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

First name	Diana		
Family name	López Barroso		
Gender (*)	Female	Birth date	06/06/1983
ID number	77456563S		
e-mail	dlopbarroso@uma.es	URL Web	
Open Researcher and Contributor ID (ORCID)		0000-0002-8938-1959	

A.1. Current position

Position	Ramón y Cajal researcher		
Initial date	01/12/2021		
Institution	University of Malaga		
Department/Center	Psychobiology	Faculty of Psychology and Speech Language Therapy	
Country	Spain	Teleph. number	626827286
Key words	Cognitive neuroscience; Language processing; Neuropsychology; Reading; Neuropsychology; Neuroimage; Rehabilitation		

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

Period	Position/Institution/Country/Interruption cause
2019-2021	Emerging researcher FEDER 2014-2020/UMA/Spain
2019-2019	Postdoctoral researcher Juan de la Cierva Incorporación/Instituto de Investigación Biomédica de Malaga -IBIMA/Spain
2018-2019	Postdoctoral researcher Incorporation of Doctors/UMA/Spain
2016-2018	Postdoctoral researcher Juan de la Cierva Formación /UMA/Spain
2014-2015	Postdoctoral researcher/Institut du Cerveau et de la Moelle épinière, ICM, Salpetriere Hospital/Paris (France)
2013	Research Assistant/University of Barcelona/Spain
2008-2012	Predoctoral researcher (Formación de Investigadores fellowship)/University of Barcelona/Spain
2007	Research Assistant/University of Barcelona/Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
PhD Biomedicina	University of Barcelona	2013
Master Degree Neuroscience	University of Barcelona	2009
Bachelor in Psychology	University of Malaga	2006

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

I am a Ramón y Cajal researcher at the University of Malaga (UMA). My research trajectory is highlighted by: 1) interdisciplinary research in cognitive psychology and clinical neuroscience with a strong translational component; 2) a track record of high-quality and impactful publications; 3) involvement in scientific outreach, teaching, and mentoring; 4) international recognition. I earned my Psychology degree at UMA and completed my PhD at the University of Barcelona, focusing on individual differences in learning new words in healthy adults through interdisciplinary methods. During this initial phase, I received training in the design and analysis of experiments in psychology, as well as in neuroimaging techniques such as magnetic resonance imaging (MRI). Later, I accepted a postdoctoral position at the Brain and Spine Institute at Pitié-Salpêtrière Hospital in Paris (France) starting in 2014. There, I conducted advanced functional connectivity analyses, characterizing the brain plastic effects of reading acquisition across different life stages. Subsequently, I secured various competitive postdoctoral

contracts including Juan de la Cierva Formación and Juan de la Cierva Incorporación (see A2 section), through which I joined the Cognitive Neurology and Aphasia Unit (UNCA, UMA), the only research unit in Spain dedicated to studying neuroscience-based treatments for language recovery in post-stroke aphasia. I collaborated closely with specialists in neurology, speech therapy, and computer science, allowing me to specialize in studies involving brain-damaged patients, clinical neuroimaging, and neuropsychological assessments. Since starting my Ramón y Cajal contract in 2021, I have established an independent research group at UMA. My current research, which has secured significant funding, focuses on understanding and predicting cognitive differences in healthy and clinical populations, particularly in complex linguistic tasks and post-stroke aphasia patients' language recovery, emphasizing brain anatomy, function, and behavioral modulation.

My research trajectory is characterized by high-quality scientific output. I have published 31 articles in prestigious indexed international journals across multidisciplinary, psychology, and neuroscience fields, as well as 4 book chapters (cites: 1264, h index: 16; i10-index: 22). My trajectory has recently been awarded with the **Premio Nacional de Investigación para Jóvenes 2022 "Clara Campoamor",** the highest scientific recognition in Spain for researchers under 40 years of age. Furthermore, I received the 2021 Emerging Investigator Award from the Spanish Society of Experimental Psychology (SEPEX), and the 2023 Muy Interesante Award for Women in Science. I hold several editorial roles in international journals, I am a member of the Spanish Society of Experimental Psychology (SEPEX) board, regularly review peer-reviewed international journals, and have been part of thesis committees. I am part of review panels for the Agencia Estatal de Investigación (AEI) and the Andalusian Regional Government. I have been appointed as the scientific director of the VII "Blas Cabrera" Summer School on Introduction to Research, Teaching, and Scientific Innovation 2023 by the Ministry of Science and Innovation. I have been a jury member for the Premios Nacionales de Investigación in the 2023 edition. Additionally, I have accumulated leadership experience through the supervision of Master's and Bachelor's final projects, am currently supervising three doctoral theses, and have been teaching at the UMA's Psychology Bachelor's program since 2016 (80h/year-maximum allowed). I have also been a lecturer in the Official Master's Program in Health Psychology at the UMA during the academic year 2023/2024. Additionally, since 2016, I have been a lecturer (40h/year) in the University's own Master's Program in Cognitive Sciences (UMA). In the past two years, my dedication to science outreach has been evident through my active participation as an invited speaker in multiple events such as Women in Science, Talent Woman Congress or Pint of Science Festival. Additionally, I was honored with an invitation from the Joint Research Center (JRC) of the European Union to visit their headquarters in Ispra (Italy) as a distinguished young researcher. Finally, one of my articles has received the IG Nobel Prize 2023 from Harvard University.

Part C. RELEVANT MERITS *(sorted by typology)*
C.1. Publications *(a selection)*

1 Book Chapter. Torres-Prioris MJ, Berthier ML, **López-Barroso D**. Efficacy of TDCs in post-stroke aphasia recovery. In: "An Insight into Neuromodulation: Current Trends and Future Challenges". Nova Science Publisher. Accepted. 2023

1 Scientific paper. López-Barroso, D; Paredes-Pacheco, J; Torres-Prioris, MJ; Dávila, G; Berthier, ML (AC). 2023. Brain structural and functional correlates of the heterogenous progression of mixed transcortical aphasia. Brain Structure and Function. 228-5, pp.1347-1364.1. **(1/5).** DOI:10.1007/s00429-023-02655-6
2 Scientific paper. Dávila, G; Torres-Prioris, MJ; **López-Barroso, D**; Berthier, ML (AC). 2023. Turning the Spotlight to Cholinergic Pharmacotherapy of the Human Language System. CNS Drugs. Jul;37(7):599-637.**(3/4).**DOI:10.1007/s40263-023-01017-4.
3 Scientific paper. Orpella, J; Assaneo, MF (AC); Ripollés, P; Noejovich, L; **López-Barroso, D**; De Diego-Balaguer, R; Poeppel, D. 2022. Differential activation of a fronto-parietal network explains population-level differences in language learning. Plos Biology. 20-7, pp.e3001712. **(5/7)**. DOI: 10.1371/journal.pbio.3001712.
4 Scientific paper. López-Barroso, D. (AC); Thiebaut de Schotten M; Morais J; Kolinsky R; Braga LW; Guerreiro-Tauil A; Dehaene S; Cohen, L. 2020. Impact of literacy on the functional connectivity of vision and language related networks. NeuroImage.213-116722.**(1/8).**DOI: 10.1016/j.neuroimage.2020.116722

5 Scientific paper. Torres-Prioris, M.J; **López-Barroso, D**; Càmara, E; Sedeño, L; Berthier, M.L; Ibáñez, A; García, A. 2020 (AC). Neurocognitive signatures of phonemic sequencing in expert backward speakers. Scientific Reports. 10. ISSN 2045-2322. **(2/7).** DOI: 10.1038/s41598-020-67551-z

6 Scientific paper. Dávila, G (AC); Moyano, MP; Berthier, ML; Edelkraut, L; Moreno-Campos, L; Torres-Prioris, MJ; **López-Barroso, D**. 2020. Pharmacotherapy of Traumatic Childhood Aphasia: Beneficial Effects of Donepezil Alone and Combined with Intensive Naming Therapy. Frontiers in Pharmacology. 11-1144. **(7/7).** DOI: 10.3389/fphar.2020.01144

7 Scientific paper. Torres-Prioris, MJ*; **López-Barroso, D*** (AC); Roé-Vellvé, N; Paredes Pacheco, J; Dávila, G; Berthier, ML. 2019. Repetitive verbal behaviors are not always harmful signs: Compensatory plasticity within the language network in aphasia. Brain and Language. 190:16-30. **(1/6)** (*first author and AC). DOI: 10.1016/j.bandl.2018.12.004

8. Scientific paper. López-Barroso, D, Cucurell, D, Rodríguez-Fornells, A, De Diego-Balaguer, R. Attentional effects on rule extraction and consolidation from speech. Cognition. 2016 Jul;152:61-69. **(1/4).**DOI:10.1016/j.cognition.2016.03.016.

9 Scientific paper. López-Barroso, D (AC); Ripollés, P; Marco-Pallarés, J; Mohammadi, B; Münte, T; Bachoud-Lévi, A.; Rodriguez-Fornells, A; De Diego-Balaguer R. 2015. Different brain networks underlying word learning revealed by independent component analysis. Neuroimage.110, pp.182-193. (1/8). DOI: 10.1016/j.neuroimage.2014.12.085

10 Scientific paper. López-Barroso, D. (AC); Catani, M; Ripollés, P; Dell'Acqua, F; Rodríguez-Fornells, A; De Diego-Balaguer, R. 2013. Word learning is mediated by the left arcuate fasciculus Proceedings of the National Academy of Sciences.110-32, pp.13168-13173. **(1/6).** DOI: 10.1073/pnas.1301696110

C.2. Congress (invited conference, oral presentation, poster)

1. Invited conference: López-Barroso, D. Opening talk in I Congreso de Educación, Ciencia e Innovación. Diputación de Málaga y Fundación Unicaja. 6 June 2023, Malaga (Spain).
2. Invited conference "Emerging Research Talent Award": López-Barroso, D. Understanding the plasticity of the language system. International APPE-SEPEX Meeting. 5-7 May 2022, Faro (Portugal).
3. Oral presentation: López-Barroso, D. Procesado de imagen de resonancia magnética: aplicaciones de investigación en neurociencia cognitiva y clínica. 36 Congreso Nacional de la Sociedad Española de Radiología Médica (SERAM). 25-28 May 2022, Malaga (Spain).
4. Oral presentation: Dávila G, Torres-Prioris MJ, Berthier ML, **López-Barroso D**. Beneficial effects of treating traumatic childhood aphasia with donepezil alone and in combination with intensive naming therapy. IV Congreso Iberoamericano de Neuropsicología, May 27-29 2021
5. Poster: López-Barroso D, Paredes-Pacheco J, Torres-Prioris MJ, Dávila G, Berthier ML. Neural substrates of the heterogenous evolution of mixed transcortical aphasia. Society for the Neurobiology of Language Annual Meeting (SNL 2023), Palais du Faro, Marseille (France), October 24-26, 2023.
7. Poster: Hohl A, Berthier ML, Torres-Prioris MJ, **López-Barroso D**. Uncovering the Neural Mechanisms of Verbal Repetition: An ALE Analysis of Neuroimaging Studies Investigating Repetition of Words and Pseudowords. Architectures and Mechanisms for Language Processing Conference (AMLAP23). San Sebastián (Spain), August 31 - September 2, 2023.

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. Human Neurocognition through Responsible Artificial Intelligence (MOTHERING). Convocatoria de Ayudas a Planes de Investigación en Inteligencia Artificial, Ministerio de Universidades. PI: María Ruz (University of Granada). 2024-2026. Requested amount: 2.000.000€. Participation: collaborator researcher. Requested amount: 2.000.000 €. Project under evaluation.

2. PID2021 127617NA-I00. Understanding inter-individual differences in word learning through neuroimaging and neuromodulation (DIFFLEARN). Proyectos de Generación de Conocimiento, Ministerio de Ciencia e Innovación. Amount granted: 126.626,5 € and a 4-year predoctoral contract. **PI: Diana López Barroso** (University of Malaga).

3. ProyExcel_00744. Mecanismos cerebrales y cognitivos de los errores del habla en afasia. Proyectos de I+D+i en universidades y entidades públicas de investigación, Plan Andaluz de Investigación,

Desarrollo e Innovación (PAIDI 2020). PI: Javier García-Orza (UMA). 2022-2024. Participation: team member. Amount granted: 47.389, 20€.

4. RYC2020-029495-I. Neural correlates of word learning and language recovery in healthy and post-stroke aphasia persons. Proyecto Ramón y Cajal 2020, Ministerio de Ciencia e Innovación. **PI: Diana López-Barroso** (UMA). 2021-2026. Amount granted: 42.000 €.

5. Proyecto para la actividad investigadora de beneficiarios del programa Ramón y Cajal. Plan Propio Universidad de Málaga. 2022-2026. **PI: Diana López Barroso**. Amount granted: 50.000 €.

6. PI16/01514. Study of the efficacy and brain reorganization after combined treatment with Donepezil, intensive rehabilitation and transcranial direct current stimulation in chronic aphasia. Proyectos FIS, Instituto de Salud Carlos III, Ministerio de Economía y Competitividad. Reference:. PI: Marcelo Berthier. Contribution: team member. Amount granted: 131.648 €.

7. PY20_00501. Telerrehabilitación en Afasia. Proyectos de I+D+i en universidades y entidades públicas de investigación, Plan Andaluz de Investigación, Desarrollo e Innovación (PAIDI 2020). PI: Guadalupe Dávila. 2021-2023. Contribution: team collaborator. Amount granted: 43.390 €

8. UMA18-FEDERJA-221. Brain markers of response to post-stroke chronic aphasia treatments: towards an individualized approach to the enhancement of neuroplasticity. Proyectos de Generación de Conocimiento "Frontera", FEDER Andalucía 2014-2020. **PI: Diana López-Barroso** (University of Malaga). 2019-2021. Amount granted: 72.740 €.

9. **PPIT.UMA.B1.2017/35.** Lateralization of the dorsal tract as an anatomical predictor of word learning mediated by non-invasive brain stimulation in healthy subjects. Proyectos para jóvenes investigadores, Plan Propio de la UMA. **PI: Diana López-Barroso**. 2018-2020. Amount granted: 4.000 €.

10. ERC-2012-StG_20111124-313841. Tuning attention during Language Learning. ERC Starting Grant. European Commission, European Research Council (ERC).PI: Ruth de Diego Balaguer(University of Barcelona). 2013-2018. Contribution: team member. Amount granted: 1.485.600 €.

C.4. Contracts, technological or transfer merits.

Contracts with companies: Neuroimaging postprocessing in patientis with Parkinson disease. Reference: 8.06/5.75.5517. Company: Institut de Recerca Hospital de la Santa Creu i Sant Pau, Barcelona. 15/01/2020-14/01/2022. Amount granted: 25.000€.

Supervisor and responsible for research contracts:
1. **FPI contract.** Associated project: PID2021 127617NA-I00. Full time contract. 01/12/2023-30/11/2028; **2. Senior technician.** Associated project: PID2021-127617NA-I00. Full time contract. 24/05/2023- 23/05/2024; **3. Research assistant**. Associated project: RYC2020-029495-I. Full time contract. 16/06/2022 - 12/04/2023.

Refereeing and editorial experience: 1. Associate director of "Psychological Writing" Journal, UMA (since October 2022); **2**. Academic Editor in PlosOne (since November 2021); **3**. and Frontiers in Neuroimaging (since 2021); **4.** Guest Associate Editor in Frontiers in Human Neuroscience; **5.** Regular ad-hoc reviewer for peer-reviewed journals

Evaluation committees: 1. Jury member for the "Clara Campoamor" and "Pascual Madoz" Premios Nacionales de Investigación in the area of social sciences 2023. Ministry of Science and Innovation; **2.** Panelist in the technical-scientific evaluation committee of the Ramon y Cajal and Juan de la Cierva 2022 calls; **3.** Ad-hoc reviewer for calls from the Agencia Estatal de Investigación (2021, 2022, 2023); **4.** Scientific committee for the SEPEX congress 2024 (Almería, Spain); **5**. Scientific Outreach Committee of the International Network for Cross-Linguistic Research on Brain Health (Include) since 2023. **6.** Abstract´s referee for the Organization of the Human Brain Mapping Conference 2022.

Other merits:1. Appointed scientific director for the VII *Aula Blas Cabrera* Summer´s course on Initiation to teaching, research and scientific innovation 2023, Universidad Internacional Menéndez Pelayo (UIMP) and Spanish Ministry of Science and Innovation. Santander, 7-11 August 2023; **2.** Inclusion in the platform "Científicas e Innovadoras". Ministry of Science and Innovation; **3.** Appointed member of the board of directors of the SEPEX since May 2022