MINISTERIO
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AGENCIA
ESTATAL DE
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CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION **Date:** 10 october, 2025

First name	José Luis		
Family name	Venero Recio		
Gender (*)	Male	Birth date (dd/mm/yyyy)	03/06/1963
ID number	08803769J		
e-mail	jlvenero@us.es	URL Web: https://www.ibis-sevilla.es/es/investigacion/neurociencias/envejecimiento-neuronal/	
Open Researcher and Contributor ID (ORCID) (*)		0000-0003-1137-8706	

(*) Mandatory

A.1. Current position

Position	Professor of Biochemistry		
Initial date	2010		
Institution	University of Seville		
Department/Center	Institute of Biomedicine of Seville (IBIS)		
Country	Spain	Teleph. number	+34-617950536
Key words			

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

Period	Position/Institution/Country/Interruption cause
2014-present	Responsible Investigator. Institute of Biomedicine (IBIS). Seville
2017-present	Head of Department of Biochemistry and Molecular Biology. University of Seville
2021-present	Elected member of the Research Commission. University of Seville

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD in Pharmacy	University of Seville. Spain	1990
B.A. in Pharmacy	University of Seville. Spain	1986

(Include all the necessary rows)

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

I earned my degree in Pharmacy in 1986 and completed my PhD in 1990 at the University of Seville, Spain. Following this, I joined Franz Hefti's laboratory at the Andrus Gerontology Center, University of Southern California, for postdoctoral training focused on the biological effects of neurotrophins under disease conditions. Currently, I am a Professor of Biochemistry and Molecular Biology at the University of Seville and the Principal Investigator of the Neuronal Aging Group at the Institute of Biomedicine of Seville (IBiS). I served as a member of the Technical Commission for the Spanish National Program in the area of Biomedicine in 2016, 2021, and 2024. Notably, in January 2025, I joined the Spanish Research Agency (AEI) as a Program Officer ("Gestor") in the Biomedicine Area (Diseases of the central nervous system). From 2009 to 2015, I served as an editor of the Journal of Neurochemistry. I have been honored by the Research Commission of the Universidad Internacional

de Andalucía (UNIA) with the opportunity to organize the Biomedical Workshop titled "The Role of Microglia in Neurodevelopmental and Neurodegenerative Disorders." This event will take place in September 2025 at the Antonio Machado Campus of UNIA in Baeza. The workshop will bring together leading national and international researchers in the field of microglia, fostering discussions on the latest advancements and insights https://www.unia.es/investigacion/workshops-internacionales/workshops-biomedicina. Since 2003, our research group has consistently secured public grant funding from Spain, and internationally, we have been awarded two projects by the Michael J. Fox Foundation for Parkinson's Research. In collaboration with Dr. Joseph, we identified non-apoptotic roles of killer caspases 8, 3, and 7 in controlling pro-inflammatory neurotoxic activation of microglia, a finding that gained international recognition with its publication as a full article in Nature. More recently, we uncovered: i) significant roles of galectin-3 in regulating brain immune responses during neurodegeneration, ii) the potential of combined radiotherapy and arginine depletion to completely eliminate non-arginine-auxotrophic glioblastoma tumors. These discoveries have laid the groundwork for clinical trials targeting Alzheimer's disease and glioblastoma, respectively. Our group maintains active collaborations with both national and international research teams, fostering a strong network for advancing scientific innovation.

Talented researchers incorporated to the group through highly competitive contracts (2015-present): Dr. Miguel Ángel Burguillos García: Ramón y Cajal Contract (year of incorporation: 2019); Dr. Manuel Sarmiento Soto: Marie Curie Contract (year of incorporation: 2018); Dr. Antonio Boza Serrano: Juan de la Cierva Contract (incorporación) (year of incorporation: 2021); Rocío Talaverón Aguilocho: Juan de la Cierva Contract (incorporación) (year of incorporation: 2022); Juan García Revilla: Distinguished Investigator position at the University of Seville (december 2024).

Field relevant bibliometric indicators: over 125 international research articles; h-index: 54 (Scholar), 48 (Scopus); Citations: 10788 (Scholar), 7781 (Scopus). Since 2014, 54 published articles acting as senior or corresponding author, among others, in: 1 Nature Neuroscience, 3 Acta Neuropathologica, 3 Cell Death and Disease, 1 Brain Behav Immunity, 2 Journal of Neuroinflammation, 2 Cell Reports, 1 J. Parkinson Dis.; 1 Prog Neuropsychopharmacol Biol Psychiatry (I.F: 5.201), etc

Supervised Doctoral theses: 9 plus 3 ongoing

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

C.1. Publications *(see instructions)*: A selection from 54 articles published since 2014. For full track of records, see https://pubmed.ncbi.nlm.nih.gov/?term=venero+jl&sort=date&size=100

1. Stratoulias V, Ruiz, ……., Heneka MT, Tremblay MÈ, Blomgren K, **Venero JL**, Joseph B. ARG1-expressing microglia show a distinct molecular signature and modulate postnatal development and function of the mouse brain. **Nature Neuroscience**. 2023 May 11. doi: 10.1038/s41593-023-01326-3. Senior Authorship. Impact Factor: 21.3

2. García-Revilla J, Ruiz R, …….., Deierborg T, Joseph B, de Pablos RM, Rodríguez-Gómez JA, **Venero JL**. Dopaminergic neurons lacking Caspase-3 avoid apoptosis but undergo necrosis after MPTP treatment inducing a Galectin-3-dependent selective microglial phagocytic response. Cell Death & Disease. 2024. 15(8):625. doi: 10.1038/s41419-024-07014-9
Senior Authorship. Impact Factor: 9.3

3. García-Revilla J, Boza-Serrano A, Jin Y, Martinsson I, Klementieva O, Ruiz R, Aprile FA, Deierborg T, **Venero JL**. Galectin-3 shapes toxic alpha-synuclein strains in Parkinson's Disease. Acta Neuropathologica 2023 146(1):51-75. doi: 10.1007/s00401-023-02585-x. Impact Factor: 15.88. *, Senior Authorship.

4. Alonso-Bellido IM, Posada-Pérez M, ……**Venero JL**, Ruiz R. Microglial Caspase-3 is essential for modulating hippocampal neurogénesis. Brain Behav Immun. 2023, 112:206-219. doi: 10.1016/j.bbi.2023.06.013. Senior Authorship. Impact Factor: 9.3.

5. Boza-Serrano, A; Vrillon, A; Minta, …….Paquet C, **Venero, JL***, Blennow, Kaj*, Deierborg, Tomas*. Galectin-3 is elevated in CSF and is associated with Aβ deposits and tau aggregates in brain tissue in Alzheimer's disease **Acta Neuropathologica** 2022, ;144(5):843-859. *, Senior Authorship. Impact Factor: 12.7.

6. Boza-Serrano A, Ruiz R, Sanchez-Varo R, ……Vitorica J*, **Venero JL***, Deierborg T*. Galectin-3, a novel endogenous TREM2 ligand, detrimentally regulates inflammatory response in Alzheimer's disease. **Acta Neuropathologica** 2019, 138(2):251-273. doi: 10.1007/s00401-019-02013-z. *, Senior Authorship. Impact Factor: 14.25

As of January/February 2022, this highly cited paper received enough citations to place it in the top 1% of the academic field of **Neuroscience & Behavior** based on a highly cited threshold for the field and publication year.

Data from Essential Science Indicators

This article was awarded the University of Seville Prize for Articles of Special Relevance. Role in this article. A consortium was created leaded by Tomas Deierborg (Lund University), Javier Vitorica (IBIS) and Jose Luis Venero (IBIS) to determine the role of galectin-3 in Alzheimer´s disease pathology. All experiments and conclusions were leaded by the three PIs and senior authorship shared.
Editor´s choice Science: https://science.sciencemag.org/content/364/6442/747.4
Editor's choice Science Translational Medicine: https://stm.sciencemag.org/content/11/491/eaax8310
This article has been cited/commented in several media: Alzorum, AlphaGalileo, Eurekalert, Seeking Alpha, Science Daily, Long Room, The Medical News, Fight Aging, etc
This article ranks 15th among the most cited ones published in Acta Neuropathologica considered for the elaboration of the 2020 Impact Factor (source: Journal of Citation Reports).

7. Buchrieser J, Oliva-Martin MJ, Moore MD, Long JCD, Cowley SA, Perez-Simón JA, James W and **Venero JL**. RIPK1 is a critical modulator of both tonic and TLR-responsive inflammatory and cell death pathways in human macrophage differentiation. **Cell Death and Disease** 2018 9:973, doi 10.1038/s41419-018-1053-4 Impact Factor: 6.30. *, Senior Authorship.

8. Stratoulias V, **Venero JL**, Tremblay ME, and Joseph B. Microglial subtypes: diversity within the microglial community. **EMBO Journal** 2019 38(17):e101997. doi: 10.15252/embj.2019101997. Impact Factor: 9.88

As of January/February 2022, this highly cited paper received enough citations to place it in the top 1% of the academic field of **Neuroscience & Behavior** based on a highly cited threshold for the field and publication year.

Data from Essential Science Indicators

This article ranks 4th among the most cited ones published in EMBO Journal considered for the elaboration of the 2020 Impact Factor (source: Journal of Citation Reports). The article was on the top 10 most read article on the journal website for over a year.

9. Hajji N, Garcia-Revilla J, Sarmiento Soto M, ……..Anichini G, Tzakos AG, Crook T, O'Neill K, Scheck AC, **Venero JL**, Syed N. Arginine deprivation alters microglia polarity and synergises with radiation to eradicate non arginine auxotrophic glioblastoma tumors. **Journal of Clinical Investigation** 2022:e142137. doi: 10.1172/JCI142137. Impact Factor: 15.9

This article was awarded the University of Seville Prize for Articles of Special Relevance. All in vivo experiments of this article were performed in our laboratory. Two members of our lab: Juan García Revilla and Manuel Sarmiento share first authorship with Nabil Hajji. This article has been cited/commented in several media: AlphaGalileo, MedicalXPress, Health Europa, Bionity, Pharmatutor, The Medical News, EurekAlert, etc. Human Clinical Trial are expected to start soon based on the promising results of this study.

10. Shen X, Burguillos MA, Osman AM, ……. **Venero JL**, Blomgren K and Joseph B. Glioma-induced caspase-3 inhibition in microglia promotes a tumour-supportive phenotype. **Nature Immunology** 2016; 17(11):1282-1290. doi: 10.1038/ni.3545. Impact Factor: 20.47

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

1. Explorando el papel de la interleucina-34 en el neurodesarrollo y la neurodegeneracion. Ministerio de Ciencia, Innovación y Universidades. PID2024-157400OB-I00 (Resolución provisional). 01/09/2025/31/08/2028. 400.000€ (resolución provisional).

2. Descifrando el potencial terapéutico de la IL-34 en la patogénesis y tratamiento de la enfermedad de Alzheimer. Junta de Andalucía (Consejería de Universidad , Investigación e Innovación) (DGP_PIDI_2024_01154). 98.000€ (resolución provisional)

3. Descifrando los subtipos de microglía deletérea potencialmente relevantes en enfermedades neurodegenerativas". Agencia Española de Investigación. PID2021-124096OB-100. (Instituto de Biomedicina de Sevilla). 01/09/2022-31/08/2025. 290.400 €.

4. Papel de la galectina-3 en la respuesta inmune asociada a enfermedades del sistema nervioso central. Implicación en enfermedades neurodegenerativas y glioblastoma multiforme. Ministerio de Ciencia, Innovación y Universidades. RTI2018-098645-B-I00. (Instituto de Biomedicina de Sevilla). 01/01/2019-31/12/2021. 193.600 €.

5. Modulación de la activación microglial asociada a neurodegeneración. Relevancia en enfermedades neurodegenerativas. (Instituto de Biomedicina de Sevilla). Junta de Andalucía (Consejería de Conocimiento, Investigación y Universidad) (P18-RT-1372). 01/01/2021-31/12/2023. 140.352 €.

6. GB-AP2, a novel blood- to- brain innumotherapy for breast cancer brain metastases. METAPREMIO 21. (Instituto de Biomedicina de Sevilla)11/01/22-10/01/2024

7. Papel de la galectina-3 en el envejecimiento neuronal. Junta de Andalucía (Consejería de Economía y Conocimiento). (Instituto de Biomedicina de Sevilla). 01/02/2020-31/01/2022. 70.000 €.

8. A novel immunotherapy against brain metastasis. Horizon 2020 Framework Programme, European Commission, Research Executive Agency. Marie Curie Actions. Grant Agreement (GA) No: 795695 (University of Seville). 01/02/2019-31/01/2021. 170.121,6 €.

9 Funciones apoptóticas y no apoptóticas de las caspasas asesinas en el sistema nervioso central en condiciones normales y patológicas. Ministerio de Economía y Competitividad. SAF2015-64171-R (Instituto de Biomedicina de Sevilla). 01/01/2016-31/12/2018. 275.880 €.

10 Role of galectin 3 in Parkinson's disease pathogenesis. The Michael J. Fox Foundation for Parkinson's Research. (Instituto de Biomedicina de Sevilla). 22/12/2015-21/12/2016. 92.950 €.

C.4. Contracts, technological or transfer merits,

- Effect of galectin-3 and its role in experimental models of Parkinson´s disease and Alzheimers Disease´. Lund University. 31000€
- Search for novel therapeutic targets for clinical intervention in Alzheimer´s disease. Fundación ACE. 26/05/21-26/05/2024. 21000€

C.5. Honor and awards

2024: Ibero-American Academy of Pharmacy Award

2022: Award for Research Work of Special Relevance

2011: "University of Seville-Endesa Research Awards" for the most impactful research work.