

**Part A. PERSONAL INFORMATION**

**CV date**

12/10/2019

First and Family name	David Fernández de Sevilla García		
Social Security, Passport, ID number	52502795M	Age	46
Researcher codes	WoS Researcher ID (*)	AAA-9138-2019	
	SCOPUS Author ID(*)		
	Open Researcher and Contributor ID (ORCID) **	0000-0001-6344-0773	

(\*) At least one of these is mandatory

(\*\*) Mandatory

**A.1. Current position**

Name of University/Institution	Universidad Autónoma de Madrid		
Department	Anatomía, Histología y Neurociencia / Facultad de Medicina		
Address and Country	paseo capa negra 4 P12 P2C, Rivas Vaciamadrid, 28522, Madrid		
Phone number	(+34) 675317605	E-mail	david.fernandezdesevilla@uam.es
Current position	Associate professor	From	2013
Key words	Molecular and Cellular Biology, genetics , Neuroscience and Electrophysiology, Neurophysiology		

**A.2. Education**

PhD	University	Year
PhD in Medicine	Universidad Autónoma de Madrid	2000
Bachelor in Chemistry	Universidad Autónoma de Madrid	1996

**A.3. JCR articles, h Index, thesis supervised...**

Number of research merits (sexenios): **3**

Date of the last research merit: **24 de Junio de 2019**

Number of Doctoral Thesis supervised: **1**

Number of ongoing Doctoral Thesis: **1**

Number of citations: **690**

Number of Research papers: **23**

Number of Research papers in the first quartile (Q1): **17**

H index: **14**

David Fernández de Sevilla García presents a continuous line of quality research in an expert research group in the field of Neuroscience, which has allowed him to publish constantly in high-impact journals. Indeed, he is co-author of **23 indexed scientific publications**, most of them belonging to the first quartile and **77% in the first decile** of the Neuroscience area, being in approximately, half of them first author and in **6 of them the corresponding Author**. Over the years, he has maintained a coherent line of research with a good temporal regularity, which undoubtedly enables him to lead a research group. The quality of the research carried out is evidenced not only by the impact index of the journals in which the results have been published (PlosBio with impact factor: 12.6 and in PNAS with impact factor 9.67), but also by the number of citations made by other researchers. The type of research he has done has not led him to have any type of transfer. This research has been possible with regular funding of 10 national projects, of which he is the principal investigator of the last four, demonstrating his leadership capacity.

**Part B. CV SUMMARY (max. 3500 characters, including spaces)**

Since my Degree in Chemical Sciences at the Autonomous University of Madrid (1996) my scientific career has gone through the completion of my doctoral thesis (1997-2001) in the laboratory of Professor Washington Buño at the Cajal Institute (CSIC). It followed by a first postdoctoral stay (2001-2003) in the laboratory of Dr. Alvaro Villarroel at the Cajal Institute (CSIC) and a second post-doctoral stage (2003-2007) in the laboratory of Professor Washington Buño. Then I started in 2008 to enjoy a **Ramón y Cajal contract** at the Autonomous University of Madrid



(UAM). Thanks to my first project as IP (**BFU2008-03488**), I was able to set up my laboratory and continue my scientific and teaching work at the UAM. In 2011, with the second project as IP (**BFU2011-23522**), I was able to form my own research group by being able to hire Dr. Laura Eva Maglio and by hiring and directing the thesis of Andrea Diez García. Later in 2013, I was able to continue with my scientific career thanks to my stabilization as a professor of hired doctor at le UAM and the **BFU2013-43668-P** project. We are currently carrying out the **BFU2016-80802-P** project that is allowing José Noriega to complete his doctoral thesis under my direction. During these 22 years (1997-2019) the main scientific achievements have been related to the understanding of the cellular and circuit mechanisms involved in the phenomena of synaptic plasticity and plasticity of neuronal intrinsic properties that are known to be regulated by astrocytes and involved in cognitive processes such as memory and learning. For the past 3 years, I am collaborating with Prof. Ignacio Torres-Alemán, from Institute Cajal (CSIC) and with Prof Alfonso Araque, from University of Minnesota to study of the influence of IGF-I in the brain activity. The modulation of the synaptic plasticity by IGF-I can be key in many neurodegenerative processes such as Alzheimer's disease. I would also like to add the following merits:

1. Lecturer ANECA Positive evaluation in 2015
2. Positive evaluation of the I3 program (ANEP 2011).
3. Reviewer for research projects for the ANEP (2009, 2010 y 2011).
4. Reviewer of Journal of Neuroscience, Research, Brain Research, eNeuron etc...
5. Award for the most relevant publication in the Neuroscience field of the IdIPAZ year 2010
6. Secretary of the Comisión of the Master/Doctorate in Neurosciences 2012-2015 de la UAM.
7. Degree Project Supervisor:
  - Carla Marina Silgado Westerved 2011/2012.
  - Sara Martín Aparicio 2014/2015.
  - Lydia Arana Hellmuth 2017/2018.
8. Master Thesis Supervisor:
  - María Jesús Maraver Romero 2012/2013.
  - Yasir Gallero Salas 2013/2014.
  - Oscar de la Torre Burgos 2014/2015.
  - Irene Benerice Maroto Martinez 2015/2016
  - Antonio Muñoz Callejas 2016/2017
  - Lydia Arana Hellmuth 2019/2020.

## Part C. RELEVANT MERITS

### C.1. Publications (including books)

1. **Scientific paper.** Noriega-Prieto JA, Maglio LE, Gallero-Salas Y, Fernández de Sevilla D. **2019.** Nitric Oxide-Dependent LTD at Infralimbic Cortex. **Neuroscience.** Elsevier. 418, pp.149-156.
2. **Scientific paper.** Maglio LE, Noriega-Prieto JA, Maraver MJ, Fernández de Sevilla D. **2018.** Endocannabinoid-Dependent Long-Term Potentiation of Synaptic Transmission at Rat Barrel Cortex. **Cerebral Cortex** (New York, N.Y. :1991). 28, pp.1568-1581. ISSN 1047-3211.
3. **Scientific paper.** Domínguez S, Fernández de Sevilla D, Buño W. **2017.** Acetylcholine Facilitates a Depolarization-Induced Enhancement of Inhibition in Rat CA1 Pyramidal Neurons. **Cerebral cortex** (New York, N.Y. : 1991). 27, pp.852-862.
4. **Scientific paper.** Díez-García A, Barros-Zulaica N, Núñez A, Buño W, Fernández de Sevilla D. **2017.** Bidirectional Hebbian Plasticity Induced by Low-Frequency Stimulation in Basal Dendrites of Rat Barrel Cortex Layer 5 Pyramidal Neurons. **Frontiers in Cellular Neuroscience.** 11, pp.8.
5. **Scientific paper.** Domínguez S, Fernández de Sevilla D, Buño W. **2016.** Muscarinic Long-Term Enhancement of Tonic and Phasic GABAA Inhibition in Rat CA1 Pyramidal Neurons. **Frontiers in Cellular Neuroscience.** 10, pp.244.
6. **Scientific paper.** Domínguez S, Fernández de Sevilla D, Buño W. **2014.** Postsynaptic activity reverses the sign of the acetylcholine-induced long-term plasticity of GABAA



inhibition. **Proceedings of the National Academy of Sciences of the United States of America**. 111, pp.E2741-50. ISSN 0027-8424.

7. **Scientific paper**. Ahumada J, Fernandez de Sevilla D, Couve A, Buno W, Fuenzalida M. **2013**. Long-term depression of inhibitory synaptic transmission induced by spike-timing dependent plasticity requires coactivation of endocannabinoid and muscarinic receptors. **Hippocampus**. 23, pp.1439-52. ISSN1050-9631.
8. **Scientific paper**. Navarrete M, Perea G, Fernandez de Sevilla D, Gomez-Gonzalo M, Nunez A, Martin ED, Araque A. **2012**. Astrocytes mediate in vivo cholinergic-induced synaptic plasticity. **PLoS biology**. 10, pp.e1001259. ISSN 1544-9173.
9. **Scientific paper**. Nunez A, Dominguez S, Buno W, Fernandez de Sevilla D. **2012**. Cholinergic-mediated response enhancement in barrel cortex layer V pyramidal neurons. **Journal of Neurophysiology**. 108, pp.1656-68. ISSN0022-3077.
10. **Scientific paper**. Fernández de Sevilla D, Buño W. **2010**. The muscarinic long-term enhancement of NMDA and AMPA receptor-mediated transmission at Schaffer collateral synapses develop through different intracellular mechanisms. **The Journal of Neuroscience**. 30, pp.11032-42. ISSN 0270-6474.
11. **Scientific paper**. Fuenzalida M, Fernandez de Sevilla D, Couve A, Buno W. **2009**. Role of AMPA and NMDA receptors and back-propagating action potentials in spike timing-dependent plasticity. **Journal of Neurophysiology**. 103, pp.47-54. ISSN 0022-3077

## C.2. Research projects and grants

1. PAPEL DE LOS ASTROCITOS EN LA PLASTICIDAD SINAPTICA INDUCIDA POR IGF1 EN LA CORTEZA DE BARRILES. **Principal investigator: David Fernandez de Sevilla Garcia**. (Universidad Autónoma de Madrid). 01/01/2017-31/12/2019. Budget: 130000 €.
2. PLASTICIDAD NEURAL INDUCIDA POR IGF1 EN LA CORTEZA PREFRONTAL Y SU PAPEL EN LA MEMORIA DE EXTINCIÓN DEL MIEDO CONDICIONADO. **Principal investigator: David Fernandez de Sevilla Garcia**. (Universidad Autónoma de Madrid). 01/01/2014-31/12/2016. Budget: 125.000 €.
3. MECANISMOS CELULARES Y CIRCUITALES IMPLICADOS EN PLASTICIDAD CORTICAL: PAPEL DE LAS ESPIGAS DE CALCIO EN LA CORTEZA DE BARRILES. **Principal investigator: David Fernandez de Sevilla Garcia**. (Universidad Autónoma de Madrid). 01/01/2012-31/12/2013. Budget: 145.200 €.
4. INTERACCIÓN ENTRE LOS SISTEMAS ENDOCANNABINOIDE Y COLINÉRGICO EN LA REGULACIÓN DE LA EXCITABILIDAD NEURONAL Y LA PLASTICIDAD SINÁPTICA EN EL HIPOCAMPO. **Principal investigator: David Fernandez de Sevilla Garcia**. (Universidad Autónoma de Madrid). 01/01/2009-31/12/2011. Budget: 166.980 €

## C.3. Contracts

None

## C.4. Patents

None

**C.5, C.6, C.7... (e. g., Institutional responsibilities, memberships of scientific societies...)**



**Secretary of the Comisión de Master y Doctorado del Departamento de Anatomía Histología y Neurociencia** de la Facultad de Medicina de la Universidad Autónoma de Madrid (from January 2012 to April, 2015)

**Memberships of Sociedad Española de Neurociencia** (from 2009 to 2019)