		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
2008 - 2010	Profesor Ayudante Doctor/Universidad Autónoma de Madrid/España,
2004 - 2008	Profesor Ayudante/Universidad Autónoma de Madrid/España,

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed in Biological Sciences	Universidad Autónoma de Madrid, Spain	2001
PhD in Cell Biology and Genetics	Universidad Autónoma de Madrid, Spain	2005

Part B. CV SUMMARY (max. 5000 characters, including spaces)

My scientific career in Cell Biology has been focused for almost 25 years on the study of meiosis. The main scientific objective has been to explore and clarify different cellular processes and structures participating in this specialized type of cell division. Thus, the studies carried out have not been limited to a specific organism, nor to a specific structure, but to the analysis of the "biological problem", using various experimental models and a battery of methodological approaches. My conceptual, technical and scientific background has been contrasted by my participation in 18 research projects and the publication of more than 45 scientific articles, with a 22 h-index. Many of the analyses carried out have been developed in different species of mammals (rodents and marsupials) and insects (orthoptera and hemiptera), allowing the comparison of results among different species.

One of my main scientific interests is the study of meiotic chromosome structure, analyzing the composition, organization and function of different chromosomal domains. In this sense, I have studied, among others, telomeres, centromeres, the synaptonemal complex, cohesins and their regulatory proteins, condensins or Topoisomerase II α . Chromosome segregation patterns have been studied in species with monocentric or holocentric

chromosomes, in species displaying canonical meiosis or presenting inverted meiosis. The process of meiotic recombination, and its interrelation with synapsis and transcriptional activity of chromosomes also represents another major field of my studies. During the last 10 years, my research has been devoted to elucidating the role of histones, and their post-translational modifications, in different aspects of meiosis. We have studied the epigenetic landscape of histone modifications regulating processes as transcriptional activity during meiosis. Currently, the role played by different post-translational histone modifications in centromere assembly and meiotic recombination is being analyzed.

Regarding my training ability, I have supervised or co-supervised more than 20 final Degree projects, three Master Theses and at this moment I am co-directing a Doctoral Thesis.

Some general quality indicators of my research career are included below:

- Number of six-year terms granted by CNEAI: 3 (Last in 2019, next application in 2025)
- Number of research projects in which I have participated: 18
- Total number of publications: 46
- Bibliometrics of my research at WoS: 9 D1 publications, 22 Q1 publications, 1390 citations, with an average number of citations per publication of 30.22 and a H-index of 22.
- Bibliometrics of my research at Scopus: 20 D1 publications, 33 Q1 publications, 1504 citations, with an average number of citations per publication of 32.69 and a H-index of 23.

Part C. RELEVANT MERITS (*sorted by typology*)

C.1. Publications (*see instructions*)

1 Scientific paper. Santos JL; Parra MT; Arévalo S; Guajardo-Grence A; Page J; Suja JA; García de la Vega C; Viera, A. 2024. B Chromosome Transcriptional Inactivation in the Spermatogenesis of the Grasshopper *Eyprepocnemis plorans*. *Genes*. 15: 1521. DOI: 10.3390/genes15121512. Author's position: 8/8, corresponding author. Citations: 0.

2 Scientific paper. Gómez R; Viera A; Moreno-Mármol T; Berenguer I; Guajardo-Grence A; Toth A; Parra MT; Suja JA. 2023. Kinase PLK1 regulates the disassembly of the lateral elements and the assembly of the inner centromere during the diakinesis/ metaphase I transition in male mouse meiosis. *Frontiers in Cell and Developmental Biology*, 10: 1069946. DOI: 10.3389/fcell.2022.1069946. Author's position: 2/8. Citations: 0.

3 Scientific paper. Berenguer I; Lopez-Jimenez P; Mena I; Viera A; Page J; Gonzalez-Martinez J; Maestre C; Malumbres M; Suja JA; Gómez R. 2022. Haspin participates in AURKB recruitment to centromeres and contributes to chromosome congression in male mouse meiosis. *Journal of Cell Science*, 135: jcs259546. DOI:10.1242/jcs.259546. Author's position: 4/10. Citations: 5,

4 Scientific paper. Viera A; Berenguer I; Ruiz-Torres M; Gómez R; Guajardo A; Barbero JL; Losada A; Suja JA. 2020. PDS5 proteins regulate the length of axial elements and telomere integrity during male mouse meiosis. *EMBO Reports*, 21: e49273. 2020. DOI: 10.15252/embr.201949273. Author's position: 1/8. Citations: 26.

5 Scientific paper. Viera A; Alsheimer M; Gomez R; Berenguer I; Ortega S; Symonds CE; Santamaria D; Benavente R; Suja JA. 2015. CDK2 regulates nuclear envelope protein dynamics and telomere attachment in mouse meiotic prophase. *Journal of Cell Science*, 128: 88-99. DOI: 10.1242/jcs.154922. Author's position: 1/9. Citations: 57.

6 Scientific paper. Parra MT; Gomez R; Viera A; Llano E; Pendas AM; Rufas JS; Suja JA. 2009. Sequential Assembly of Centromeric Proteins in Male Mouse Meiosis. *PLoS Genetics*, 5: e1000417. DOI: 10.1371/journal.pgen.1000417. Author's position: 3/7. Citations: 41.

7 Scientific paper. Viera A; Rufas JS; Martinez I; Barbero JL; Ortega S; Suja JA. 2009. CDK2 is required for proper homologous pairing, recombination and sex-body formation during male

mouse meiosis. *Journal of Cell Science*, 122:2149-2159. DOI: 10.1242/jcs.046706. Author's position: 1/6. Citations: 96.

8 Scientific paper. Parra MT; Gomez R; Viera A; Page J; Calvente A; Wordeman L; Rufas JS; Suja JA. 2006. A perikinetochoric ring defined by MCAK and Aurora-B as a novel centromere domain. *PLoS Genetics*. 2: e84. DOI: 10.1371/journal.pgen.0020084. Author's position: 3/8. Citations: 28.

9 Scientific paper. Viera A; Santos JL; Page J; Parra MT; Calvente A; Cifuentes M; Gómez R; Lira R; Suja JA; S. Rufas J. 2004. DNA double strand breaks, recombination and synapsis: The timing of meiosis in grasshoppers. *EMBO Reports*, 4: 385 - 391. 2004. DOI: 10.1038/sj.embor.7400112. Author's position: 1/10. Citations: 41.

10 Scientific paper. Parra MT; Viera A; Gomez R; Page J; Benavente R; Santos JL; S. Rufas J; Suja JA. 2004. Involvement of the cohesin Rad21 and SCP3 in monopolar attachment of sister kinetochores during mouse meiosis. *Journal of Cell Science*, 117: 1221-1234. DOI: 10.1242/jcs.00947. Author's position: 2/8. Citations: 138.

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

1 Arévalo S; Guajardo-Grence A; Suja JA; Viera A; Parra MT. Analysing histone phosphorylations at mouse centromere. Spanish Meiosis Meeting. 2024. Madrid, Spain. Poster.

2 Arévalo S; Viera A; Guajardo-Grence A; Suja JA; Parra MT. Unraveling the centromere histone code of mouse meiotic chromosomes. Spanish Meiosis Meeting. 2023. Madrid, Spain. Oral communication.

3 Ribagorda M; Gil-Fernandez A; Martín-Ruiz M; López P; Rufas JS; Parra MT; Viera A; Veyrunes F; Page J. Dynamics of DNA repair during male meiosis in the African pygmy mouse *Mus mattheyi*. EMBO Workshop on Meiosis. 2019. La Rochelle, France. Poster.

4 Berenguer I; Gómez R; Viera A; Suja JA. Histone modifications at mammalian meiotic centromeres. The EMBO Conference on Meiosis. 2013. Dresden, Germany. Poster.

5 Viera A; Rufas JS; Martínez I; Barbero JL; Ortega S; Suja JA. CDK2 is required for proper homologous pairing, recombination and sex body formation during male mouse meiosis. 2009. The EMBO Conference on Meiosis Isle sur la Sorgue, France. Poster.

6 Viera A; Gómez R; Parra MT; Calvente A; Fuente R; Page J; Schmiesing JA; Yokomori K; Rufas JS; Suja JA. Condensin I distribution in mouse chromosomes reveals new insights on meiotic chromosome structure and dynamics. 8th European Meiosis Meeting. 2007. Kanagawa, Japan. Poster.

7 Gómez R; Parra MT; Viera A; Casanova M; Rufas JS; Barbero JL; Suja JA. Involvement of SGO2 and Topoisomerase II ζ in chromatid segregation during male mouse meiosis II. 8th European Meiosis Meeting. 2007. Kanagawa, Japan. Oral communication.

8 Gómez R; Parra MT; Viera A; Rufas JS; Suja JA. Are cohesin complexes maintaining centromere cohesion during mammalian meiosis II? 7th European Meiosis Meeting. 2005. San Lorenzo del Escorial, Spain. Oral communication.

9 Viera A; Parra MT; Page J; Calvente A; Gómez R; Suja JA; Rufas JS; Santos JL. Recombination and synapsis in grasshopper meiosis. Gordon Research Conference on Meiosis. 2004. New London, USA. Poster.
Ciudad de celebración:

10 Viera A; Parra MT; Page J; Calvente A; Gómez R; Cifuentes M; Santos JL; Rufas JS; Suja JA. Mouse telomeric complexes flop during the pachytene/ metaphase I transition. 6th European Meiosis Meeting. 2003. Obertraun, Austria. Poster.

C.3. Research projects

1 Project. PID2020-117491GB-I00, Fosforilaciones post-traduccionales de histonas implicadas en la maduración del centrómero y en la recombinación durante la Meiosis. Agencia Estatal de Investigación. PI: Suja Sánchez, JA (UAM, Facultad de Ciencias, Biología). 01/09/2021-31/08/2025, 145.200 €. Team member.

2 Project. CGL2014-53106-P, La meiosis y la evolución de los cromosomas sexuales en mamíferos. Ministerio de Economía y Competitividad. PI: Page Utrilla, J (UAM, Facultad de Ciencias, Biología). 01/01/2015-31/12/2020, 154.000 €. Team member.

3 Project. BFU2014-53681-P, Modificaciones post-traduccionales de histonas en el centrómero interno e impacto sobre las divisiones meióticas de mamíferos y en el origen de aneuploidías. Ministerio de Economía y Competitividad. PI: Suja Sánchez, JA. (UAM, Facultad de Ciencias, Biología). 01/01/2015-31/12/2018, 130.000 €. Team member.

4 Project. SAF2011-28842-C02-01, Dinámica de los complejos proteicos implicados en la asociación entre cromátidas hermanas durante la meiosis y su implicación en aneuploidías. Ministerio de Ciencia e Innovación. PI: Suja Sánchez, JA. (UAM, Facultad de Ciencias, Biología). 01/01/2012-31/12/2014, 110.000 €. Team member.

5 Project. BFU2008-00300, Análisis de los mecanismos reguladores de la asociación entre cromátidas hermanas durante la meiosis de ratón. Ministerio de Ciencia e Innovación. PI: Suja Sánchez, JA. (UAM, Facultad de Ciencias, Biología). 01/01/2009-31/12/2011, 127.050 €. Team member.

6 Project. BFU2009/10987, Relación entre la sinapsis y la actividad transcripcional: implicaciones en la progresión de la meiosis. Ministerio de Ciencia e Innovación. PI: Page Utrilla, J (UAM, Facultad de Ciencias, Biología). 01/01/2010-31/12/2013, 100.000 €. Team member.

7 Project. BFU2006-06655, Dinámica del cromosoma meiótico: interrelaciones entre los procesos de sinapsis, cohesión y recombinación. Ministerio de Educación y Ciencia. PI: Sánchez Rufas, J (UAM, Facultad de Ciencias, Biología). 01/10/2006-30/09/2009, 60.000 €. Team member.

8 Project. BFU2005-05668-C03-01/BCM, Regulación de las divisiones meióticas durante la espermatogénesis de mamíferos. Ministerio de Educación y Ciencia. PI: Suja Sánchez, JA (UAM, Facultad de Ciencias, Biología). 31/12/2005-31/12/2008, 88.000 €. Team member.

9 Project. BFU2005-01266, Estructura y dinámica del cromosoma meiótico. Ministerio de Educación y Ciencia. PI: Sánchez Rufas, J (UAM, Facultad de Ciencias, Biología). 01/01/2006-31/12/2006, 30.000 €. Team member.

10 Project. BMC2002-00043, Estructura y dinámica del cromosoma meiótico. Ministerio de Educación y Ciencia. PI: Sánchez Rufas, J (UAM, Facultad de Ciencias, Biología). 01/01/2003-31/12/2005, 74.750 €. Team member.

Fecha del CVA	09/09/2025
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Parte A. DATOS PERSONALES

Nombre *	MARIA ANGELES		
Apellidos *	VICENTE LOPEZ		
URL Web	https://grupoinvestigacionmadrid.blogspot.com/2018/10/entrada-1.html		
Dirección Email	avicente@ucm.es		
Identificador científico	Open Researcher and Contributor ID (ORCID) *	0000-0002-9456-5541	
	Researcher ID	B-7951-2015	
	Scopus Author ID		

* Obligatorio

A.1. Situación profesional actual

Puesto	Catedrática de Universidad		
Fecha inicio	2008		
Organismo / Institución	UNIVERSIDAD COMPLUTENSE DE MADRID		
Departamento / Centro			
País			
Palabras clave	320000 - Ciencias Médicas		

A.2. Situación profesional anterior

Periodo	Puesto / Institución / País
2015 - 2024	Coordinadora del Programa de Doctorado en Investigación Biomédica / Universidad Complutense de Madrid
2005 - 2024	Directora del Grupo UCM Células Madre, Inmunidad y Cáncer (N° 910552) / Universidad Complutense de Madrid
2009 - 2018	Directora del Departamento de Biología Celular / UNIVERSIDAD COMPLUTENSE DE MADRID
2002 - 2008	Profesora Titular de Universidad / UNIVERSIDAD COMPLUTENSE DE MADRID
1995 - 2002	Profesora Titular de Escuela Universitaria / UNIVERSIDAD COMPLUTENSE DE MADRID
1994 - 1995	Contratado Postdoctoral / Instituto de Neurobiología Ramón y Cajal

A.3. Formación académica

Grado/Master/Tesis	Universidad / País	Año
Programa Oficial de Doctorado en Inmunología	UNIVERSIDAD COMPLUTENSE DE MADRID	1994

Licenciado en Biología Especialidad Biología Fundamental	UNIVERSIDAD COMPLUTENSE DE MADRID	1989
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A.4. Indicadores generales de calidad de la producción científica
5 sexenios de investigación (último en 2021) y 1 sexenio de
transferencia (último 2018) 85 indexed articles published (62%
in Q1, of which 44% in D1) H-index: 31/32 (Scopus/WoS).
Total citations: 2564/2621 (Scopus/WoS).
10 tesis dirigidas y más de 15 TFM

Parte B. RESUMEN LIBRE DEL CURRÍCULUM

Realicé mi Tesis Doctoral en la Facultad de Biología bajo la dirección del profesor Agustín Zapata, estudiando la diferenciación de los diferentes componentes del microambiente tímico durante la ontogenia. Este trabajo fue completado en el Dpto de Microbiología e Inmunología de la Facultad de Medicina en la Universidad de Montreal y en el Royal Postgraduate Medical School en el Hammersmith Hospital y recibió el premio extraordinario de doctorado. En 1994 me incorporé como investigador postdoctoral, al grupo del Dr Lerma en el Instituto Cajal de Neurociencias. Fruto de esta estancia, colaboré en la publicación de cuatro trabajos pioneros en el conocimiento de la localización y papel de los receptores ionotrópicos de glutamato en la neurona. En 1996 inicié mi andadura como grupo de investigación independiente. Durante estos años he compaginado mi labor docente, investigadora y de gestión sólo interrumpida por mis tres bajas maternales. Desde el punto de vista científico mi grupo se ha centrado en el estudio del papel de diferentes morfógenos, especialmente BMP4, en el mantenimiento de los progenitores hematopoyéticos y la relevancia de estos factores como inmunoreguladores tanto en condiciones fisiológicas como patológicas. Un interés creciente por darle valor traslacional a nuestra investigación, nos ha llevado en los últimos años a iniciar colaboraciones con diferentes grupos clínicos dentro del área de oncohematología e inmunoterapia donde las células mesenquimales son eje central en nuestra investigación. Desde el punto de vista bibliométrico he publicado 85 artículos indexados (62% in Q1, of which 44% in D1; H-index: 31/32 (Scopus/WoS). Total citations: 2564/2621 (Scopus/WoS). Para el desarrollo de estos trabajos he recibido financiación ininterrumpidamente en las distintas convocatorias nacionales, desde la creación del grupo. Soy directora del Grupo de Investigación UCM "Células madre, inmunidad y cáncer", Investigador Principal de 12 proyectos nacionales (FIS, BFU/SAF), 3 proyectos regionales y locales (Comunidad de Madrid y UCM), y dos Art 83. Además, he participado como colaborador en más de 15 proyectos (dos de ellos internacionales, RETICS, Programa I+D Biomedicina de la CM y el resto, nacionales, autonómicos y proyectos subvencionados con fondos privados). Esta investigación ha dado lugar a la concesión de seis sexenios (5 de investigación; último periodo 2016-2021; y, un sexenio de transferencia, 2010-2018). A lo largo de estos años he colaborado con diferentes empresas a través de Art 83 (colaboración público-privada) y Doctorado Industrial tales como Sigma-Aldrich SA y Immunotek SL y he sido asesora científica (Imereti). Formación: He dirigido 10 tesis doctorales (las tres últimas destacadas con Premio Extraordinario de Doctorado y, una de ellas Accesit Premio Margarita Salas). Actualmente todos los egresados están en activo y ocupan

puestos como postdoctorales en investigación en laboratorios clínicos y farmacéuticos mientras que otros pertenecen a cuerpos docentes universitarios o del CSIC. He dirigido 20 Trabajos Fin de Máster y tutelado numerosos estudiantes de Postgrado. Tutelo anualmente las prácticas FTCs de alumnos del Grado Superior de Anatomía Patológica y Citología de diferentes Centros de FP (2012-actualidad). Como evaluador, he participado en numerosas ocasiones en tribunales para acceso a cuerpos docentes (para distintas universidades españolas y en la University of East London) y de investigación (OPIs, CSIC), he sido revisor de artículos científicos para diferentes revistas, evaluador ANEP (proyectos de investigación, becas e infraestructuras), evaluador proyectos FISS; evaluador habitual de Proyectos presentados a la Comisión de Garantías para la Donación y Utilización de Células y Tejidos (ISCI III) (2009-hasta la actualidad), Wellcome Trust (2010), Dutch Cancer Society (KWF); evaluador para la Fundación Progreso y Salud de la Conserjería de Salud y Bienestar Social de la Junta de Andalucía (2012, 2015, 2017-Actualidad), evaluación para Fundaciones Privadas (Fundación Puerta de Hierro, Uno entre CienMil); evaluador de proyectos Universidad Complutense de Madrid/Santander), coordinador evaluación paneles Proyectos de Innovación Docente (área Biosanitaria, 2020 y 2021 UCM). Además, he sido evaluador de diferentes Títulos de Grado, Máster y Doctorado del área de Biomedicina para la Agencia de Calidad Catalana (AQU). Entre 2018-2024 he sido miembro de la Comisión Técnica del Banco Nacional de Líneas Celulares. Dentro del apartado divulgación científica, coordino anualmente actividades dentro de la Semana de la Ciencia (2015-actualidad), he participado en el Programa 4°ESO+Empresa (2010-2018), participo y coordino la Jornada UniStemDay (2105-Actualidad), participo en el proyecto UCM Ciencia en Residencia dirigido a la divulgación científica a la tercera edad, y divulgamos nuestra investigación a través de diferentes medios de comunicación.

Parte C. MÉRITOS MÁS RELEVANTES

C.1. Publicaciones

AC: Autor de correspondencia; (n° x / n° y): posición firma solicitante / total autores. Si aplica, indique el número de citas

- 1 Artículo científico. Jaris Valencia; Rosa M. Yanez; Sandra Muntion; et al; Fermin Sanchez-Guijo. 2025. Improving the therapeutic profile of MSCs: Cytokine priming reduces donor-dependent heterogeneity and enhances their immunomodulatory capacity. FRONTIERS IN IMMUNOLOGY. FRONTIERS MEDIA SA. 16. ISSN 1664-3224. WOS <https://doi.org/10.3389/fimmu.2025.1473788>
- 2 Artículo científico. L. Quintana-Castanedo; R. Maseda; I. Pérez-Conde; et al; R. Sacedón. 2025. Interplay between iron metabolism, inflammation, and EPO-ERFE-hepcidin axis in RDEB-associated chronic anemia. Blood Advances. 9, pp.2321-2335. ISSN 24739529. SCOPUS <https://doi.org/10.1182/bloodadvances.2024015271>
- 3 Artículo científico. Paula Ortiz-Sanchez; Sara Gonzalez-Soto; Luz H. Villamizar; et al; Angeles Vicente. 2025. Meningeal leukaemic aggregates as foci of cell expansion and chemoresistance in acute lymphoblastic leukaemia metastasis. CELLULAR ONCOLOGY. SPRINGER. 48, pp.725-741. ISSN

- 2211-3428. WOS <https://doi.org/10.1007/s13402-025-01043-y>
- 4 Artículo científico. Eva Jimenez; Alberto Vazquez; Sara Gonzalez; et al; Angeles Vicente. 2024. Mucosal Bacterial Immunotherapy Attenuates the Development of Experimental Colitis by Reducing Inflammation Through the Regulation of Myeloid Cells. INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES. MDPI. 25. ISSN 1661-6596. WOS <https://doi.org/10.3390/ijms252413629>
- 5 Artículo científico. Quintana-Castanedo, Lucía; Sánchez-Ramón, Silvia; Maseda, Rocío; et al; Sacedón, Rosa. 2024. Unveiling the value of C-reactive protein as a severity biomarker and the IL4/IL13 pathway as a therapeutic target in recessive dystrophic epidermolysis bullosa: A multiparametric cross-sectional study. Experimental Dermatology. John Wiley and Sons Inc. 33-8. ISSN 09066705.
- 6 Artículo científico. Maria Callejo; Daniel Morales-Cano; Miguel A. Olivencia; et al; Francisco Perez-Vizcaino. 2024. Vitamin D receptor and its antiproliferative effect in human pulmonary arterial hypertension. SCIENTIFIC REPORTS. NATURE PORTFOLIO. 14. ISSN 2045-2322. WOS <https://doi.org/10.1038/s41598-024-78380-9>
- 7 Artículo científico. et al; Nora Butta; Miguel Fernández-Arquero; et al; Marcela del Río; (17/21) Silvia Sánchez-Ramón. 2023. Gluten-sensitive enteropathy in recessive dystrophic epidermolysis bullosa. British Journal of Dermatology. Oxford University Press. Vol. 189, pp.774-776. ISSN 0007-0963, ISSN 1365-2133. <https://doi.org/10.1093/BJD/LJAD313>

Artículo científico

- 8 . Lidia M. Fernández-Sevilla; Jaris Valencia; Alberto Fraile-Ramos; et al; (18/18) Ángeles Vicente (AC). 2022. High BMP4 expression in low/intermediate risk BCP-ALL identifies children with poor outcomes. Blood. NLM (Medline). Vol. 139, pp.3303-3313. ISSN 1528-0020. <https://doi.org/10.1182/BLOOD.2021013506>

Explicación narrativa de la aportación

Using two cohorts of pediatric patients with B-cell precursor acute lymphoblastic leukemia (BCP-ALL) this work showed that BMP4 expression levels in leukemic cells could be a useful biomarker to identify children with poor outcomes in the low-/intermediate-risk groups of BCP-ALL. Furthermore, we demonstrated using mouse xenograft models that high BMP4 expression promoted engraftment and rapid disease progression, and pharmacological blockade of BMP signaling significantly decreased CNS infiltration.

Mechanistically, BMP4 favored chemoresistance, enhanced adhesion and migration through brain vascular endothelial cells, and promoted a proinflammatory microenvironment and CNS angiogenesis. These data provide evidence that BMP4 could be a new therapeutic target to blockade leukemic CNS disease.

- 9 Artículo científico. Marta Gómez-Ferrer; Elena Amaro-Prellezo; Akaitz Dorronsoro; et al; Pilar Sepúlveda; (5/10) Ángeles Vicente. 2021. Hif-overexpression and pro-inflammatory priming in human mesenchymal stromal cells improves the healing properties of extracellular vesicles in experimental crohn's disease. International Journal of Molecular Sciences. MDPI. Vol. 22. ISSN 1422-0067. <https://doi.org/10.3390/IJMS222011269>

Explicación narrativa de la aportación

Analysis of the therapeutic potential in autoimmune diseases of extracellular vesicles derived from genetically modified mesenchymal stromal cells to overexpress HIF-1 α . Administration of EVMSC-T-HIFc promoted healing in a TNBS-induced mouse colitis model in terms of preserving colon length and intestinal mucosa architecture and altering the ratio of M ϕ 1/ M ϕ 2 infiltration. EVMSC-T-HIFC have effective anti-inflammatory properties, making them potential therapeutic agents in cell free-based therapies for the treatment of Crohn's disease and likely other immune-mediated inflammatory diseases

- 10 Artículo científico. Rocío Maseda; Lucía Martínez-Santamaría; Rosa Sacedón; et al; María José Escámez; (15/18) Ángeles Vicente. 2020. Beneficial Effect of Systemic Allogeneic Adipose Derived Mesenchymal Cells on the Clinical, Inflammatory and Immunologic Status of a Patient With Recessive Dystrophic Epidermolysis Bullosa: A Case Report. Frontiers in Medicine. Frontiers Media S.A.. Vol. 7. ISSN 2296-858X. <https://doi.org/10.3389/FMED.2020.576558>
- 11 Artículo científico. Alberto Vázquez; Lidia M. Fernández-Sevilla; Eva Jiménez; et al; (9/9) Angeles Vicente (AC). 2020. Involvement of Mesenchymal Stem Cells in Oral Mucosal Bacterial Immunotherapy. Frontiers in Immunology. Frontiers Media S.A.. Vol. 11. ISSN

Artículo científico

1664-3224. <https://doi.org/10.3389/FIMMU.2020.567391>

Explicación narrativa de la aportación

This work provided first evidence of MSCs could be involved in the observed clinical benefits of MV130 (a polyvalent bacterial sublingual preparation designed to prevent recurrent respiratory infectious diseases). Resident oral mucosa MSCs are able to uptake, process and retain a reservoir of the TLR ligands derived from MV130 digestion. Initially during early-stage inflammation, MV130-primed MSCs favors leukocyte recruitment and T-cell activation. Once exposed to sufficient levels of pro-inflammatory cytokines, MV130-primed MSCs respond by adopting an improved immune-suppressive phenotype, to dampen inflammation and avoid excessive tissue damage. MV130-primed MSCs show additional features that can be associated to trained immunity since they modify their response to a secondary inflammatory stimulation.

- 12 . Lidia M Fernández-Sevilla; Jaris Valencia; Miguel A Flores-Villalobos; et al; (9/9) Ángeles Vicente (AC). 2020. The choroid plexus stroma constitutes a sanctuary for paediatric B-cell precursor acute lymphoblastic leukaemia in the central nervous system. *Journal of Pathology*. John Wiley and Sons Ltd. Vol. 252, pp.189-200. ISSN 1096-9896. <https://doi.org/10.1002/PATH.5510>

Explicación narrativa de la aportación

This study proposes that the stroma of the choroid plexus (the brain structure responsible for the production of cerebrospinal fluid) constitutes a sanctuary for B-cell precursor acute lymphoblastic leukemia cells in the central nervous system. Using xenotransplanted mice, we showed that leukemic cells infiltrate the connective tissue stroma of the choroid plexus. In short-term co-cultures, leukemic cells established strong interactions with human choroid plexus fibroblasts, which upon contact acquired a cancer-associated fibroblast phenotype and the capacity to reduce the proliferative index of leukemic blasts and promote their survival and chemoresistance to chemotherapy drugs. The inhibition of VLA-4/VCAM-1 interactions and the blockade of Notch signaling pathway partially restored chemotherapy sensitivity of leukemia cells.

- 13 Artículo científico. Jaris Valencia; Lidia M. Fernández-Sevilla; Alberto Fraile-Ramos; Rosa Sacedón; Eva Jiménez; (6/7) Angeles Vicente (AC); Alberto Varas. 2019. Acute lymphoblastic leukaemia cells impair dendritic cell and macrophage differentiation: Role of bmp4. *Cells*. MDPI. Vol. 8. ISSN 2073-4409. <https://doi.org/10.3390/CELLS8070722>

Explicación narrativa de la aportación

This study showed that acute lymphoblastic leukemia (ALL) cells produce BMP4 and that their secretome promotes the generation of dendritic cells with immunosuppressive features and skews M1-like macrophage polarization towards a less pro-inflammatory phenotype. Likewise, BMP4 overexpression in ALL cells potentiates their

Artículo científico

ability to induce immunosuppressive dendritic cells and favors the generation of M2-like macrophages with pro-tumoral features.

- 14 Artículo científico. Víctor G. Martínez; Carolina Rubio; Mónica Martínez-Fernández; et al; Marta Dueñas; (17/18) Ángeles Vicente (AC). 2017. BMP4 induces M2 macrophage polarization and favors tumor progression in bladder cancer. Clinical Cancer Research. American Association for Cancer Research Inc.. Vol. 23, pp.7388-7399. ISSN 1078-0432. <https://doi.org/10.1158/1078-0432.CCR-17-1004>

Explicación narrativa de la aportación

BMP4 secretion by bladder cancer cells provides the M2 signal necessary for a protumoral immune environment. In addition, the repression of BMPR2 by miR-21 makes the tumor cells refractory to the prodifferentiating actions mediated by BMP ligands, favoring tumor growth.

- 15 Artículo científico. Victor G. Martinez; Imelda Ontoria-Oviedo; Carolina P. Ricardo; et al; (9/9) Angeles Vicente (AC). 2017. Overexpression of hypoxia-inducible factor 1 alpha improves immunomodulation by dental mesenchymal stem cells. Stem Cell Research and Therapy. BioMed Central Ltd.. Vol. 8. ISSN 1757-6512. <https://doi.org/10.1186/S13287-017-0659-2>

Explicación narrativa de la aportación

Overexpression of HIF-1 alpha enhances these features and increases their resistance to allogenic NK cell lysis and, hence, their potential in vivo lifespan. Our results further support the use of HIF-1 alpha-expressing dental MSCs for cell therapy in tissue injury and immune disorders.

- 16 Artículo científico. Beatriz G. Del Amo; Francisco Del Río; Ana Entrena; et al; Ángeles Vicente; (10/11) Alberto Varas. 2017. Characterization of human fibroblastic reticular cells as potential immunotherapeutic tools. Cytotherapy. Elsevier B.V.. Vol. 19, pp.640-653. ISSN 1465-3249, ISSN 1477-2566. <https://doi.org/10.1016/J.JCYT.2017.01.010>

- 17 . Belén Blanco; Juan F. Blanco; Consuelo Del Cañizo; et al; Agustín G. Zapata; (14/16) Miriam Vázquez. 2016. Comparative analysis of the immunomodulatory capacities of human bone marrow- and adipose tissue-derived mesenchymal stromal cells from the same donor. Cytotherapy. Elsevier B.V.. Vol. 18, pp.1297-1311. ISSN 1465-3249, ISSN 1477-2566. <https://doi.org/10.1016/J.JCYT.2016.07.006>

- 18 Artículo científico. Noelia M. Canseco; Ana Entrena; Lidia M. Fernández-Sevilla; et al; Angeles Vicente; (9/10) Alberto Varas. 2015. A discrete population of IFN λ -expressing BDCA3 hi dendritic cells is present in human thymus. Immunology and Cell Biology. Nature Publishing Group. Vol. 93, pp.673-678. ISSN 0818-9641, ISSN 1440-1711. <https://doi.org/10.1038/ICB.2015.22>

- 19 Artículo científico. Lidia M. Fernández-Sevilla; Laura Hidalgo; Fabien Lavocat; et al; Angeles Vicente; (9/10) Alberto Varas. 2015. Blockade of bone

Artículo científico

- morphogenetic protein signaling potentiates the pro-inflammatory phenotype induced by interleukin-17 and tumor necrosis factor- α combination in rheumatoid synoviocytes. *Arthritis Research and Therapy*. BioMed Central Ltd.. Vol. 17. ISSN 1478-6354, ISSN 1478-6362. <https://doi.org/10.1186/S13075-015-0710-6>
- 20 Artículo científico. Ana Entrena; Lidia M. Fernández-Sevilla; Javier García-Castro; et al; (9/9) Agustín G. Zapata. 2015. Mesenchymal stem cells derived from low risk acute lymphoblastic leukemia patients promote NK cell antitumor activity. *Cancer Letters*. Elsevier Ireland Ltd. Vol. 363, pp.156-165. ISSN 0304-3835, ISSN 1872-7980. <https://doi.org/10.1016/J.CANLET.2015.04.012>
- 21 Artículo científico. Lidia M. Fernández-Sevilla; Carmen Hernández-López; Laura Hidalgo; Víctor G. Martínez; Rosa Sacedón; Jaris Valencia; (7/8) Alberto Varas; Angeles Vicente. 2015. The BMP pathway participates in human naive CD4+ T cell activation and homeostasis. *PLoS ONE*. Public Library of Science. Vol. 10. ISSN 1932-6203. <https://doi.org/10.1371/JOURNAL.PONE.0131453>
- 22 Carta. Lidia M. Fernández-Sevilla; Germán Belenguer; Beatriz Martí-Prado; Paula Ortiz-Sánchez; Manuel Ramírez; Alberto Varas; Isabel Fariñas; (8/8) Ángeles Vicente (AC). 2022. Acute lymphoblastic leukemia cells are able to infiltrate the brain subventricular zone stem cell niche and impair neurogenesis. *Haematologica*. Ferrata Storti Foundation. ISSN 1592-8721. <https://doi.org/10.3324/HAEMATOL.2021.279383>

Explicación narrativa de la aportación

Using two cohorts of pediatric patients with B-cell precursor acute lymphoblastic leukemia (BCP-ALL) this work showed that BMP4 expression levels in leukemic cells could be a useful biomarker to identify children with poor outcomes in the low-/intermediate-risk groups of BCP-ALL. Furthermore, we demonstrated using mouse xenograft models that high BMP4 expression promoted engraftment and rapid disease progression, and pharmacological blockade of BMP signaling significantly decreased CNS infiltration. Mechanistically, BMP4 favored chemoresistance, enhanced adhesion and migration through brain vascular endothelial cells, and promoted a proinflammatory microenvironment and CNS angiogenesis. These data provide evidence that BMP4 could be a new therapeutic target to blockade leukemic CNS disease.

C.3. Proyectos y Contratos

- 1 Proyecto. Neutrófilos: nuevos jugadores en el desarrollo y tratamiento de la leucémica linfoblástica aguda y la metástasis en Sistema Nervioso Central (B-ALL/NeuTR). (Facultad de Medicina, UCM). 01/09/2025-30/09/2028. 212.625 €.
- 2 Proyecto. RICORS TERA V PLUS. ADVANCED THERAPIES. (Universidad Complutense de Madrid). 01/01/2025-31/12/2027. 229.900 €.

Artículo científico

- 3 Proyecto. A multicenter clinical trial with mesenchymal stromal cells in adult and pediatric patients with steroidrefractory acute GVHD to validate an immunomodulatory potency assay that associates with treatment efficacy (PAM-TERAV). (ICI23/00085). Instituto de Salud Carlos III. Rafael Duarte. (Estudio Multicéntrico). 01/01/2024-31/12/2026. 1.575.200 €. Miembro de equipo.

- 4 Proyecto. Análisis del potencial antiinflamatorio de MV130: un enfoque prometedor contra el asma y la enfermedad inflamatoria intestinal (THERMVAB). Angeles Vicente Lopez. (Universidad Complutense de Madrid). 01/11/2024-30/10/2026. 511.157 €.
- 5 Proyecto. Neuroinflamación en la leucemia linfoblástica aguda: mecanismos, consecuencias y evaluación de nuevas aproximaciones terapéuticas (PID2021-123068OB-I00). Ministerio de Ciencia e Innovación. Ángeles Vicente López. (Universidad Complutense de Madrid). 01/09/2022-30/04/2026. 145.000 €. Investigador principal.
- 6 Proyecto. Cellular Therapy Network TerCel (RD16/0011/0002). Instituto de Salud Carlos III. José María Moraleda. (Universidad Complutense de Madrid). 01/01/202231/12/2024. 254.980 €. Miembro de equipo.
- 7 Proyecto. RICORS TERA.V. ADVANCED THERAPIES (RD 21/0017/0010). Instituto de Salud Carlos III. José María Moraleda. (Universidad Complutense de Madrid). 01/01/202231/12/2024. 254.980 €. Investigador principal.
- 8 Proyecto. How do leukemic cells penetrate, survive and grow in the CNS? Sanctuaries for leukemic cells in the CNS: the neurogenic niche (SanctALLCNS) (RTI2018-093899-B-I00). Ministerio de Ciencia, Innovación y Universidades. Ángeles Vicente López. (Universidad Complutense de Madrid). 01/01/2019-30/08/2022. 122.000 €. Investigador principal.
- 9 Proyecto. Terapias avanzadas de precisión en regeneración y reparación celular y tisular (B2017/BMD-3692). Conserjería de Ciencia, Universidades e Innovación, Comunidad de Madrid. Francisco Fernández-Aviles. (Estudio multicéntrico). 01/01/201831/12/2021. 67.264 €. Miembro de equipo.
- 10 Proyecto. Evaluación de BMP4 como biomarcador en el pronóstico de la leucemia linfoblástica aguda infantil. Relevancia de su vía de señalización en la recaída en el SNC (SAF2015-66986-R). Ministerio de Economía y Competitividad. Ángeles Vicente López. (Universidad Complutense de Madrid). 01/01/201630/06/2019. 100.000 €. Investigador principal.
- 11 Contrato. IND2020/BMD-17358. Estudio de las células stem mesenquimales como mediadores de los efectos terapéuticos de vacunas bacterianas. Efectores anti-inflamatorios y anti-microbianos Conserjería de Ciencia, Universidades e Innovación, Comunidad de Madrid. Ángeles Vicente López. 01/01/2021-01/01/2024. 90.000 €.
- 12 Contrato. Efecto inmunomodulador del precondicionamiento de células mesenquimales de médula ósea con Bactek®. Inmunotek S.L.. Ángeles Vicente López. 01/04/201701/04/2020.

C.5. Estancias en centros de I+D+i públicos o privados

- 1 CSIC. Instituto Cajal. España. Madrid. 03/11/1994-30/05/1995. 6 meses. Posdoctoral.
- 2 Hammersmith Hospital. Royal Postgraduate Medical School. Dpt. of Immunology. Reino Unido. Londres. 01/10/1991-30/12/1991. 3 meses. Doctorado/a.
- 3 University of Montreal. Faculty of Medicine. Dpt. of Microbiology and Immunology.. Canadá. Montreal. 01/10/1990-30/12/1990. 3 meses. Doctorado/a.

C.6. Dirección de tesis doctorales y/o trabajos de fin de estudios

- 1 Papel de los astrocitos y de la proteína Midkine en la leucemia linfoblástica aguda Tipo B. Universidad Complutense de Madrid. 29/11/2024.
- 2 Estudio de la metástasis en hígado y en Sistema Nervioso Central en la Leucemia Linfoblástica Aguda tipo B. Papel de la inflamación. Universidad Complutense de Madrid. 25/10/2023.
- 3 Tesis Doctoral: Leucemia linfoblástica aguda: infiltración en el sistema nervioso central y papel de BMP4. Universidad Complutense de Madrid. 2019.
- 4 Tesis Doctoral: Relevancia del microambiente medular en el desarrollo de la leucemia linfoblástica aguda infantil: papel del BMP4. Universidad Complutense de Madrid. 2016.
- 5 Tesis Doctoral: Papel de la señalización BMP4 en la diferenciación y funcionalidad de las células NK tímicas y periféricas humanas. Universidad Complutense de Madrid. 2015.
- 6 Tesis Doctoral: Expresión y función de las proteínas hedgehog en el timo humano. Universidad Complutense de Madrid. 2012.
- 7 Estudio de la infiltración del sistema nervioso central en niños con leucemia linfoblástica aguda y papel de BMP4. Universidad Autónoma de Madrid. 28/11/2011.
- 8 Tesis Doctoral: Papel de sdf-1 en el timo humano. Universidad Complutense de Madrid. 2010.
- 9 Tesis Doctoral: Efecto de la prolactina sobre la diferenciación intratímica de rata. Universidad Complutense de Madrid. 2002.
- 10 Tesis Doctoral: Papel de los glucocorticoides en los procesos de diferenciación intratímicos. Universidad Complutense de Madrid. 2000.

CV Date	19/11/2025
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Part A. PERSONAL INFORMATION

First Name	David		
Family Name	Baglietto Vargas		
URL Web			
Email Address	d.baglietto.vargas@gmail.com		
Open Researcher and Contributor ID (ORCID)	0000-0003-1441-3175		

A.1. Current position

Job Title	Associate Professor		
Starting date	2024		
Institution	Universidad de Málaga		
Department / Centre			
Country			
Keywords	Molecular mechanism of disease; Laboratoy animals; Cell culture; Cell biology; Molecular biology		

A.2. Previous positions (Research Career breaks included)

Period	Job Title / Name of Employer / Country
2020 - 2024	Distinguished Senior Researcher Beatriz Galindo / University of Malaga, Spain
2015 - 2020	Assistant Researcher Professor / University of California, Irvine
2015 - 2018	Assistant Professor / University of Malaga, Spain
2013 - 2015	Assistant Project Scientist / University of California, Irvine
2009 - 2013	Postdoctoral Researcher / University of California, Irvine
2008 - 2009	PIF-Research staff / University of Malaga, Spain
2008 - 2009	Researcher / University of Malaga, Spain
2003 - 2007	Ph.D Student / University of Malaga, Spain
2001 - 2002	Undergraduate Research Fellow / University of Malaga, Spain

A.3. Education

Degree/Master/PhD	University / Country	Year
Doctor por la Universidad de Málaga dentro del Programa en Fundamentos Celulares y Moleculares de los Seres Vivos	Universidad de Málaga	2008

Licenciado en Biología

Universidad de Málaga

2002

Part B. CV SUMMARY

During my graduate and postdoctoral training, I have had the privilege to be mentored by two outstanding leaders in the field of neurodegenerative diseases, Drs. A. Gutierrez (Spain) and Frank LaFerla (USA) with whom I developed a strong background in the study of the cellular and molecular mechanisms underlying neurodegenerative disorders, with a special focus on Alzheimer's disease pathogenesis. During this time, I have published 56 peer-reviewed publications in prestigious journals most of them included in the first quartile (e.g Nature Communication, Biol Psychiatry, PNAS, Acta Neuropathol). I also have an h-index factor of 31, an average of cite per item of 66.10 and a total of 3834 cites, which highlight the importance and the impact of my publications. I have also 3 research sexenios.

My Ph.D studies in Biological Sciences in Malaga University with Doctor Europeus were evaluated with a Cum Laude distinction and more importantly, I also was awarded with the Malaga University Ph.D award in 2008 for my innovative and significant findings during my Ph.D training investigating the neuropathological mechanisms underlying the GABAergic system deficits in a transgenic animal model of Alzheimer's disease. During my research career, I have received multiple honors and award, such as Young Scientist Award from the Alzheimer's Association or The Carl W. Cotman Schola's Award from the Institute for Memory Impairments and Neurological Disorders. Moreover, I was granted with several stipend awards and honors highlight the significant and the innovative research program developed during my research career.

Furthermore, I was able to obtain several competitive fellowship grants to support my undergraduate, graduate and postdoctoral research from National and International foundations and government programs (please see CVN). I am currently developing a strong and productive research program as Principal Investigator, being funded by several prestigious foundations (Alzheimer's Association, Larry L. Hillblom and Minister of Science and Innovation) at University of Malaga, Spain. I am also responsible for the supervision and mentoring of junior level researchers (e.g. Ph.D students and postdoctoral fellows), providing expert scientific input and critical evaluation to ongoing and newly established research projects. Currently, I have supervised one Ph.D student with the maximum distinction (Cum Laude) and I have two more doctoral students on going. I also supervised 15 undergraduate students, each of them have been developing a research project funded by the Undergraduate Research Opportunity Program (UROP) at UCI.

During the past ten years, I had provided review service over 90 times in 40 different journals such as Molecular Psychiatry, Acta Neuropathologica, Journal of Neuroinflammation, Stem Cell Reports, etc, grant review service in several respected foundations and national agencies (including Alzheimer's Association, Institute for Memory Impairment and neurological Disorder, Spanish Research State Agency, Rosetress Trust foundation in UK and Young International Academic for University of Luxembourg) and I am associated editor of Neuroscience Letter and Frontiers Neuroscience respectively. In addition, I am member of a group in CIBERNED (<https://www.ciberned.es/grupos/grupo-de-investigacion?id=28310>), IBIMA Institute (<https://>

ibima.eu/project/c-09/), NEURORECA Network
(<https://www.neuroreca.com/quienessomos>) and recently a member of a group of younger investigators created by the Teófilo Hernando Institute in Madrid. In regards of teaching experience, I have long track record as a professor in many different classes related with Cellular and Molecular Biology and Neuroscience, and a Master's program in Neuroscience in USA and Spain. Finally I am member of the advisory commission for the selection of Assistant Professors in the department of Cell Biology at the University of Malaga.

B.1. Brief summary of the Undergraduate Thesis (or equivalent) and score obtained Laura Trujillo-Estrada (2010-2015), awarded Ph.D. September 2015. Sobresaliente Cum Laudem.

Dissertation: Neuropathological characterization and preclinical evaluation of potential therapeutic strategies in transgenic animal models of Alzheimer's disease. Mentors: Antonia Gutierrez Perez and David Baglietto Vargas.

B.2. Brief summary of the Master's Thesis and score obtained

Iván Fatuarte Juli (2023/2024): Estudio de la respuesta inmune cerebral en un modelo de Alzheimer asociado con la alteración de la vía de la señalización de la insulina a nivel vascular. Calificación: Sobresaliente. Sergio Muñoz Cobos (2022/2023): Alteración de la vía de señalización de la insulina a nivel vascular y su implicación en la enfermedad de Alzheimer. Calificación: Matrícula de honor.

Francisco Cantero Molina (2021/2022): Implicación de la apolipoproteína E (ApoE) en la agregación de la proteína a-sinucleína. Calificación: Sobresaliente.

Miriam Bettinetti Luque (2020/2021): Estudio de la relación entre el tejido adiposo blanco y la progresión de la enfermedad de Alzheimer. Calificación: Sobresaliente.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 Scientific paper. Christian Crouzet; Danny Xie; Maiella Laquindanum Nuqui; et al; Bernard Choi; (7/18) David Baglietto Vargas. 2025. Cerebrovascular alterations in a mouse model of late-onset Alzheimer's disease. Neurophotonics. ISSN 2329-4248.
- 2 Scientific paper. Juana Andreo Lopez; Cristina Nuñez Diaz; Kelly Do Huynh; et al; (21/21) David Baglietto Vargas (AC). 2025. Human and mouse Alzheimer's seeds differentially affect amyloid deposition and microglia-dependent plaque response in aged mice. Aging Cell. ISSN 1474-9726.
- 3 Scientific paper. (1/3) David Baglietto Vargas (AC); Kristine Freude; Juan Antonio García León. 2024. Editorial: Animal and Cellular Models of Alzheimer's Disease. Biomedicine. ISSN 2227-9059.
- 4 Scientific paper. Clara Muñoz Castro; Marina Mejias Ortega; Elisabeth Sanchez Mejias; et al; Javier; (12/15) David. 2023. Monocyte-derived cells invade brain parenchyma and amyloid plaques

- in human Alzheimer's disease hippocampus. *Acta Neuropathologica Communications*. ISSN 2051-5960.
- 5 Scientific paper. Gustavo Rico Llanos; Oscar Porras Perales; Sandra Escalante; et al; Fabiana; (8/12) David. 2022. Cellular stress modulates severity of the inflammatory response in lungs via cell surface BiP. *Frontier Immunology*. ISSN 1664-3224.
 - 6 Scientific paper. Kristine Freude; Inés Moreno González; Carlos Jesús Rodríguez Ortiz; David Baglietto Vargas. 2022. Editorial: Metabolic Alterations in Neurodegenerative Disorders. *Frontier in Aging Neuroscience*. ISSN 16634365.
 - 7 Scientific paper. Xiaoxiao Lin; Lujia Chen; David Baglietto Vargas; et al; Xiangmin Xu. 2022. Spatial coding defects of hippocampal neural ensemble calcium activities in the triple-transgenic Alzheimer's disease mouse model. *Neurobiology of Disease*. ISSN 0969-9961.
 - 8 Scientific paper. Raquel Sanchez Varo; Elisabeth Sanchez Mejias; Juan Jose Fernandez Valenzuela; et al; Antonia Gutierrez. 2021. Plaque-Associated Oligomeric Amyloid-Beta Drivers Early Synaptotoxicity in APP/PS1 Mice Hippocampus: Ultrastructural Pathology Analysis. *Frontiers Aging in Neuroscience*. ISSN 1663-4365.
 - 9 Scientific paper. Laura Trujillo-Estrada; Peter Vanderklisch; Marie Minh Nguyen; et al; Frank LaFerla. 2021. SPG302 Reverses Synaptic and Cognitive Deficits Without Altering Amyloid or Tau Pathology in a Transgenic Model of Alzheimer's Disease. *Neurotherapeutics*. ISSN 1933-7213.
 - 10 Scientific paper. Stefania Forner; Shimako Kawauchi; Gabriela Balderrama Gutierrez; et al; Kim Green. 2021. Systematic phenotyping and characterization of the 5x*FAD* mouse model of Alzheimer's disease. *Scientific data*. ISSN 2052-4463.
 - 11 Scientific paper. David Baglietto Vargas; Stefania Forner; Lena Cai; et al; Frank LaFerla. 2021. Generation of a humanized Ab expressing mouse demonstrating aspects of Alzheimer's disease-like pathology. *Nature Communication*. ISSN 2041-1723.
 - 12 Scientific paper. Laura Trujillo Estrada; Elisabeth Sanchez Mejia; Raquel Sanchez Varo; et al; David Baglietto Vargas. 2021. Animal and Cellular Models of Alzheimer's disease: Progress, Promise and Future Approaches. *Neuroscientist*. ISSN 1073-8584.
 - 13 Scientific paper. Adrian Oblak; Stefania Forner; Paul Territo; et al; Bruce Lamb. 2020. Model organism development and evaluation for late-onset Alzheimer's disease: MODEL-AD. *Alzheimers Dement (NY)*. ISSN 2352-8737.
 - 14 Scientific paper. Elisabeth Sanchez Mejia; Cristina Nuñez Diaz; Raquel Sanchez Varo; et al; Antonia Gutierrez. 2020. Distinct disease-sensitive GABAergic neurons in the perirhinal cortex of Alzheimer's mice and patients. *Brain Pathology*. ISSN 1015-6305.
 - 15 Scientific paper. Carlos Rodríguez Ortiz; Gilberto Aleph Prieto; Alessandra Cadete Martini; et al; Masashi Kitazawa; (7/9) David Baglietto Vargas. 2020. miR-181a negatively modulates synaptic plasticity in hippocampal cultures and its inhibition rescues memory deficits in a mouse model of Alzheimer's disease. *Aging Cell*.
 - 16 Scientific edition. Ines Moreno Gonzalez; Rodrigo Morales; (3/4) David Baglietto Vargas; Raquel Sanchez Varo. 2020. Editorial: Risk

Factors for Alzheimer's Disease. *Frontier in Aging Neuroscience*. ISSN 1663-4365.

- 17 Review. Miriam Bettinetti Luque; Laura Trujillo Estrada; Eduardo Garcia Fuentes; et al; (11/11) David (AC). 2023. Adipose tissue as a therapeutic target for vascular damage in Alzheimer's disease. *British Journal of Pharmacology*. ISSN 0007-1188.
- 18 Review. Raquel Sanchez Varo; Marina Mejias Ortega; Juan Jose Fernandez Valenzuela; et al; Antonia. 2022. Transgenic Mouse Models of Alzheimer's disease: An Integrative Analysis. *International Journal of Molecular Sciences*. ISSN 1422-0067.

C.3. Research projects and contracts

- 1 Project. AARG-22-928219, Impact of white adipose tissue on tau pathology in transgenic mice. Alzheimer's Association. David Baglietto Vargas. (University of Malaga). 01/06/202231/05/2025. 150.000 €. Principal investigator.
- 2 Project. The role of vascular insulin signaling in Alzheimer's disease pathology. University of Malaga. David Baglietto Vargas. (University of Malaga). 01/04/202331/03/2025. 10.000 €. Principal investigator.
- 3 Project. PID2019-108911RA-I00, Propagacion de la patologia amiloidea en un modelo esporadico de Alzheimer: Descifrando nuevos mecanismos patogenicos y dianas terapeuticas. Ministerio de Ciencia e Innovación. David Baglietto Vargas. (University of Malaga). 01/06/2020-31/05/2024. 168.000 €. Principal investigator.
- 4 Project. 8.06/5.02.6174, Study the therapeutic efficacy of a compound that target microglia-mediated synaptic removal in Alzheimer's disease.. Vizum Pharma. David Baglietto Vargas. (University of Malaga). 01/03/2022-30/09/2023. 108.000 €. Principal investigator.
- 5 Contract. Study the therapeutic efficacy of a compound that target microglia-mediated synaptic removal in Alzheimer's disease David Baglietto Vargas. 01/03/202201/09/2023. 108.000 €.
- 6 Contract. Immunohistochemical characterization of single (PS1) and double (APPxPS1) transgenic mice models for Alzheimer's hippocampus and cerebral cortex David Baglietto Vargas. 01/04/2003-31/03/2006. 92.315 €.

Part A. PERSONAL INFORMATION

CV date

29-10-2025

First and Family name	CARLOS CRESPO RUPEREZ		
Researcher numbers	Researcher ID	56206719800	
	Orcid code	0000-0003-1069-0861	

A.1. Current position

Name of University/Institution	Universidad de Valencia		
Department	Cell Biology		
Address and Country	Dr. Moliner, 50 46100 Burjassot (Valencia). Spain		
		E-mail	carlos.crespo@uv.es
Current position	Professor (Titular de Universidad)	From	2000
Espec. cód. UNESCO	249000 - Neurosciences		
Palabras clave	Olfactory bulb, olfaction, neuroanatomy, electron microscopy		

A.2. Education

PhD	University	Year
Doctor en Ciencias Biológicas	Universidad de Salamanca	1998
Licenciado en Ciencias Biológicas	Universidad de Salamanca	1993

A.3. JCR articles, h Index, thesis supervised...

Sexenios reconocidos: 5 reconocidos de 5 posibles.

Ultimo sexenio reconocido: 2018-2023

Author of 97 scientific articles included in the JCR

h Index: 34

Number of citations: 3032

Thesis supervised: 3

1. Análisis de las dianas de la acción del óxido nítrico como neuromodulador en el bulbo olfatorio de la rata. Autor/a: María Guitérrez Mecinas. Universidad: Universidad de Valencia. Facultad/Escuela: Facultad de Biología.

Año: 2008 Calificación: Sobresaliente cum laude y P.E. Clave: Tesis Doctoral Situación: Dirección

2. Modulación subcortical del bulbo olfatorio Autor/a: Francisco Javier Gracia Llanes Universidad: Universidad de Valencia. Facultad/Escuela: Facultad de Biología

Año: 2008 Calificación: Sobresaliente cum laude y P.E. Clave: Tesis Doctoral Situación: Dirección

3. Título: Estudio de la conectividad de los circuitos neuronales del bulbo olfatorio de los primates. Comparación de individuos control con casos de Parkinson. Autor/a: Teresa Liberia Vayá. Universidad: Universidad de Valencia. Facultad/Escuela: Facultad de Biología.

Año: 2016 Calificación: Sobresaliente cum laude y P.E. Clave: Tesis Doctoral Situación: Dirección

Part B. CV SUMMARY (max. 3500 characters, including spaces)

The investigation of our laboratory is focused in the neuroanatomical organization of the neuronal circuits in the olfactory bulb of mammals. Within this field, we are especially interested in the study of different populations of interneurons and their synaptic connectivity patterns. The interneurons in which we are interested include the GABAergic, dopaminergic, peptidergic and the nitrergic ones. Moreover, we also analyze whether the connectivity map of the bulbar interneurons is altered in some pathological conditions. For that, we use a Parkinsonian model of primates.

Part C. RELEVANT MERITS

C.1. Publications

Selection of some of the articles.

1. Alcaide et al. 2024. Long term effects of peripubertal stress on the thalamic reticular nucleus of female and male mice. *Neurobiol Dis.* 1;200:106642. doi:10.1016/j.nbd.2024.106642.
2. Coviello S et al. 2022. Phenotype and Distribution of Immature Neurons in the Human Cerebral Cortex Layer. *Front Neuroanat.* doi: 10.3389/fnana.2022.851432
3. Defterali et al., 2021. Neural stem cells in the adult olfactory bulb core generate mature neurons in vivo. *Stem Cells* 39(9):1253-1269. doi: 10.1002/stem.3393.
4. Rovira-Esteban et al. Semilunar Granule Cells Are the Primary Source of the Perisomatic Excitatory Innervation onto Parvalbumin-Expressing Interneurons in the Dentate Gyrus. *eNeuro.* 2020. doi:10.1523/ENEURO.0323-19.2020.
5. Crespo C, et al. 2019. Cranial Pair I: The Olfactory Nerve. *The Anatomical Record* 302:405–427. doi: 10.1002/ar.23816
6. Liberia T, et al. 2015. Synaptic connectivity of the cholinergic axons in the olfactory bulb of the cynomolgus monkey. *Frontiers In Neuroanatomy.*
7. Liberia T, et al. 2013. Two Types of periglomerular cells in the olfactory bulb of the macaque monkey (*Macaca fascicularis*). *Brain Structure & Function.* 218(4), pp.873-887.
8. Crespo C, et al. 2013. The Circuits of the olfactory bulb. The exception as a rule. *The Anatomical Record. Record-Advances In Integrative Anatomy And Evolutionary Biology.* Wiley. 296, pp.1401-1412.
9. Liberia T, et al. 2012. Characterization of a Population of tyrosine hydroxylase-containing interneurons in the external plexiform layer of the rat olfactory bulb. *Neuroscience.* 217, pp.140-153.
10. Gracia-Llanes FJ, et al. 2010. Synaptic connectivity of serotonergic axons in the olfactory glomeruli of the rat olfactory bulb. *Neuroscience.* 169, pp.770-780.
11. Gracia-Llanes FJ, et al. 2010. GABAergic basal forebrain afferents innervate selectively GABAergic targets in the main olfactory bulb. *Neuroscience.* 170, pp.913-922.

12. Gutiérrez-Mecinas M, et al. 2008. Distribution of the A3 subunit of the cyclic nucleotide-gated ion channels in the main olfactory bulb of the rat. *Neuroscience*. 153-4, pp.1164-1176.
13. Gutiérrez-Mecinas M, et al. 2007. Migrating neuroblasts of the rostral migratory stream are putative targets for the action of nitric oxide. *European Journal of Neuroscience*. 26, pp.392-402.
14. Gutiérrez-Mecinas, M, et al. 2005. Soluble guanylyl cyclase appears in a specific subset of periglomerular cells in the olfactory bulb. *European Journal of Neuroscience*. 21, pp.1443-1448.
15. Gutiérrez-Mecinas, M, et al. 2005. Characterization of somatostatin and cholecystokinin-immunoreactive periglomerular cells in the rat olfactory bulb. *Journal of Comparative Neurology*. Wiley. 489, pp.467-479.
16. Gutierrez-Mecinas, M.; et al. 2005. Distribution of D2 dopamine receptor in the olfactory glomeruli of the rat olfactory bulb.902599 - *European Journal of Neuroscience*. 22-6, pp.1357-1367.
17. Crespo, C.; et al. 2003. Nitric oxide synthase containing periglomerular cells are GABAergic in the rat olfactory bulb. *Neuroscience Letters*. 349, pp.151-154.
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C.2. Research projects and grants

Selection of some of the grants obtained in the last years.

1. PID2021-127595OB-I00. Impacto de las experiencias adversas tempranas sobre el tálamo y el desarrollo de trastornos psiquiátricos. Ministerio de Ciencia e Innovación. Juan Nàcher Roselló. 2022-2025
2. RTI2018-098269-B-I00. La matriz extracelular cerebral en la depresión de modelos animales a pacientes. Ministerio de Ciencia e Innovación. Juan Nàcher Roselló.2019-2022
3. SAF2015-68436-R. Plasticidad de la inhibición perisomática de neuronas piramidales de corteza prefrontal: impacto del stress peripubertal e implicación en desórdenes psiquiátricos Ministerio de Economía y Competitividad. Juan Nàcher Roselló. 2016- 2018.

2 SAF2015-70355-REDT, RED OLFATIVA ESPAÑOLA: Olfato, cerebro y sociedad Ministerio de Economía y Competitividad. Laura López Mascaraque. (Instituto Cajal del CSIC). 2016-2017.

3 PROMETEO/2013/069, Plasticidad estructural de circuitos inhibitorios. implicación en esquizofrenia Generalitat Valenciana. Juan Nàcher Roselló. 2013-2016.

4 UV-INV-AE15-323004, Análisis de las alteraciones de los circuitos neuronales olfatorios en modelos de enfermedad de Parkinson. Universitat de València. Carlos Crespo Rupérez. 2015-2016

5 BFU2007-64130/BFI, Análisis de los mecanismos de acción del óxido nítrico en el bulbo olfatorio Ministerio de Educación y Ciencia. Dirección General de Investigación. Carlos Crespo Rupérez. (Universitat de València). 2007-2010.

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