

CV Date

15/12/2025

Part A. PERSONAL INFORMATION

First Name	Eva		
Family Name	Martínez Pinilla		
Sex	Female	Date of Birth	
ID number Social Security, Passport			
URL Web			
Email Address			
Open Researcher and Contributor ID (ORCID)			

A.1. Current position

Job Title	Profesora Titular de Universidad		
Starting date	2020		
Institution	University of Oviedo		
Department / Centre	Morphology and Cell Biology / Faculty of Medicine		
Country	Spain	Phone Number	(34) 985102774
Keywords	Drug receptors; Molecular mechanism of disease; Laboratory animals; Cell culture; Tissue culture; Cell biology; Human biology		

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

Period	Job Title / Name of Employer / Country
2016 - 2020	Profesor Ayudante Doctor / University of Oviedo / Spain
2015 - 2016	Profesor Laboral de Sustitución / University of Oviedo / Spain
2015 - 2015	Research associated Juan de la Cierva contract / Foundation for Applied Medical Research / Spain
2014 - 2014	Profesor asociado LOU tipo 3 / University of Oviedo / Spain
2012 - 2014	Research associated Torres Quevedo contract / Foundation for Applied Medical Research / Spain
2011 - 2012	Research Associated / Foundation for Applied Medical Research / Spain
2008 - 2010	Pre-doctoral FPU contract / University of Oviedo / Spain
2006 - 2008	Pre-doctoral FPU fellowship / University of Oviedo / Spain
2004 - 2005	Fellow collaboration / University of Oviedo / Spain

A.3. Education

Degree/Master/PhD	University / Country	Year
Official PhD Program in Neurosciences	University of Oviedo / Spain	2010
Master degree	University of Oviedo / Spain	2007
Biology degree, Sanitary speciality	University of Oviedo / Spain	2005

Part B. CV SUMMARY

Eva Martínez Pinilla earned her Bachelor's degree in 2005 and completed her Ph.D. in 2010. Her doctoral research, conducted under Dr. Jorge Tolivia in the "Neurobiology and Aging" laboratory at the University of Oviedo, was supported by a competitive **FPU Predoctoral Fellowship** (AP2005-3815) from the Spanish Ministry of Education and Science. She also actively participated in research projects, such as SAF2007-64076. During her postdoctoral career, Dr. Martínez Pinilla specialized in the characterization of cannabinoid receptor heteromers as therapeutic targets for neurodegenerative diseases like Alzheimer's and Parkinson's. She carried out this research in the "Cellular and Molecular Pharmacology of the Nervous System" laboratory under Dr. Rafael Franco (**Torres Quevedo Grant**,

PTQ-11-04782) and later in the "Neuroanatomy of the Basal Ganglia Laboratory" under Dr. José Luis Lanciego (**Juan de la Cierva Grant**, FPD1-2013-16410) at CIMA, University of Navarra. At CIMA, she contributed to several national and international projects, including **SAF2012-39875-C02-01**, the **ERA-NET Neuron program**, and **Fundació La Marató de TV3**. In 2015, she joined the "Brain Aging and Neurodegenerative Diseases Group" (GECYEN) at the University of Oviedo, affiliated with the Health Institute of the Principality of Asturias (ISPA) and the Institute of Neurosciences of Asturias (INEUROPA). At GECYEN, she contributed to the project **FIS PI15/0601**, where she developed an in vitro model of Multiple Sclerosis using cuprizone. This model was validated for studying the disease's pathophysiology and assessing protective molecules. Recently, she has led projects on the role of the endocannabinoid system in Multiple Sclerosis (**PAPI-20-EMERG-18**; **2022-073-INTRAMUR-M**) and initiated research on GPCR heterodimeric complexes (OR51E2-A2AR) in the central nervous system. Since November 2023, she has been the **Principal Investigator of the GECYEN group at ISPA**. She currently holds the position of Secretary of the Institute of Neurosciences of the Principality of Asturias (INEUROPA). Dr. Martínez Pinilla has presented her research at over 50 conferences and published 65 indexed articles (69 total), including **16 in D1 and 60 in Q1 journals**, as well as 4 book chapters. Her cumulative impact factor is 278.339, with 1,926 citations and an **h-index of 27 (WOS)**. She is the first or last author in 29 publications and the corresponding author in 39. Her contributions have been recognized with **three research productivity periods** ("research sexenios") by CNEAI. Dr. Martínez Pinilla evaluates national and international research projects. She is a member of "The Foundation Plan Alzheimer," a **technical expert collaborator** in quality assessment for the Evaluation and Accreditation Directorate of the Andalusian Agency of Knowledge (**DEVA-AAC**), and serves on the **training committee and evaluation panel at ISPA**.

Beyond research, she has actively disseminated her work through **outreach initiatives funded by the Spanish Foundation for Science and Technology (FECYT)** and participated in campaigns promoting women in science, such as the 11th February (International Day of Women and Girls in Science) and STEAM projects. She collaborates with leading research groups, including the Molecular Neurobiology Group at the University of Barcelona, led by Dr. Rafael Franco, and the Neurodegenerative Diseases Group at CIBIR, La Rioja, led by Dr. Rafael Peláez Cristóbal (**FEDER La Rioja 2021-2027**). Additionally, she serves as an **advisor for the ProPhySiCE project**, a collaboration between INRAE and PiLeJe funded by the French ANR LabCom program.

As an Associate Professor since 2020, Dr. Martínez teaches courses in Health Sciences undergraduate programs, as well as the Master's in Neuroscience Research at the University of Oviedo. She has mentored **20 undergraduate theses**, **six master's theses** (four awarded Best Thesis for the Neuroscience Master's program), and **three Ph.D. theses**. She also trains clinical and biomedical laboratory technicians.

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**. (1/8) Martínez-Pinilla E (AC); Rubio-Sardón N; Fernández-García G; Villar-Conde S; Menéndez-Pérez C; Tolivia J; del Valle E; Navarro A. 2025. Apolipoprotein D Expression Dynamics During Cuprizone-Induced Demyelination and Remyelination in a Mouse Model of Multiple Sclerosis. *Int J Mol Sci*. 26, pp.8692. <https://doi.org/10.3390/ijms26178692>
- 2 **Scientific paper**. Menéndez-Pérez C; Rivas-Santisteban R; del Valle E; Tolivia J; Navarro A; (6/6) Martínez-Pinilla E (AC). 2024. Heteromers Formed by GPR55 and Either Cannabinoid CB1 or CB2 Receptors Are Upregulated in the Prefrontal Cortex of Multiple Sclerosis Patients. *Int J Mol Sci*. 25-8, pp.4176. <https://doi.org/10.3390/ijms25084176>

- 3 **Scientific paper.** Junceda S; Cruz-Alonso M; Fernández B; Pereiro R; (5/6) Martínez-Pinilla E; Navarro A. 2024. Iron Dysregulation in Alzheimer's Disease: LA-ICP-MS Bioimaging of the Distribution of Iron and Ferroportin in the CA1 Region of the Human Hippocampus. *Biomolecules*. 14, pp.295. <https://doi.org/10.3390/biom14030295>
- 4 **Scientific paper.** Lillo J; García-Pérez I; Lillo A; Serrano-Marín J; (5/7) Martínez-Pinilla E (AC); Navarro G; Franco R. 2023. The olfactory Olfr-78/51E2 receptor interacts with the adenosine A2A receptor. Effect of menthol and 1,8-cineole on A2A receptor-mediated signaling. *Front Pharmacol*. 14, pp.1108617. <https://doi.org/10.3389/fphar.2023.1108617>
- 5 **Scientific paper.** Zamarbide M; (2/6) Martínez-Pinilla E; Gil-Bea FJ; Yanagisawa M; Franco R; Pérez-Mediavilla A. 2022. Genetic Inactivation of Free Fatty Acid Receptor 3 Impedes Behavioral Deficits and Pathological Hallmarks in the APPswe Alzheimer's Disease Mouse Model. *Sci Rep*. 23, pp.3533. <https://doi.org/10.3390/ijms23073533>
- 6 **Scientific paper.** (1/8) Martínez-Pinilla E (AC); Rubio-Sardón N; Villar-Conde S; Navarro G; del Valle E; Tolivia J; Franco R; Navarro A. 2021. Cuprizone-Induced Neurotoxicity in Human Neural Cell Lines Is Mediated by a Reversible Mitochondrial Dysfunction: Relevance for Demyelination Models. *Brain Sci*. 11-2, pp.272. <https://doi.org/10.3390/brainsci11020272>. PMID: 33671675
- 7 **Scientific paper.** (1/8) Martínez-Pinilla E (AC); Rubio-Sardón N; Peláez R; García-Álvarez E; del Valle E; Tolivia J; Larráyoz IM; Navarro A. 2021. Neuroprotective Effect of Apolipoprotein D in Cuprizone-induced Cell Line Models: A Potential Therapeutic Approach for Multiple Sclerosis and Demyelinating Diseases. *Int. J. Mol. Sci*. 22, pp.1260. <https://doi.org/10.3390/ijms22031260>.
- 8 **Scientific paper.** Lillo A; (2/5) Martínez-Pinilla E; Reyes-Resina I; Navarro G; Franco R. 2020. Adenosine A2A and A3 Receptors Are Able to Interact with Each Other. A Further Piece in the Puzzle of Adenosine Receptor-Mediated Signaling. *Int. J. Mol. Sci*. 21, pp.5070. <https://doi.org/10.3390/ijms21145070>.
- 9 **Scientific paper.** (1/8) Martínez-Pinilla E (AC); Rico A.J; Rivas-Santisteban R; Lillo J; Roda E; Navarro G; Lanciego J.L; Franco R. 2020. Expression of GPR55 and either cannabinoid CB1 or CB2 heteroreceptor complexes in the caudate, putamen, and accumbens nuclei of control, parkinsonian, and dyskinetic non-human primates. *Brain Struct. Funct*. 225, pp.2153-2164. <https://doi.org/10.1007/s00429-020-02116-4>.
- 10 **Scientific paper.** (1/8) Martínez-Pinilla E (AC); Rico A.J; Rivas-Santisteban R; Lillo J; Roda E; Navarro G; Franco R; Lanciego J.L. 2020. Expression of cannabinoid CB1R-GPR55 heteromers in neuronal subtypes of the *Macaca fascicularis striatum*. *Ann. N.Y. Acad. Sci*. 1475, pp.34-42. <https://doi.org/10.1111/nyas.14413>.

C.2. Conferences and meetings

- 1 Menéndez-Pérez C; Villar-Conde S; Cachan-Vega C; et al; Martínez-Pinilla E. Exploring cannabinoid receptor expression in the olfactory neuroepithelium of individuals with major psychiatric disorders. XXV Reunión Anual de la Sociedad Española de Investigación sobre Cannabinoides/First Joint Spanish-French Meeting on Cannabinoid Research. Sociedad Española de Investigación en Cannabinoides. 2025. Spain. Participatory - poster.
- 2 Menéndez-Suárez C; Villar-Conde S; Cachán Vega C; Fernández Guisasola P; Menéndez Coto N; Potes Ochoa Y; Coto Montes A; Martínez-Pinilla E. El neuroepitelio como nuevo escenario para la señalización cannabinoide. III Simposio Iberoamericano de Virtual de Neurociencias: Compartiendo saberes, impulsando ciencia. INEUROPA. 2025. Spain. Participatory - poster.
- 3 Menéndez-Suárez C; Pico Alonso A; Villar-Conde S; et al; Martínez-Pinilla E. Identificación de compuestos con potencial neuroprotector en un modelo in vitro de esclerosis múltiple inducido por cuprizona. III Simposio Iberoamericano de Virtual de Neurociencias: Compartiendo saberes, impulsando ciencia. INEUROPA. 2025. Spain. Participatory - poster.
- 4 Menéndez-Suárez C; Cachán-Vega C; Villa Diez R; et al; Martínez-Pinilla E. Caracterización preliminar de la presencia de receptores olfatorios ectópicos en el neuroepitelio de pacientes con trastornos mentales graves". 21º Congreso Internacional sobre Tratamiento Asertivo Comunitario en Salud Mental. Hospital Universitario San Agustín. 2025. Spain. Participatory - poster.

- 5 Menéndez-Suárez C; Llaneza Fernández Z; Navarro A; Franco R; Martínez-Pinilla E. Caracterización de la expresión del receptor olfatorio OR51E2 en el cerebro humano. XXXX Meeting of Young Researchers. Institute of Scientific and Ecological Research. 2024. Spain. Participatory - oral communication.
- 6 Menéndez-Pérez C; Calatayud-Morán JM; Navarro A; Franco R; Martínez-Pinilla E. Neuroprotective potential of targeting CB1 and GPR55 receptors in an in vitro model of multiple sclerosis. XXIII Reunión Anual de la Sociedad Española de Investigación sobre Cannabinoides/First Joint Spanish-French Meeting on Cannabinoid Research. Sociedad Española de Investigación en Cannabinoides. 2024. Spain. Participatory - poster.
- 7 Menéndez-Pérez C; Llaneza-Fernández Z; Navarro-Incio A; Franco R; Martínez-Pinilla E. Caracterización de la expresión del receptor olfatorio OR51E2 en el cerebro humano. II Simposio Iberoamericano de Virtual de Neurociencias: Uniendo conocimientos, avanzando juntos. Instituto de Neurociencias del Principado Asturias. 2024. Spain. Participatory - poster.
- 8 Menéndez-Pérez C; Navarro A; Rivas R; Franco R; Martínez-Pinilla E. Heteromerization of GPR55 and cannabinoid CB1 and CB2 receptors in prefrontal cortex of multiple sclerosis patients. XXIII Reunión Anual de la Sociedad Española de Investigación sobre Cannabinoides/First Joint Spanish-French Meeting on Cannabinoid Research. Sociedad Española de Investigación en Cannabinoides. 2023. France. Participatory - poster.

C.3. Research projects and contracts

- 1 **Project.** Proyectos de Investigación, Desarrollo Tecnológico e Innovación en el Sector Biomédico. Programa FEDER La Rioja 2025-2027 N° 017. Peláez Cristobal. (Centro de Investigación Biomédico de La Rioja). 01/01/2025-31/12/2027. 221,52 €. Team member.
- 2 **Project.** Proyecto de Investigación para Grupos de Investigación Emergentes y Asociados ISPA 2022 (2022-073-INTRAMUR-M). Martínez Pinilla 1. (Universidad de Oviedo). 01/10/2023-01/01/2024. 6.000 €. Principal investigator.
- 3 **Project.** Ayuda para Proyectos de Equipos de Investigación Emergentes 2020, titulado "Heterómeros de receptores cannabinoides: análisis de su potencial como dianas terapéuticas en la Esclerosis Múltiple". Universidad de Oviedo. Eva Martínez Pinilla. (University of Oviedo). 01/01/2020-31/12/2020. 5.400 €. Principal investigator.
- 4 **Project.** F.I.S. PI15/0601, Apolipoproteína D en los procesos de desmielinización y remielinización: Implicación en la Esclerosis Múltiple (APODRIEM). Ministry of Economy and Competitiveness - Institute of Health Carlos III. Jorge Tolivia Fernández. (University of Oviedo). 2016-2018. 68.365 €. Team member. Paper published as result of the applicant's contribution: Martínez-Pinilla E, Rubio-Sardón N, Peláez R, García-Álvarez E, del Valle E, Tolivia J, Larráyoiz IM, Navarro A. Neuroprotective Effect of Ap...
- 5 **Project.** Cannabinoid receptor heteromeric complexes as therapeutic targets in Parkinson's disease. la Fundació La Marató de TV3. Rafael Franco Fernández. (Foundation for Applied Medical Research). 2015-2018. Team member. Paper published as result of the applicant's contribution: Martínez-Pinilla E, Aguinaga D, Navarro G, Rico AJ, Oyarzabal J, Sánchez-Arias JA, Lanciego JL, Franco R. Targeting CB1 and GPR55 endocanna...
- 6 **Project.** SAF2012-39875-C02-01, GPR55, CB1 and CB2 receptor heteromers: From cell signalling and pharmacology to their potential as targets for neurodegenerative diseases (SAF2012-39875-C02-01). Ministry of Economy and Competitiveness. Rafael Franco Fernández. (Foundation for Applied Medical Research). 2013-2015. 304.200 €. Team member. Paper published as result of the applicant's contribution: Martínez-Pinilla E, Reyes-Resina I, Oñatibia-Astibia A, Zamarbide M, Ricobaraza A, Navarro G, Moreno E, Dopeso-Reyes I G, Sierra S, Rico A ...