

Part A. PERSONAL INFORMATION

First name	María Victoria		
Family name	Llorens Martín		
Gender (*)	Female		
Social Security, Passport, ID number	51453937-Q		
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Open Researcher and Contributor ID (ORCID) (*)	0000-0001-9129-5198		

A.1. Current position

Position	Senior Tenured researcher (<i>Investigador Científico de los OPIS</i>)		
Initial date	11/16/2023		
Institution	Spanish National Research Council (CSIC)		
Center	<u>Centro de Biología Molecular Severo Ochoa (CBMSO)</u>		
Country	Spain	Telephone number	+34-911964632
Key words	Adult hippocampal neurogenesis, neurodegenerative diseases, aging.		

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

Period	Position/Institution/Country/Interruption cause
2003 – 2004	Beca Introducción a la investigación / Cajal Institute (CSIC) / Spain
2005 – 2009	JAE_PRE2004' predoctoral fellowship / Cajal Institute (CSIC) / Spain
2010 – 2013	JAE_DOC2009' postdoctoral researcher / CBMSO (CSIC) / Spain
2014 – 2016	Juan de la Cierva' postdoctoral researcher / CBMSO (CSIC) / Spain
2015	The Japan Society for the Promotion of Science postdoctoral fellowship / University of Tsukuba / Japan
2017 – 2021	Ramón y Cajal contract / Universidad Autónoma de Madrid (UAM) / Spain
2021 – 2023	Científico Titular de los OPIS / CBMSO (CSIC) / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
BSc in Biology	<i>Universidad Complutense de Madrid (UCM)</i>	2004
MSc in Neurosciences	<i>UCM</i>	2006
PhD In Neurosciences	<i>UCM ("Sobresaliente Summa Cum Laude")</i>	2009

Part B. CV SUMMARY

I received my PhD from the UCM in 2009 for my research on the effects of physical exercise on adult hippocampal neurogenesis (AHN) at the Cajal Institute. In 2010, I joined Prof. Jesús Ávila's lab at the Center for Molecular Biology "Severo Ochoa" (CBMSO) as a postdoctoral fellow. During that period, I was awarded two postdoctoral fellowships (JAEDoc-2009 and Juan de la Cierva-2012) and investigated AHN alterations in the brains of murine models of Alzheimer's disease (AD). In 2015, I was awarded a "Japan Society for the Promotion of Science (JSPS) Postdoctoral fellowship for foreign researchers" to undertake a research period at the University of Tsukuba (Japan). In 2016, I set up my independent laboratory, which focuses on the basic biology and neuroprotective potential of AHN for the treatment of various diseases. In 2017, I was granted a Ramón y Cajal tenure-track contract, and, in September 2020, I was awarded a tenured researcher position as *Científico Titular* at the CBMSO. In November 2022, I secured a permanent position as *Investigador Científico* at the CBMSO. Since the establishment of my own group ("Adult neurogenesis and neurodegenerative diseases"), I have coordinated prestigious international grants, including an **ERC Consolidator Grant (ERC-CoG-2020)**, a BrightFocus Foundation (USA) Alzheimer's disease Research Grant 2024, 3 Alzheimer's Association (USA) grants, and one Association



for Frontotemporal Degeneration (USA) grant, as well as a number of national research grants, **as principal investigator**. Since 2016, my lab has published **35 papers (25 as last and corresponding author)**. Some of these studies have been published in **Science, Nature Medicine, Nature Protocols, and EMBO J**. Two studies recently published by our group (Terreros-Roncal et al., *Science*, 2021; Moreno-Jiménez et al., *Nature Medicine*, 2019), which demonstrated the occurrence of adult neurogenesis in humans, attracted significant interest from the scientific community (a News and Views review in *Nature Medicine*, a *Perspectives in SCIENCE*, and two Editorials in *Nature* and *Nature Reviews Neurology*) and the media (*The Scientist*, *The Scientific American*, *The Guardian*, *Le Monde*, *Il Corriere della sera*, *El Mundo*, *El País*, *La Razón*, and *ABC*). These papers have contributed to the consolidation of my group as an international reference in the field of adult neurogenesis. I have received numerous **Research Awards (Spain National Young Researcher Award “Gabriela Morreale in Medicine and Health Sciences (2022), considered the **most important Research Award in Spain**”;** Boehringer-Ingelheim/FENS Research Award (2024); Pfizer Foundation Young Investigator Award (2022); Spanish Royal Academy of Medicine Translational Medicine Award (2022); CIBERNED Young Investigator Award (2014); “Miguel Catalán” Young Investigator Award (2019); and “Young Female Talent Award of the Spanish Royal Academy of Sciences (2019)). I am a full member of the **Spanish Young Academy, European Academy, and AcademiaNet**. I serve as a member of the International Research Grant Program (IRGP) Council for the Alzheimer’s Association (USA), and of the **Scientific and Technical Committee of the Spanish State Research Agency (AEI)**, which is the permanent advisory and collegiate body of the Agency.

Part C. RELEVANT MERITS

C.1. Quality indicators of scientific production (Google Scholars)

Total citations: **6589**. h-index: **39** (2019–2024: **28**). i10-index: **54** (2019–2024: **50**). Number of citations per element: **96.89**. Number of publications: **68**. As last author: **25**. Number of completed doctoral theses supervised: **4**. Number of ongoing doctoral theses being supervised: **3**. Sexenios de Investigación acreditados por la CNEAI: **3**.

C.2. Publications. Total number of publications in the last 10 years: **39**.

<https://pubmed.ncbi.nlm.nih.gov/?term=llorens-martin+m&sort=date>.

Selected publications (10):

[1] Impact of neurodegenerative diseases on human adult hippocampal neurogenesis. Terreros-Roncal J, Moreno-Jiménez EP, Flor-García M, Rodríguez-Moreno CB, Trincherro MF, Cafini F, Rábano A, **Llorens-Martín M**. *Science*. 2021. Oct 21:eabl5163. **IF: 63.71. Corresponding author. Q1. D1**. Citations: 186. Perspectives (Science); Comment (Nature Reviews Neurology); Research Highlight (Nature Neuroscience).

[2] Adult hippocampal neurogenesis is abundant in neurologically healthy subjects and drops sharply in Alzheimer’s disease patients. Moreno-Jiménez E.P; Flor-García M; Terreros-Roncal J; Rábano A, Cafini F, Pallas-Bazarra N, Ávila J, **Llorens-Martín M**. *Nature Medicine*. 2019 Apr; 25(4): 554-60. **IF: 36.13. Corresponding author. *Citations: 1354. Q1. D1**. ***News and Views in *Nature Medicine*; Editorial in *Nature* and *Nature Reviews Neurology*. International (*The Scientist*, *The Scientific American*, *The Guardian*, *Le Monde*, *STAT News*, *Il Corriere della sera*) and national press media. Four Exceptional rates at F1000Prime.

[3] Unraveling human adult hippocampal neurogenesis. Flor-García M; Terreros-Roncal J; Moreno-Jiménez E.P; Ávila J; Rábano A; **Llorens-Martín M**. *Nature Protocols*. 2020 Feb;15(2):668-693. **IF: 10.41. Corresponding author. Q1. D1**. Citations: 89.

[4] Progression of Alzheimer's disease parallels unusual structural plasticity of human dentate granule cells. Márquez-Valadez B, Rábano A, **Llorens-Martín M**. *Acta Neuropathologica Comm*. 2022. Aug 29;10(1):125. **IF: 8.22. Corresponding author. Q1. D1**. Citations: 9.

[5] Novel function of Tau in regulating the effects of external stimuli on adult hippocampal neurogenesis. Pallas-Bazarra N, Jurado-Arjona J, Navarrete M, Esteban JA, Hernández F,



- Ávila J, **Llorens-Martín M**. *The EMBO Journal*. 2016 Jul 1; 35 (13): 1417-36. **IF: 10.56**. **Corresponding author. Q1. D1**. Citations: 99.
- [6] Azithromycin preserves AHN and behavior in a mouse model of sepsis. Rodríguez-Moreno CB; Cañeque-Rufo H; Flor-García M; Terreros-Roncal J; Moreno-Jiménez EP; Pallas-Bazarra N; Bressa C; Larrosa M; Cafini F*; **Llorens-Martín M***. *Brain Behavior and Immunity*. 2024. Jan 9;117:135-148. **IF: 15.1**. **Corresponding author. Q1. D1**.
- [7] GSK-3 β orchestrates the inhibitory innervation of adult-born dentate granule cells in vivo. Moreno-Jiménez EP, Flor-García M*, Hernández-Vivanco A*, Terreros-Roncal J, Rodríguez-Moreno CB, Toni N, Méndez P, **Llorens-Martín M**. *Cellular and Molecular Life Sciences*. 2023. Jul 23;80(8):225. **IF: 9.23**. **Corresponding author. Q1. D1**.
- [8] Absence of microglial CX3CR1 impairs the synaptic integration of adult-born hippocampal granule neurons. Bolós M; Perea JR; Terreros-Roncal J; Pallas-Bazarra N; Jurado-Arjona J, Ávila J; **Llorens-Martín M**. *Brain Behavior and Immunity*. 2018 Feb; 68:76-89. PMID: 29017970. **IF: 6.31**. Original manuscript. **Corresponding author. Q1. D1**. Citations: 101.
- [9] GSK-3 β overexpression causes reversible alterations on postsynaptic densities and dendritic morphology of hippocampal granule neurons in vivo. **Llorens-Martín M**, Fuster-Matanzo A, Teixeira CM, Jurado-Arjona J, Ulloa F, DeFelipe J, Rábano A, Hernández F, Soriano E, Ávila J. *Molecular Psychiatry*. 2013 Apr; 18(4): 451-60. PMID: 23399915. **Impact Factor: 15.15**. Original manuscript. **Quartile 1. Decile 1**. Number of citations: 140.
- [10] Activity-dependent reconnection of adult-born dentate granule cells in a mouse model of frontotemporal dementia. Terreros-Roncal J; Flor-García M*; Moreno-Jiménez EP*; Pallas-Bazarra N*; Rábano A; Sah N; van Praag H; Giacomini D; Schinder AF; Ávila J; **Llorens-Martín M**. *The Journal of Neuroscience*. 2019 Jul 17; 39(29): 5794-5815. PMID: 31133559. **Impact Factor: 6.07**. Original manuscript. **Corresponding author. Quartile 1. Decile 2**. Number of citations: 14.

C.3. Congresses and invited talks

More than **100** conference invitations, including several of the most relevant gatherings in neuroscience, among them following: the **Dual Perspectives session**, the **Society for Neuroscience (SfN)** (2019, USA); **Nanosymposium and Symposium presentation** at the **SfN** (2017, 2019, 2023); **Eurogenesis** (2013, 2016, 2019, and 2024, Bordeaux); the Spanish Society for Neuroscience (2013, 2015, 2019); **Brain Conference** (2022, London); **AGE2020** (2021, Madison); **Life Sciences Switzerland (LS2)** (2020, Zurich); **IBRO** (2019, Tsukuba, Japan); the **Mediterranean Society for Neuroscience** (2019, Marrakesh); **FENS** (2022, Paris; 2024, Vienna), **Euroglia** (2023, Berlin).

C.4. Research projects and grants

C.4.1. As principal investigator (total funding obtained ~€4 Million):

- 09/01/2024 – 08/31/2027**: Spanish Ministry of Science and Innovation: **Proyectos de Generación del conocimiento**. PID2023-146572OB-I00. PI: **María Llorens-Martín**. **€467,500**. Associated FPI contract: 01/01/2025 – 12/31/2029. **~€100,000**.
- 07/01/2024 – 06/30/2027**: **Alzheimer's disease Research Grant** (BrightFocus Foundation, USA), A2024021S. PI: **María Llorens-Martín**. **\$300,000**.
- 10/01/2021 – 09/30/2026**: **ERC Consolidator Grant 2020** (European Commission), ERC-CoG-2020-101001916. PI: **María Llorens-Martín**. **€1,994,375**.
- 09/01/2021 – 08/31/2024**: Spanish Ministry of Science and Innovation: **Programa Estatal I+D+i orientada a los retos de la sociedad**. PID2020-113007RB-I00. PI: **María Llorens-Martín**. **€305,000**. Associated FPI contract: 09/01/2022 – 08/31/2026. **€92,000**.
- 01/01/2017 – 12/31/2021**: Spanish Ministry of Economy and Competitiveness: **Ramón y Cajal contract RYC-2015-17189**. PI: **María Llorens-Martín**. **€308,600**.
- 01/07/2021 – 09/30/2022**: The Alzheimer's Association **RAPID Grant**, AARG-17-528125-RAPID. USA. PI: **María Llorens-Martín**. **\$49,990**.
- 01/01/2018 – 06/30/2021**: The Alzheimer's Association **2017 Research Grant**, AARG-17-528125. USA. PI: **María Llorens-Martín**. **\$150,000**.



01/01/2017 – 12/31/2017: The Association for Frontotemporal Degeneration (AFTD)'s 2016 Basic Research Pilot Grant. USA. PI: **María Llorens-Martín**. \$60,000.
06/01/2015 – 05/31/2017: The Alzheimer's Association 2015 New Investigator Research Grant: 2015-NIRG-340709. USA. PI: **María Llorens-Martín**. \$100,000.
01/01/2018 – 12/31/2020: Spanish Ministry of Economy and Competitiveness: Programa Estatal I+D+i orientada a los retos de la sociedad. SAF2017-82185-R. PI: **María Llorens-Martín**. €172,000. Associated FPI contract: 09/01/2019 – 08/31/2023. €92,000.
11/01/2019 – 10/31/2021: Spanish Ministry of Economy and Competitiveness: Subvenciones para la promoción de empleo joven e Implantación de la garantía juvenil en I+D+i 2018. PEJ2018-001725-A. Spain. PI: **María Llorens-Martín**. €39,200.
03/01/2018 – 02/28/2019: Comunidad de Madrid: Ayudas para la contratación de estudiantes predoctorales, Garantía Juvenil, convocatoria 2017. PEJD-2017-PRE/BMD-3439. Spain. PI: **María Llorens-Martín**. €25,000.

C.4.2. As student supervisor:

2018 – 2022: UAM. *Ayudas predoctorales FPI-UAM (Student: J. Terreros-Roncal)*. **2019 – 2023:** Fundación Tatiana Pérez de Guzmán. *Ayudas predoctorales para la realización de la tesis doctoral*. Student: Elena Moreno-Jiménez. **2023 – 2027:** Fundación Tatiana Pérez de Guzmán. *Ayudas predoctorales para la realización de la tesis doctoral*. Student: Ana V. Prádanos Senén. **2024 – 2028:** Ministerio de Ciencia, Innovación y Universidades. *Ayudas para la formación de profesorado universitario (FPU 2023)*. Student: M. Alonso-Moreno. **2023:** International Brain Research Organization. *Early Career Training Programme (ECTP) of IBRO 2023*. Researcher: M.F. Trincherro. **2023:** CIBERNED. *Ayudas Formación de CIBERNED 2023*. Researcher: B. Márquez-Valadez.

C.5. Honor and awards

2009: Extraordinary award 'Best Doctoral Dissertation' award, UCM, Madrid, Spain.
2013: Young Investigator Award, CBMSO, Madrid, Spain.
2013: National Young Investigator Award, CIBERNED, Spain.
2019: 'Miguel Catalán' Young Investigator Award for Scientific Research, Madrid, Spain.
2019: Young Female Talent in Biology, Spanish Royal Academy of Sciences.
2021: Full Member, Spanish Young Academy (2021–2026).
2022: Pfizer Young Investigator Award, Pfizer Foundation.
2022: Spain National Young Investigator Award "Gabriela Morreale" in Medicine and Health Sciences, Spanish Ministry of Research, Innovation and Universities.
2022: Translational Medicine Award, Spanish Royal Academy of Medicine.
2024: Boehringer-Ingelheim/FENS Research Award, Boehringer-Ingelheim Foundation and FENS.

C.6. Supervision of students

2013 – 2015: Ph.D. dissertation (N. Pallas-Bazarra). UAM, Spain. *Summa Cum Laude*. **2015.**
2017 – 2022: Ph.D. dissertation (J. Terreros-Roncal). UAM, Spain. *Summa Cum Laude*. **2022.**
2018 – 2023: Ph.D. dissertation (M. Flor-García). UAM, Spain. *Summa Cum Laude*. **2023.**
2018 – 2023: Ph.D. dissertation (EP. Moreno-Jiménez). UAM, Spain. *Summa Cum Laude*. **2023.**
Currently: Supervision of four ongoing Ph.D. theses: M. Gallardo-Caballero (FPI fellowship, started in Sept 2022), A. Prádanos Senén ('Fundación Tatiana Pérez de Guzmán' fellowship, started in Dec 2022); M. Alonso (FPU fellowship, started in January 2024).
2017: M.Sc. dissertation. UAM. Qualification: 9.4. September 2017. Student: M. Flor-García.
2018: B.Sc. dissertation. UAM. Qualification: 9.5. Undergraduate student: H. Cañeque Rufo.
2019: M.Sc. dissertation. UAM. Qualification: 9.5. July 2020. Graduate student: H. Cañeque Rufo.
2023: M.Sc. dissertation. UAM. Qualification: 10. *Summa Cum Laude*. June 2023. J. Molina.
2023: M.Sc. dissertation. University of Crete, Greece. Qualification: 10. *Summa Cum Laude*. Oct 2023. E. Kokosali.

C.7. Teaching activities



2016 – present: B.Sc. Degrees (Chemistry, Nutrition, Biology, and Biochemistry. UAM, Spain. Courses on Biochemistry and Molecular Neurobiology) and **M.Sc. seminars: Biomolecules and Cell Dynamics** (UAM, Spain); **Molecular Biomedicine** (UAM, Spain); **Neuroscience** (UCM, Spain); **Biochemistry, Molecular Biology and Biomedicine** (UCM, Spain); and **Advanced Cellular Therapy** (Universidad Francisco de Vitoria, Spain). 224 hours.

C.8. Commissions of trust

2010 – present: Ad hoc Reviewer for more than **45 international multi-disciplinary scientific journals**, including *Science*, *Molecular Psychiatry*, *Brain*, *Nature Aging*, and *Cell Stem Cell*, among others. **2011 – present: Panelist Reviewer** for **13 National Funding Agencies** (including the *Agencia Nacional de Evaluación Prospectiva*, the *Agencia Estatal de Investigación (AEI)*, and the '*Fundación Tatiana Pérez de Guzmán*, among others) and **17 International Funding Agencies** (including the European Research Council (ERC), the Alzheimer's Association, ANR (France), FRC (France), Netherland Science Agency, Neurological Foundation (Australia), Alzheimer Nederland, Ministerio della Salute (Italy), URED (Croatia), Science Foundation Ireland, FWO (Belgium), Alzheimer Research Foundation (Belgium), Israel Science Foundation, Kazajstan NCSTE, NWO Dutch Agency, Austrian Academy of Sciences, DFG Deutsche Forschungsgemeinschaft (German Research Foundation)). **Member** of the International Research Grant Program (IRGP) Council of the Alzheimer's Association (USA). **2014 – present: 11 Ph.D.** (Universidad del País Vasco (2019); UAM (2017 – 2019); *Collège de France* (2019); Universidad de Cantabria (2017)) and **6 M.Sc.** (UAM (2014 – 2018)) **evaluation panels.** **2023: Jury** of the **Spain National Investigator Awards.** **2023 – present:** Member of the **Scientific and Technical Committee of the AEI.**

C.9. Memberships of scientific societies

Founding member and member of the Executive Committee of the Spanish Network on Adult Neurogenesis (RENA). Member of the Society for Neuroscience (USA). Full Member of the Spanish Young Academy (2021 – 2026), European Academy (since 2022), and AcademiaNet (since 2022). Moreover, I serve as a member of the International Research Grant Program (IRGP) Council for the Alzheimer's Association (USA).

C.10. Selected Press and science divulgation (more than 100 interviews)

The Scientist (March 2019), **The Scientific American** (March 2019), **The Guardian** (March 2019), **Le Monde** (March 2019), **BBC** (March 2019), **STAT News** (March 2019), **Il Corriere della sera** (March 2019), **El Mundo** (March 2019, October 2021), **El País** (March 2019, November 2019, October 2021), **ABC** (March 2019, October 2021), **RTVE** (February 2013, March 2019, October 2021), **Investigación y Ciencia** (May 2012, November 2013, March 2019), **SINC Agency** (May 2012, February 2013, March 2019, October 2021), **EFE** (March 2012, October 2021), **La Vanguardia** (March 2019, October 2021), **Quo** (March 2019), **TeleMadrid** (March 2019), **COPE** (March 2019, October 2021), **Radio5** (March 2019, October 2021), **ONDACero** (March 2019, October 2021), and **SER** (March 2019, October 2021), among others.