



## CURRICULUM VITAE (CVA)

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

### Part A. PERSONAL INFORMATION

|                |              |
|----------------|--------------|
| <b>CV date</b> | October/2025 |
|----------------|--------------|

|   |  |                   |            |
|---|--|-------------------|------------|
| <b>First name</b>                                 | Javier   |                   |            |
| <b>Family name</b>                                | Fernández Ruiz                                       |                   |            |
| <b>Gender</b>                                     | Male   | <b>Birth date</b> | 12/04/1958 |
| <b>ID number</b>                                  | 05357774Q  |                   |            |
| <b>e-mail</b>                                     | <a href="mailto:jjfr@med.ucm.es">jjfr@med.ucm.es</a> |                   |            |
| <b>Open Researcher and Contributor ID (ORCID)</b> | 0000-0002-4490-0604                                  |                   |            |

#### A.1. Current position

|                          |  |                     |           |
|--------------------------|--|---------------------|-----------|
| <b>Position</b>          | Full Professor                                   |                     |           |
| <b>Initial date</b>      | February 2007                                    |                     |           |
| <b>Institution</b>       | Complutense University                           |                     |           |
| <b>Department/Center</b> | Biochemistry and Molecular Biology               | Faculty of Medicine |           |
| <b>Country</b>           | Spain  | <b>Phone number</b> | 913941450 |
| <b>Key words</b>         | Cannabinoids, neurodegeneration, neuroprotection |                     |           |

#### A.2. Previous positions (research activity interruptions, art. 14.2.b)

| Period                       | Position/Institution/Country/Interruption cause  |
|------------------------------|--|
| October/1989 – February/2007 | Associate Professor/Complutense University/Spain |
| July/1983 - September/1989   | Assistant Professor/Complutense University/Spain |
| January/1981 – June/1983     | Predocctoral Fellow (FPI Programme)/UCM/Spain    |

#### A.3. Education

| PhD, Licensed, Graduate    | University/Country           | Year |
|----------------------------|------------------------------|------|
| PhD Biology (Biochemistry) | Complutense University/Spain | 1986 |
| Biology Degree             | Complutense University/Spain | 1980 |

#### A.4. Bibliometric indicators

- Research articles and reviews: 315
- Book chapters: 45
- Total citations: 19.538 (source: Scopus)
- H index: 80 (source: Scopus)
- Position 29.383 of 230.333 in the World's Top 2% Scientists (2024) published in 2025 by the University of Stanford (USA)

### Part B. CV SUMMARY

Javier Fernández-Ruiz is a PhD in Biochemistry obtained in 1986 in the Complutense University, Madrid, Spain. He is currently Full Professor in the Department of Biochemistry and Molecular Biology, Faculty of Medicine, in such university. Together with his teaching activities in the areas of Neurochemistry and Neurobiology, both in Degree and Master, he has been



working during the last 44 years in different diseases of the Central Nervous System, having authored 266 research articles and 49 review articles in international journals. Also 45 chapters in national and international books and 8 international patents. He has supervised 24 doctoral thesis along 35 years. He has given lectures at different national and international universities and research centers, as well as numerous presentations at national and international congresses. He is currently the Principal Investigator of the “Cannabinoids and Neurological Disorders” research group at the Complutense University, and also at two cooperative networks of excellence research in Spain: CIBERNED and IRYCIS. The main activity of this group is the study of the therapeutic potential of cannabinoids in several neurological diseases, mainly neurodegenerative, activity addressed to the design, synthesis and biological characterization of novel cannabinoids with neuroprotective profile, and to test their therapeutic efficacy at preclinical and clinical levels. They have also conducted research addressed to explore the contribution of endocannabinoid dysregulations in the pathogenesis of neurodegenerative disorders. They are collaborating with several national and international groups, and five pharmaceutical companies: Jazz Pharmaceuticals (formerly GW Pharma), Emerald Health Pharmaceuticals, VivaCell Biotechnology Spain, ANKAR Pharma, Symrise, Roche Pharmaceuticals and Pharmactive Biotech Products. He has participated in numerous research projects, acting as PI in many of them, including 8 research contracts with pharma companies. He has been a member, representing the UCM, in the IRYCIS Governor Committee (2011-2017), a member in the Scientific Advisor Committee of the pharma companies VivaCell Biotechnology-Spain and Linneo Health SL, and a member of the Editorial Board in the British Journal of Pharmacology (up to 2023). He has been President of the International Cannabinoid Research Society (ICRS) (2002-2003) and member of its Executive Committee (2001-2004), as well as a founding member of the Spanish Cannabinoid Research Society (SEIC) and member of its Executive Committee (2000-2013) serving as President during 2007-2011. He has received the IACM Special Award in 2019 and the ICRS Mechoulam Award (for outstanding contributions to the field of cannabinoid research) in 2021.

## Part C. RELEVANT MERITS

### C.1. Publications (10 more relevant in the last 5 years over a total of 315)

- Rodríguez-Cueto C, García-Toscano L, Santos-García I, Gómez-Almería M, Gonzalo-Consuegra C, Espejo-Porras F, **Fernández-Ruiz J**, de Lago E. Targeting the CB receptor and other endocannabinoid elements to delay disease progression in amyotrophic lateral sclerosis. *British Journal of Pharmacology* 178, 1373-1387 (2021)
- Rodríguez-Cueto C, Gómez-Almería M, García-Toscano L, Romero J, Hillard CJ, de Lago E, **Fernández-Ruiz J**. Inactivation of the CB2 receptor accelerated the neuropathological deterioration in TDP-43 transgenic mice, a model of amyotrophic lateral sclerosis. *Brain Pathology* 13, e12972 (2021)
- González-Mariscal I, Carmona-Hidalgo B, Winkler M, Unciti-Broceta JD, Escamilla A, Gómez-Cañas M, **Fernández-Ruiz J**, Fiebich BL, Romero-Zerbo SY, Bermúdez-Silva FJ, Collado JA, Muñoz E. (+)trans-Cannabidiol-2-hydroxypentyl is a dual CB1R antagonist/CB2R agonist that prevents diabetic nephropathy in mice. *Pharmacological Research* 169, 105492 (2021)
- Galán-Ganga M, Rodríguez-Cueto C, Merchán-Rubira J, Hernández F, Ávila J, Posada-Ayala M, Lanciego JL, Luengo E, López MG, Rábano A, **Fernández-Ruiz J**, Lastres-Becker I. Cannabinoid receptor CB2 ablation protects against TAU induced neurodegeneration. *Acta Neuropathology Communications* 9, 90 (2021)
- Alonso C, Satta V, Hernández-Fisac I, **Fernández-Ruiz J**, Sagredo O. Disease-modifying effects of cannabidiol,  $\beta$ -caryophyllene and their combination in Syn1-Cre/Scn1a<sup>WT/A1783V</sup> mice, a preclinical model of Dravet syndrome. *Neuropharmacology* 237, 109602 (2023)
- Santos-García I, Rodríguez-Cueto C, Villegas P, Piscitelli F, Lauritano A, Shen CKJ, Di Marzo N, **Fernández-Ruiz J**, de Lago E. Preclinical investigation in FAAH inhibition as a neuroprotective therapy for frontotemporal dementia using TDP-43 transgenic male mice. *Journal of Neuroinflammation* 20, 108 (2023)
- Gonzalo-Consuegra C, Santos-García I, García-Toscano L, Martín-Baquero R, Rodríguez-



Cueto C, Wittwer MB, Dzygiel P, Grether U, de Lago E, **Fernández-Ruiz J**. Involvement of CB<sub>1</sub> and CB<sub>2</sub> receptors in neuroprotective effects of cannabinoids in experimental TDP-43 related frontotemporal dementia using male mice. *Biomedicine & Pharmacotherapy* 174, 116473 (2024)

- Burgaz S, Navarro E, Rodríguez-Carreiro S, Navarrete C, Garrido-Rodríguez M, Lastres-Becker I, Chocarro J, Lanciego JL, Muñoz E, **Fernández-Ruiz J**. Investigation in the cannabigerol derivative VCE-003.2 as a disease-modifying agent in a mouse model of experimental synucleinopathy. *Behavioral and Brain Functions* 20, 28 (2024)
- García-Toscano L, Rodríguez-Cueto C, Furiano A, Hind W, de Lago E, **Fernández-Ruiz J**. Preclinical evaluation of cannabidiolic acid as a neuroprotective agent in TDP-43 transgenic mice, an experimental model of amyotrophic lateral sclerosis. *Biomedicine & Pharmacotherapy* 189, 118288 (2025)
- Gómez-Almería M, Gonzalo-Consuegra C, Rodríguez-Cueto C, Cabañas-Cotillas M, Jiménez-Amor A, Machín-Díaz I, Wittwer M, Dzygiel P, Clemente D, Grether U, **Fernández-Ruiz J**, de Lago E. Relevance of a peripheral site of action outside the brain-blood barrier for the beneficial effects of CB<sub>2</sub> receptor activation in experimental ALS in male mice. *Cell Communication and Signaling* 23, 427 (2025)

## C.2. Congress (only invited lectures in international meetings during the last years)

- Cannabinoid Function in the CNS. Gordon Research Conference: 2015 in Lucca (Italy)
- IBRO-Kemali School: 2015 in Naples (Italy)
- Sociedad Española de Farmacología - Joint meeting with BPS: 2017 in Barcelona
- Congreso Internacional Médico-Quirúrgico CIMQ17: 2017 in Santiago de Compostela
- Meeting of the Mediterranean Neuroscience Society: 2017 in Malta
- European Workshop on Cannabinoid Research: 2017 in Roehampton (UK)
- Cannabis Symposium: Phytochemical, pharmacological and clinical evidence: 2018 in Vienna (Austria)
- Medical Marijuana in PD: 2019 in Denver (USA)
- VII Congreso Internacional de Investigación e Innovación en Enfermedades Neurodegenerativas: 2019 in Valencia
- International Workshop on ALS: new genes, new treatments, new hopes: 2019 in Madrid
- IACM-Conference on Cannabinoids in Medicine: 2019 in Berlin (Germany)
- Medical Cannabis Conference - CannX: 2020 in Lisbon (Portugal)
- Cannabis Europa: 2020 in Madrid
- ICRS Annual Meeting: 2022 in Galway (Ireland) and 2024 in Salamanca (Spain)

## C.3. Research projects (more relevant in the last 5 years and only as PI)

- Investigación en el sistema endocannabinoide en patologías relacionadas con desregulación de TDP-43 (esclerosis lateral amiotrófica y demencia frontotemporal). Source: Ministerio de Ciencia, Innovación y Universidades. Plan Nacional I+D+i – Biomedicina (RTI2018-098885-B-100). Funding: 266.200 euros; Period: 2019-2022.
- Potential of the endocannabinoid system against pathogenic mechanisms associated with neurodegeneration: emphasis on glial reactivity and protein aggregation. Source: Ministerio de Ciencia e Innovación. Plan Nacional I+D+i – Biomedicina (PID2021-128906OB-I00). Funding: 296.450 euros; Period: 2022-2025.
- Investigating GPR55 as a novel neuroprotective target in experimental Parkinson's disease. Source: Michael J. Fox Foundation (USA) (MJFF-022552). Funding: 207.000 USD; Period: 2023-2024.

## C.4. Contracts, technological or transfer merits (last years; PI: Javier Fernández Ruiz)

- Preclinical development of phytocannabinoid-based therapies for the treatment of disease progression in amyotrophic lateral sclerosis/frontotemporal dementia using TDP-43 transgenic mice. Funded by GW Research Ltd., UK (01/08/2015 – 31/12/2018)



- Investigation in the anti-inflammatory and neuroprotective properties of the phytocannabinoid derivative VCE003.2 in Parkinson's disease using LPS-lesioned  $\alpha$ -synuclein transgenic mice. Funded by VivaCell Biotechnology-Spain (2017-2019).
- Investigation in the anti-inflammatory and neuroprotective properties of the phytocannabinoid derivatives VCE004.8, VCE-003.2 (and its analogs CBG-Q-Salt and CBGA-Q) in Parkinson's disease using 6-hydroxydopamine-lesioned mice. Funded by Emerald Health Pharmaceuticals (2018-2019).
- Investigation in the therapeutic properties of different neuroprotectant synthetic agents in preclinical models of amyotrophic lateral sclerosis. Funded by ANKAR Pharma (2020)
- 6th Award of Technology and Knowledge Transfer by the Complutense University (2021)
- Investigation in the anti-inflammatory and neuroprotective properties of the phytocannabinoid derivative VCE-003.2 in Parkinson's disease using adeno-associated viral vector-mediated overexpression of mutant A53T  $\alpha$ -synuclein in mice. Funded by Emerald Health Pharmaceuticals (2022)

### C.5. Patents (last years)

- Use of cannabinoids in the treatment of a neurodegenerative disease or disorder. Gray R, Hind W, Whalley B, de Lago E, Rodríguez-Cueto C, García-Toscano L, Santos-García I, **Fernández-Ruiz J** (WO2019/012267A1). GW Research Ltd
- Antidyskinetic potential of the phytocannabinoid  $\Delta^9$ -THCV. Whalley B, **Fernández-Ruiz J**, Moratalla R (WO2021/038219A1). GW Research Ltd

### C.6. Doctoral thesis supervised (last 5 years; over a total of 24)

- Desarrollo de estrategias terapéuticas basadas en cannabinoides para el tratamiento de la esclerosis lateral amiotrófica. Laura García Toscano. UCM, Facultad de Medicina, 2021. Sobresaliente *cum laude* y Mención Internacional
- Potencial terapéutico del sistema endocannabinoide en el espectro ELA-DFT. Irene Santos-García Sanz. UCM, Facultad de Medicina, 2021. Sobresaliente *cum laude*.
- Towards new therapeutic strategies based on cannabinoids for Dravet syndrome. Cristina Alonso Gómez. UCM, Facultad de Medicina, 2021. Sobresaliente *cum laude* y Mención Internacional
- CB2, PPAR- $\gamma$  and GPR55 as pharmacological targets for an anti-inflammatory and neuroprotective treatment of Parkinson's disease. Sonia Burgaz García-Oteyza. Universidad Complutense, Facultad de Medicina, 2022. Sobresaliente *cum laude*.
- Exploring new targets for developing cannabinoid-based therapies in Parkinson's disease. Santiago Rodríguez Carreiro. Universidad Complutense, Facultad de Medicina, 2025. Sobresaliente *cum laude* y Mención Internacional.