CV date	04/11/2025

Part A. PERSONAL INFORMATION

First name	Javier		
Family name	Palazuelos Diego		
Gender (*)	Male	Birth date	15/07/1980
ID number	47027445N		
e-mail	j.palazuelos@ucm.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-0409-1398	

A.1. Current position

Position	Profesor Titular		
Initial date	15/12/2022		
Institution	Universidad Complutense de Madrid		
Department/Center	Biochemistry and molecular biology		
Country	Spain	Tel. number	91-3944668
Key words	Cannabinoids, oligodendrocyte precursors, myelination,remyelination,		

A.2. Previous positions (research activity interuptions, art. 13.2.b)

Period	Position/Institution/Country/Interruption cause
2004-2010	Investigador Predoctoral - Universidad Complutense de Madrid
2010-2011	Investigador Postdoctoral - Universidad Complutense de Madrid
2011-2016	Investigador Postdoctoral -Stony Brook University, State University of NY, USA
2016-2017	Profesor Ayudante doctor - Universidad Rey Juan Carlos
2017-2022	Investigador Atracción de Talento - Universidad Complutense de Madrid
2022-2024	Assistant Profesor- Profesor ayudante doctor
2024-2025	Associate Professor- Profesor Titular

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licenciatura en Biología	Universidad Complutense de Madrid	2004
Doctor en Bioquímica y Biología molecular	Universidad Complutense de Madrid	2010

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

Nº Sexenios de investigación: 3. H Index: 18, Total number of articles: 21.
Citations: 2804. Average number of citations per article: 124

BACKGROUND: My strong background in molecular and cellular neuroscience, that includes developmental and regenerative, but also, inflammatory and degenerative contexts, have afforded me a wide perspective of specific neuropathological problems and the skills to approach effective neuroprotective and neuroregenerative therapies in neurological disorders.

AWARDS: My work and career have been awarded multiple times by prestigious organizations at the national and international levels, such as "*young investigator of the year"* by **CIBERNED** and **ASN** (American Society for Neurochemistry), or others by **ACTRIMS** (American Committee for the Treatment and Research in Multiple Sclerosis), **NMSS (**National Multiple Sclerosis Society) and **SEIC** (Spanish Society for Research in Cannabinoids).

TRAINING: During my 9 years of training at **Dr. Guzman**'s lab, I developed several projects focused on the role of the **endocannabinoid system** in neural cell generation, survival, and regeneration, in multiple developmental and degenerative situations by using animal models of excitotoxicity, Huntington disease and multiple sclerosis. During my 5 years of **postdoc** at Dr. **Aguirre**'s lab at Stony Brook University, SUNY, NY, USA, I focused on the role TGF-b and ADAM17 signaling during **oligodendrocyte development** and **regeneration** during developmental myelination and remyelination. I obtained my first **Project as principal investigator** from the National Multiple Sclerosis Society that funded my research from 2013 to 2016 at SUNY.

GROUP LEADER:

In 2013, as a postdoctoral researcher at Stony Brook, State University of New York, I awarded my first research grant as a PI from the National Multiple sclerosis Society (USA), that funded my salary and research until 2016.

I created a new research group, In my search of Assistant Professor positions to set up a new research lab, I moved back to Spain in **2016 as an Assistant Professor** at Rey Juan Carlos I University, when I started applying for Spanish research grants and recruiting lab members and students.

In **2017**, I moved to *Universidad Complutense de Madrid* as I awarded an "***Atracción del Talento Investigador***" grant from CAM, which supported my salary and funded setting the lab up and my initial steps as an independent investigator until 2022.

Group members: I have **Supervised 2 PhD Thesis** that defended in 2022 and 2024 with a *Sobresaliente cum laude*. Both, published 2 research articles as first authors and presented their results in 20 scientific meetings. I am supervising another **PhD student** who is expected to defend her PhD Thesis in 2026. In 2018 I recruited a postdoctoral researcher, who now holds an **Associate Professor** position, *Profesor Contratado Doctor*, and will stay in the lab in the future. I recruited **2 technicians** for managing lab supplies and mouse colonies. I have directed 8 "Trabajos de fin de máster" and 2 "Trabajos de fin de grado", being an average of **6-7 lab members** along these years.

Research Grants as a PI: From the total of 34 research projects I have participated, I have recruited as a PI a total amount of 1.200.000 euros from 2013-2024. I awarded **2 grants** as a **PI** of the "*Atracción de Talento"* program from *Comunidad de Madrid* from 2017 to 2022, **3 grants** of the "***Retos-Generación del conocimiento"*** programs from *MICIIN* from 2018 to 2027, and the ***Consolidación Investigadora*** program from *MICIIN* from 2023 to 2025. I awarded **2 research contracts** for 2 PhD students. I awarded the *Certificación I3*.

Research articles as a PI: I have published 3 research articles as corresponding and last author in *Cell death & disease*, *Brit.J. Pharm.* and *Glia*, with an average **impact factor** of **9.1**. We have submitted 4th and 5th research article as corresponding and last author, and we are preparing 2 review articles also as a PI. I have presented in 32 national and international meetings as last author.

I created a new research line. As the fusion of my PhD and postdoctoral formative periods, I created a **new research line** focused on the role of the endocannabinoid system in oligodendroglial cell fate. I have generated 15 transgenic mouse lines, developing the first genetic mouse models of the endocannabinoid system selective for the oligodendroglial lineage.

Lab equipment: I have acquired the basic **lab equipment**, such as an ultra-freezer, a freezer, a fridge, tissue chopper, and 5 computers, among other materials. I have also created a new animal behavioral room at the school of biology at UCM, able to perform 15 behavioral tests in an automated manner. I collaborate with Drs. Manuel Guzmán and Ismael Galve for sharing equipment such a cryostat, vibratome, cell culture cabins, incubators, or molecular biology equipment.

Reviewer: I have served as panelist of research grants from Retos-MINECO, or FIS-ISCIII, and National Science Foundation (USA). I have served as article reviewer for journals such as *Advanced Science*, *Brit. J. Pharm*., *Mol. Neurobiol*., *Neural Reg. Res.*, *Pharmaceuticals, or Brit. J. Psych*.

Network: I have also created a network of collaborators such as Dr. Lutz (Mainz Univ., Germany), Dr. Marsicano (Magendie, France), Dr. Zimmermann (Institute of Molecular Bioscience, Austria), Drs. Matute and Mato (Achucarro), DR. Urigüen (UPV) Dr. Pardo (CBM-CSIC), Dr. Martínez-Orgado (H. Clínico San Carlos) or Dr. Fernandez-Ruiz and Dr. Sagredo (Complutense University).

Part C. RELEVANT MERITS

C.1. Publications *10 max*

1- Ezquerro-Herce S Sánchez de la Torre A, , Monory K, Galve-Roperh I, Lutz B, Guzman M, Aguado T, **Palazuelos J.** CB1 cannabinoid receptors modulate oligodendrocyte maturation during remyelination. ***Submitted.*** ***Corresponding author.**

2- Sánchez de la Torre A, Ezquerro S, Huerga-Gómez A, Sánchez-Martín E, Chara JC, Matute C, Monory K, Mato S, , Lutz B, Guzmán M, Aguado T & Palazuelos J*. CB1 receptors in NG2 cells mediate cannabinoid-evoked functional myelin regeneration. Progress in Neurobiology. 243, 102683 (2024). Doi: 10.1016/j.pneurobio.2024.102683. IF: 6,7. Ranking Neuroscience: 27/310. D1. *Corresponding author.

3-Sánchez de la Torre A, Aguado T, Huerga-Gomez A, Guzman M, Monory K, Lutz B, Matute C, Mato S, Galve-Roperh I, **Palazuelos J.** CB1 cannabinoid receptors deficiency in oligodendrocyte precursor

cells disrupts oligodendrogenesis and myelination in mice. ***Cell Death & Dis.*** 13:185 (2022). ***IF: 9.01***. Ranking Cell Biology: 35/194. **Q1. *Corresponding author.** Citations: 3.

4- Aguado T, Huerga-Gomez A, Sánchez de la Torre A, Resel E, Matute C, Mato S, Galve-Roperh I, Guzman M, **Palazuelos J.** Tetrahydrocannabinol promotes functional CNS remyelination in the mouse brain. ***Br. J. Pharm.*** 178:4176-4192 (2022). ***IF: 9.47***. Ranking Pharmacology & pharmacy: 18/279. **D1. *Corresponding author.** Citations: 10.

5- Huerga-Gómez A, Aguado T, Sánchez-de la Torre A, Bernal-Chico A, Matute C, Mato S, Guzman M, Galve-Roperh I, **Palazuelos J***. Δ9-tetrahydrocannabinol promotes oligodendrocyte development and CNS myelination *in vivo*. ***Glia.*** 69:532-545(2021). ***IF: 8.07*** Ranking Neuroscience: 32/274. **Q1. *Corresponding author.** Citations: 17.

6- Palazuelos J*, Klingener M, Crawford, HC, Raines EW & Aguirre A*. Oligodendrocyte regeneration and CNS remyelination require TACE/ADAM17. ***J Neurosci.*** 35:12241-7(2015). ***IF: 5.93.*** Ranking Neuroscience: 26/256. **Q1.** Citations: 20. ***Corresponding author.**

7- Palazuelos J, Klingener M & Aguirre A. TGFβ signaling regulates the timing of CNS myelination by modulating oligodendrocyte progenitor cell cycle exit through SMAD3/4/FoxO1/Sp1. ***J Neurosci.*** 34,7917-30 (2014). ***IF: 6.34.*** Ranking Neuroscience: 25/252. **D1**. Citations: 72.

8- Palazuelos J, Ortega Z, Diaz-Alonso J, Guzman M, Galve-Roperh I. CB2 receptors signal neural progenitor cell proliferation through PI3K/Akt/mTORC1. ***J Biol Chem.*** 287:1198-209 (2012). ***IF: 5.52.*** Ranking Biochemistry and Molecular Biology: 62/290. **Q1.** Citations: 152.

9- Palazuelos J, Aguado T, Pazos MR, Julien B, Carrasco C, Resel E, Sagredo O, Benito C, Romero J, Azcoitia I, Fernández-Ruiz J, Guzmán M, Galve-Roperh I. Microglial CB2 cannabinoid receptors are neuroprotective in Huntington's disease excitotoxicity. ***Brain.*** 132, 3152-64 (2009). **IF: 9.45.** Ranking Clinical Neurology: 5/192. **D1** Citations: 311.

10- Palazuelos J, Aguado T, Egia, A, Mechoulam R, Guzmán M & Galve-Roperh I. Non-psychoactive CB2 cannabinoid agonists stimulate neural progenitor proliferation. ***FASEB J.*** 20:2405-2407 (2006). ***IF: 6.72.*** Ranking Biology: 3/65. **D1**. Citations: 217.

C.2. Congress, Total of 64 meeting presentations. 32 as principal investigator.

1- AUTHORS: Sánchez-de la Torre A, Ezquerro S, Sánchez-Martín E, Matute C, Monory K, Mato S, Galve-Roperh I, Lut B, Guzmán M, Aguado T, **Palazuelos J**. *TÍTLE:* An essential role for cannabinoid CB1 receptors in modulating NG2 cells differentiation during myelination and during myelin repair. TYPE: Oral. International Congress on Neurodegenerative Diseases. PLACE: Málaga. DATE: 2023.

2- AUTHORS: Sánchez de la Torre A, Aguado T, Huerga-Gomez A, Juan Carlos Chara, Krisztina Monory, Carlos Matute, Beat Lutz, Susano Mato, Manuel Guzmán, Galve-Roperh I, **Palazuelos J.** *TÍTLE:* Cannabinoid CB1 receptor gene inactivation in oligodendrocyte precursors disrupts oligodendrogenesis and myelination in mice. TYPE: Poster MEETING: *FENS Forum, Federation of European Neuroscience societies*. PLACE: Paris, France. DATE: July 2022.

3- AUTHORS: T Aguado, A Huerga-Gómez, A Sánchez-de la Torre, E Resel, C Matute, S Mato, I Galve-Roperh, M Guzman & **J Palazuelos** *TÍTLE:* Δ9-tetrahydrocannabinol promotes functional remyelination in the mouse brain. TYPE: Poster. MEETING: *European consortium on glial cells in health and disease. Euroglia*. 2021. PLACE: Online. DATE: July 2021.

4- AUTHORS: A. Huerga-Gómez T. Aguado, A. Sánchez-De la Torre, A. Martínez-Cortés, S. Mato, I. Galve-Roperh, M. Guzmán, **J. Palazuelos.** *TÍTLE:* Acute Δ9-THC administration accelerates oligodendrocyte development and regeneration. TYPE: Poster. MEETING: *Gordon research conferences, Cannabinoids*. PLACE: Castelldefels, Barcelona. DATE: July 2019.

5- AUTHORS: T. Aguado A. Huerga-Gómez, S. Mato, I. Galve-Roperh, M. Guzmán, **J. Palazuelos.** TITLE: Acute Δ9-tetrahydrocannabinol administration accelerates oligodendrocyte development and regeneration. TYPE: Poster. MEETING: *European consortium on glial cells in health and disease.* Euroglia. 2019 PLACE: Oporto, Portugal. Congreso Internacional. DATE: July 2019.

6- AUTHORS: **J Palazuelos,** M Klingener and A Aguirre. TITLE: ADAM17 and oligodendrocyte development and regeneration. TYPE: Poster. MEETING: *American Society for Neurochemistry* PLACE: Atlanta, USA. DATE: *March 2015.*

7- AUTHORS: **Javier Palazuelos.** TITLE: ADAM17 and oligodendrocyte development and regeneration. TYPE: INVITED SPEAKER. MEETING: *European Consortium on Glial cells in health and disease.* PLACE: Bilbao. Congreso Internacional. DATE: July 2015.

8- AUTHORS: **J Palazuelos,** M Klingener and A Aguirre. TÍTLE: ADAM17 and oligodendrocyte development and regeneration. TYPE: Poster. MEETING *Gordon Conferences, Biology, Physiology and Pathology of Myelinating Glia*. PLACE: Ventura, CA, USA. DATE: 2014.

C.3. Research projects

C.3.1 Research projects as Principal Investigator.

1- TITLE: Functional relevance of manipulation of oligodendroglial and astroglial subpopulations of monoacylglycerol lipase during myelin homeostasis. REF: PID2023-147395OB-I00. AGENCY: **MICIIN-Generación del conocimiento.** Ministerio de Ciencia e Innovación. FROM: 2024 TO: 2027. PRINCIPAL INVESTIGATOR: **Javier Palazuelos** and Tania Aguado**.** AMOUNT: 200.000 euros. Affiliate center: Complutense University.

2- TITLE: Dissecting the role of the glial monoacylglycerol lipase subpopulations during myelination, demyelination and remyelination. REF: CNS-135321. AGENCY: **MICIIN-Consolidación investigadora.** Ministerio de Ciencia e Innovación. FROM: 2023 TO: 2025. PRINCIPAL INVESTIGATOR: **Javier Palazuelos.** AMOUNT: 199,394 euros. Affiliate center: Complutense University.

3- TITLE: The role of oligodendroglial CB_1 receptors during CNS myelination and remyelination. REF: PID2020-112640RB-I00. AGENCY: **MICIIN - Generación del conocimiento**, Ministerio de Ciencia e Innovación FROM: 2021 TO: 2024. PRINCIPAL INVESTIGATOR: **Javier Palazuelos.** AMOUNT: 145,200 euros. Affiliate center: Complutense University.

4- TITLE: The molecular mechanism of CB_1 receptors modulating oligodendrogenesis during myelination and remyelination. REF: 2020-5A/BMD-19728. AGENCY: **Comunidad de Madrid.** 5 año Atracción del Talento Investigador. FROM: 2021 TO: 2022. PRINCIPAL INVESTIGATOR: **Javier Palazuelos.** AMOUNT: 85,000 euros. Affiliate center: Complutense University.

5- TITLE: Dissecting the role of CB_1 cannabinoid receptors in oligodendrocyte development and regeneration. REF: SAF2017-83516. AGENCY: **MINECO-Retos**, Ministerio de Economía, Industria y Competitividad. FROM: 2018 TO: 2020. PRINCIPAL INVESTIGATOR: **Javier Palazuelos.** AMOUNT: 136,125 euros. Affiliate center: Complutense University.

6- TITLE: The role of the endocannabinoid system in oligodendrocyte development and regeneration during CNS myelination and myelin repair. REF: 2016-T1/BMD-1060. AGENCY: **Comunidad de Madrid.** Programa Atracción del Talento Investigador. Modalidad 1. FROM: 2017 TO: 2021. PRINCIPAL INVESTIGATOR: **Javier Palazuelos.** AMOUNT: Total: 421,000 euros. Salary: 220,000 euros; Research Project:199,000 euros. Affiliate center: Complutense University.

7- TITLE: The role of TGFb signaling in oligodendrocyte development, CNS myelination and remyelination. AGENCY: **National Multiple Sclerosis Society** (USA). FROM: 2013 TO: 2016. PRINCIPAL INVESTIGATOR: **Javier Palazuelos.** Contrato Postdoctoral y proyecto de investigación. AMOUNT: $169,469. Affiliate center: Stony Brook University, State University of New York.

C.3.2 Research contracts as Principal Investigator.

8- TITLE: Papel de los receptores CB1 en el Desarrollo y la regeneración de células oligodendrogliales. AGENCY: **Fundación Tatiana Pérez de Guzmán el Bueno.** Becas predoctorales en Neurociencia. Doctorando: Aníbal Sánchez. FROM: 2020 TO: 2023. PRINCIPAL INVESTIGATOR: **Javier Palazuelos** y Manuel Guzmán. Affiliate center: Complutense University.

9- TITLE: Ayudas para la contratación de investigadores predoctorales cofinanciadas por Fondo Social Europeo a través del Programa Operativo de Empleo Juvenil y la Iniciativa de Empleo Juvenil (YEI). AGENCY: **Comunidad de Madrid.** Doctorando: Alba Huerga. FROM: 2018 TO: 2019. PRINCIPAL INVESTIGATOR: **Javier Palazuelos.** Affiliate center: Complutense University.

C.4. Patents

TITLE: Use of CB2 receptor agonists for promoting neurogenesis. Inventors: Galve-Roperh, I., Guzmán, M., Mechoulam, R., **Palazuelos, J**., Aguado, T. Country of application: USA, Reference: US 60/816,591. Date 27/06/06. Country of application: World, Reference: WO2008/001369 A1 (PCT/IL2007/000785). Date 27/06/07. Enterprise: YISSUM, Pharmos Limited, Israel.