

Date of the CVA

22/11/2018

Section A. PERSONAL DATA

Name and Surname	Martiniano Santiago Pavón		
DNI	06970216C	Age	60
Researcher's identification number	Researcher ID	H-1362-2015	
	Scopus Author ID	7103137381	
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A.1. Current professional situation

Institution	Universidad de Sevilla		
Dpt. / Centre	Bioquímica y Biología Molecular / Facultad de Farmacia		
Address	C/ Nuestra Señora del Pilar, 5, P-6. 1ºA, 41012, Sevilla		
Phone	648027104	Email	msantiago@us.es
Professional category	Catedrático de Universidad	Start date	2012
UNESCO spec. code	249000 - Neurosciences		
Keywords			

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
DOCTOR EN CIENCIAS BIOLÓGICAS	UNIVERSIDAD DE SEVILLA. BIOQUÍMICA, BROMATOLOGÍA TOXICOLOGÍA Y MEDICINA LEGAL	1987
Licenciado en Ciencias Biológicas	Universidad de Sevilla	1981

A.3. General quality indicators of scientific production

Five sexenios with positive evaluation (1986-1991, 1992-1997, 1998-2003, 2005-2010 and 2011-2016).

Principal Investigator of the Research Project SAF2007-62425.

65 articles published in international journals and three book chapters.

Participation in 14 R + D + I projects

25 communications to congresses.

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Section B. SUMMARY OF THE CURRICULUM

In January 1984, I started working in the Department of Biochemistry, Bromatology and Toxicology of the Faculty of Pharmacy to do my Doctoral Thesis entitled: "Study of the concentration of biogenic amines in different brain structures during development, aging and deprivation visual".

Once the thesis was finished, I obtained a fellowship for research personnel abroad with which I was working for two years (1/10/88-1/9/90) with Dr. Ben Westerink of the Faculty of Pharmacy of the University of Groningen in Holland. There, I made an interesting pharmacological study in the nigrostriatal dopaminergic pathway, in which, for the first time, a somatodendritic release of dopamine dependent on nerve impulse was demonstrated. Also new was the fact of implanting a microdialysis cannula in the substantia nigra to locally apply drugs in the soma and dendrites and another cannula in the striatum to quantify the effect in the release of dopamine in this center.

In October 1990 I returned to the Department of Biochemistry, Bromatology and Legal Toxicology with a Reincorporation fellowship, in which I am still working, but now with the name of Biochemistry and Molecular Biology.

The studies I have done these years are focused, above all, on Parkinson's disease. We have worked with the compound 1-methyl-4-phenylpyridinium (MPP+). In our experiments we perfused through the MPP+ microdialysis cannula into the striatum of control rats. The damage produced by MPP+ in control rats is compared with that produced in rats that have been previously treated with a drug. From these data we can suggest if this drug is able to protect or aggravate the damage caused by MPP+.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

- 1 **Scientific paper.** García-Domínguez I.; et al. 2018. Peripheral Inflammation Enhances Microglia Response and Nigral Dopaminergic Cell Death in an in vivo MPTP Model of Parkinson's Disease *Front. Cell. Neurosci.* 12.
- 2 **Scientific paper.** A. Ismaiel; et al. 2016. Metformin, besides exhibiting strong in vivo anti-inflammatory properties, increases MPTP-induced damage to the nigrostriatal dopaminergic system *Toxicology and Applied Pharmacology.* 298, pp.19-30.
- 3 **Scientific paper.** E. Kavanagh; et al. 2015. Deletion of caspase-8 in mouse myeloid cells blocks microglia pro-inflammatory activation and confers protection in MPTP neurodegeneration model *Aging.* 7, pp.673-689.
- 4 **Scientific paper.** E. Gallardo; et al. 2015. Effect of intracerebral hydroxytyrosol and its nitroderivatives on striatal metabolism: A study by in vivo microdialysis *Life Sciences.* Elsevier. 134, pp.30-35.
- 5 **Scientific paper.** Burguillos-García, Miguel Angel; et al. 2015. Microglia-secreted Galectin-3 acts as a Toll-Like Receptor-4 ligand and contributes to microglial activation *CELL REPORTS.* 10-9, pp.1626-1638.
- 6 **Scientific paper.** Machado-De La Quintana, Alberto; et al. 2014. Chronic stress as a risk factor for Alzheimer's disease *Reviews in the neurosciences.* 25-6, pp.785-804.
- 7 **Scientific paper.** A.M. Espinosa-Oliva; R.M. de Pablos; M. Santiago. 2014. In vivo effect of apomorphine and haloperidol on MPP+ neurotoxicity *Pharmacology.* Karger A.G.. 93, pp.101-107.
- 8 **Scientific paper.** Gallardo-Morillo, Elena; et al. 2014. In vivo striatal measurement of hydroxytyrosol, and its metabolites (homovanillic alcohol), compared with its derivative nitrohydroxytyrosol *Neuroscience Letters.* 579, pp.173-176.
- 9 **Scientific paper.** Espinosa-Oliva, Ana Maria; et al. 2014. Role of dopamine in the recruitment of immune cells to the nigrostriatal dopaminergic structures *NeuroToxicology.* 41-C, pp.89-101.
- 10 **Scientific paper.** Gallardo-Morillo, Elena; et al. 2014. The effect of hydroxytyrosol and its nitroderivatives on catechol-O-methyl transferase activity in rat striatal tissue *The Royal Society of Chemistry Advances.* 4, pp.61086-61091.
- 11 **Scientific paper.** Hernandez-romero, M^a Carmen; et al. 2012. Peripheral inflammation increases the deleterious effect of CNS inflammation on the nigrostriatal dopaminergic system *Neurotoxicology.* 33, pp.347-360.
- 12 **Scientific paper.** Machado-De La Quintana, Alberto; et al. 2011. Peripheral inflammation increases the damage in animal models of nigrostriatal dopaminergic neurodegeneration: Possible implication in Parkinson's disease incidence *Parkinson's Disease.* 2011, pp.1-9.

C.2. Participation in R&D and Innovation projects

- 1 SAF2015-64171-R, Funciones Apoptóticas y no Apoptóticas de las Caspasas Asesinas en el Sistema Nervioso Central en Condiciones Normales y Patológicas José Luis Venero Recio. (Ministerio de Economía y Competitividad). 01/01/2016-31/12/2018. Team member.
- 2 SAF2012-39029, PAPEL DE LA CASPASA-8 EN EL PROCESO DE INFLAMACIÓN CEREBRAL ASOCIADO A LA NEURODEGENERACIÓN JOSE LUIS VENERO RECIO. 01/01/2013-31/12/2015. 133.100 €. Team member.

- 3 P10-CTS-6494, ESTUDIO DE LOS MECANISMOS MOLECULARES QUE REGULAN LA INFLAMACIÓN CEREBRAL Y LA LONGEVIDAD. DISEÑO DE ESTRATEGIAS FARMACOLOGICAS ENCAMINADAS A MINIMIZAR EL DAÑO NEURONAL ASOCIADO A LA INFLAMACION CEREBRAL PROYECTOS DE EXCELENCIA, JUNTA DE ANDALUCÍA. JOSE LUIS VENERO RECIO. From 15/03/2011. 294.652 €.
- 4 P09-CTS-5244, Estudio de los cambios que experimentan con el envejecimiento las rutas que JUNTA ANDALUCÍA. ALBERTO MACHADO DE LA QUINTANA. From 03/03/2011.

C.3. Participation in R&D and Innovation contracts

C.4. Patents